Documents of the World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Frequency Bands 11.7-12.2 GHz (Regions 2 and 3) and 11.7-12.5 GHz (Region 1) (WARC SAT-77)

(Geneva, 1977)

To reduce download time, the ITU Library and Archives Service has divided the conference documents into sections.

- This PDF includes Document DT No. 1 – 53.
- The complete set of conference documents includes Document No. 1 - 388, DL No. 14 – 50 (incomplete), DT No. 1 - 53.

This electronic version (PDF) was scanned by the International Telecommunication Union (ITU) Library & Archives Service from an original paper document in the ITU Library & Archives collections.

La présente version électronique (PDF) a été numérisée par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'un document papier original des collections de ce service.

Esta versión electrónica (PDF) ha sido escaneada por el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un documento impreso original de las colecciones del Servicio de Biblioteca y Archivos de la UIT.

هذه النسخة الإلكترونية (PDF) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (ITU) والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلاً.

此电子版（PDF版本）由国际电信联盟（ITU）图书馆和档案室利用存于该处的纸质文件扫描提供。

Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/1-E
9 January 1977

PLENARY MEETING

BCSAT - TERMS OF REFERENCE OF COMMITTEES

Committee 1 - Steering Committee

To coordinate the work of the Committees, fix the timetables of meetings, etc.

Committee 2 - Credentials Committee

To verify the credentials of delegations and to report on its conclusions to the Plenary Meeting within the time specified by the latter.

Committee 3 - Budget Control Committee

To determine the organization and the facilities available to the delegates and to examine and approve the accounts for expenditure incurred throughout the duration of the Conference.

Committee 4 - Technical Committee

To establish the basic technical characteristics for the Broadcasting-Satellite Service and the sharing criteria between the Broadcasting-Satellite Service and the other services concerned for planning the use of the bands 11.7-12.2 GHz (in Regions 2 and 3) and 11.7-12.5 GHz (in Region 1) for the Satellite Broadcasting Service, taking into account the Report of the CCIR (May/June 1976).

Committee 5 - Planning Committee

To establish the principles on which planning should be based for the Broadcasting-Satellite Service in the bands 11.7-12.2 GHz (Regions 2 and 3) and 11.7-12.5 GHz (Region 1) taking into account sharing criteria with other services and other basic technical parameters.

To plan for the Broadcasting-Satellite Service and to determine the data to be included in the Plan.

Committee 6 - Procedures Committee

To establish procedures to govern the use of the bands 11.7-12.2 GHz (Regions 2 and 3) and 11.7-12.5 (Region 1) by the Broadcasting-Satellite Service and by the other services to which these bands are allocated, to the extent considered necessary by the Conference.

Committee 7 - Rearrangement of the Radio Regulations

To consider the results of the work of the Group of Experts on the possible rearrangement of the Radio Regulations and make recommendations to Administrations on the use of the proposed structure in the presentation of their proposals to the World Administrative Radio Conference in 1979.

Committee 8 - Editorial Committee

To perfect the form of the texts of the Final Acts without altering the sense.

ARCHIVES

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/2-E
11 January 1977
Original : French

COMMITTEE 4

DRAFT

ORGANIZATION OF THE WORK OF THE COMMITTEE

I. Terms of reference of Working Group 4A

(Technical parameters required for planning)

To establish the basic technical characteristics required for planning the broadcasting-satellite services; these include :

1.1 type of modulation, transmitting bandwidth and channel spacing

1.2 transmitting and receiving antenna radiation pattern

1.3 protection ratio

1.4 maintenance of the satellite in position and accuracy of pointing the antenna beams

1.5 radio propagation factors

1.6 angle of elevation of receiving antenna

II. Terms of reference of Working Group 4B

(Sharing criteria)

To establish the sharing criteria between the broadcasting-satellite services and the other services : the fixed service and the mobile service (other than the aeronautical mobile service); the broadcasting service, the fixed-satellite service (space to earth) in Region 2 and to define inter alia :

2.1 the power flux density at the limit of the service area

2.2 the e.i.r.p. in the case of sharing with the fixed-satellite service

2.3 the global characteristics of receiving installations (G/T)

2.4 energy dispersal

2.5 the influence of the type of polarization

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/3-E
6 January 1977
Original : French

PLENARY MEETING

Note by the Secretary-General

ALLOCATION OF DOCUMENTS

(Nos. 1 to 28)

Plenary	1, 19, 25, 26, 28
Committee 2 - Credentials	3
Committee 3 - Budget control	20, 21
Committee 4 - Technical	2, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, 18, 22, 23, 24, 27
Committee 5 - Planning	2, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 23, 24, 27
Committee 6 - Procedures	2, 5, 7, 9, 10, 11, 12, 14, 18, 24, 27
Committee 7 - Re-arrangement of the RRs	RR1, RR2

M. MILI

Secretary-General

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/4-E
6 January 1977
Original : French

HEADS OF DELEGATION

DRAFT AGENDA

FIRST PLENARY MEETING

Monday, 10 January 1977, at 1500 hrs

Room I

		Document No.
1.	Opening of the Conference	-
2.	Election of the Chairman of the Conference	-
3.	Election of the Vice-Chairmen of the Conference	-
4.	Address by the Secretary-General	-
5.	Committee structure and organization of the work of the Conference	DT/1
6.	Election of Chairmen and Vice-Chairmen of Committees	-
7.	Composition of the Conference Secretariat	-
8.	Allocation of documents to the Committees	DT/3
9.	Invitations to the Conference and participation	19, 25, 28
10.	Participation of international organizations in the work of the Conference	26 (+ Add.)
11.	Date by which the Credentials Committee shall formulate its conclusions	-
12.	Timetable	
13.	Other business	

M. MILI
Secretary-General

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/5-E
11 January 1977
Original : French

COMMITTEE 4

DRAFT

ALLOCATION OF DOCUMENTS

TO WORKING GROUPS 4A AND 4B

Doc. No.	4A	Doc. No.	4B
2	Addendum Nos. 1 and 2 and Corrigendum No. 1	2	Addendum Nos. 1 and 2 and Corrigendum No. 1
		5	Paragraph 2.1
6	and Corrigendum No. 1	6	and Corrigendum No. 1
7	(with the exception of Part 4)	7	(with the exception of Part 4)
8		8	
9	(with the exception of the amendments to Articles 5, 9A, Appendices 1A and 1B, Resolution Spa2 - 3 and Annex D)	9	(with the exception of the amendments to Articles 5, 9A, Appendices 1A and 1B, Resolution Spa2 - 3 and Annex D)
10	(Paragraphs 8, 9)	10	(Paragraphs 8, 9)
12			
13	and Corrigendum No. 1	13	(and Corrigendum No. 1)
14		14	
15	(and Corrigendum No. 1)	15	(and Corrigendum No. 1)
		17	
18	(with the exception of paragraph 4 and the annex)	18	(with the exception of paragraph 4 and the annex)
		22	
23		23	
24		24	
27		27	
29	(Rev.1)	29	(Rev.1)
30	(Rev.1)	30	(Rev.1)
31		31	
32		32	
34		34	
		35	
		38	
		39	
40			
42		42	

F. KRÁLIK
Chairman

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/6-E
12 January 1976
Original: english

COMMITTEE 6

NOTE BY THE CHAIRMAN OF COMMITTEE 6

Possible organization of the work of the Committee

Working Group 6A

Terms of reference: Procedures relating to the implementation of the Plan and to the modifications to the Plan (concerning only the Broadcasting-satellite service in relation to the other stations of the same service and to the other services).

Working Group 6B

Terms of reference: Procedures for co-ordination, notification and registration for the Fixed-Satellite Service (in Region 2) and the Terrestrial Services (in relation to the Broadcasting Satellite Service).

Working Group 6C

Terms of reference: to be fixed at a later date depending on the discussions in the Committee.

R.J. BUNDLE
Chairman of Committee 6

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/7-E
13 January 1977
Original : French

COMMITTEE 5

NOTE BY THE CHAIRMAN OF COMMITTEE 5

Possible organization of the work of Committee 5

Working Group 5A

Terms of reference : To establish the principles on which planning should be based for the broadcasting-satellite service in the bands 11.7-12.2 GHz (Region 3) and 11.7-12.5 GHz (Region 1).

To establish an appropriate plan for the broadcasting-satellite service in Regions 1 and 3, taking into account the fact that the band 11.7-12.2 GHz is shared with the fixed-satellite service in Region 2.
To determine the data to be included in the plan.

Working Group 5B

Terms of reference : To establish the principles on which planning should be based for the broadcasting-satellite service in the band 11.7-12.2 GHz (Region 2).

To establish an appropriate plan for the broadcasting-satellite service in Region 2, taking into account the fact that the band is shared with the fixed-satellite service.
To determine the data to be included in the plan.

Working Group 5C

Terms of reference : To consider and seek solutions to the problems of compatibility between Regions 1 and 3, on the one hand, and Region 2 on the other.

A. PETTI
Chairman of Committee 5

ARCHIVES U.I.T. GENÈVE

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/8-F/E/S
14 janvier 1977
Original : français
anglais
espagnol

GROUPE DE TRAVAIL 6B

WORKING GROUP 6B

GRUPO DE TRABAJO 6B

PROJET D'ATTRIBUTION DES DOCUMENTS AU GROUPE DE TRAVAIL 6B

DRAFT ALLOCATION OF DOCUMENTS TO WORKING GROUP 6B

PROYECTO DE ASIGNACIÓN DE DOCUMENTOS AL GRUPO DE TRABAJO 6B

Documents N^{os}

5

7

9

11 + Corr. N° 1

14

15 + Corr. N° 1

27

29

33

37

42

49

F.S. URBANY
Président du Groupe de Travail 6B

ARCHIVES U.I.T. GENÈVE

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/9-F/E/S
17 janvier 1977
Original : français
anglais
espagnol

GROUPE DE TRAVAIL 6A

WORKING GROUP 6A

GRUPO DE TRABAJO 6A

PROJET D'ATTRIBUTION DES DOCUMENTS AU GROUPE DE TRAVAIL 6A

DRAFT ALLOCATION OF DOCUMENTS TO WORKING GROUP 6A

PROYECTO DE ASIGNACIÓN DE DOCUMENTOS AL GRUPO DE TRABAJO 6A

Documents N^{os}

5

7

9

11 + corr. N° 1

12

14

18

27

29

33

37

42

44

49

65

A. D'ARCEY
Président du Groupe de Travail 6A

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/10-E
17 January 1977
Original : english

WORKING GROUP 6A

METHOD OF APPROACH TO THE WORK OF WORKING GROUP 6A

The terms of reference for Working Group 6A are:

"- to consider and to take action as necessary on the procedures relating to the implementation of the Plan (or plans) and to subsequent modifications (concerning only the Broadcasting-Satellite Service in relation to the other stations of the same service and to the other services)."

At the commencement of the work of Working Group 6A, it is not clear to what end or in what format the results of the work of the Group should be.

The basic alternatives for which procedures relating to the Broadcasting-Satellite Service will be required are:

i) For an evolutionary approach, or

ii) For an a priori plan (in whatever form).

The format of the final document is also not known at this stage and is the work of Working Group 6C.

It is considered that Working Group 6A should be in a position to provide procedures governing the use of the Broadcasting-Satellite Service in the 12 GHz band whatever decisions are reached in other areas of the Conference. It is therefore proposed to form two sets of draft procedures, the first assuming an a priori approach with the second assuming an evolutionary approach. It is proposed that each provision be identified for later use, modification, addition or suppression in providing procedures, taking into consideration the outputs of Committees 4 and 5 and Working Group 6C. To this end it is proposed to form two sub-working groups 6A1 and 6A2 with the following tasks:

6A1. Provide a set of procedures covering the co-ordination, notification and registration of Broadcasting-Satellite stations appearing in an a priori plan.

6A2. Provide a set of procedures covering the co-ordination, notification and registration of Broadcasting-Satellite stations to which an a priori plan is not applicable.

It is considered that completion of these tasks would enable Working Group 6A to quickly select the appropriate procedures governing the use of the bands 11.7 - 12.5 GHz by the Broadcasting Satellite Service and by the other services to which these bands are allocated, in accordance with the decision of the Conference.

ARCHIVES U.I.T. GENÈVE

A third sub-working group will be formed at the appropriate time to provide for subsequent modifications. Its task would be:

6A3. To provide a set of procedures to allow subsequent modifications to any a priori plan.

This method of approach may be modified if circumstances warrant such action.

A. D'ARCEY
Chairman of the Working Group 6A

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/11-E
17 January 1977
Original : French

COMMITTEE 5

Note by the Chairman of Committee 4

CALCULATIONS OF ELEVATION ANGLE

In the course of the planning of satellite broadcasting, it may be necessary, on orographic or other grounds, to determine the position of the satellite on the geostationary orbit in such a way that the satellite is visible at an elevation angle ε greater than a certain value from a coverage area or from a part of this area.

As is known, the geographical coordinates $\Delta\lambda$ (relative geographical length, taking the sub-satellite point as reference) and ϕ (the geographical latitude) and the elevation angle ε for a given point (for the geostationary satellite) are linked by the following relations :

$$\cos\psi = \cos\Delta\lambda \cos\varphi \qquad (1)$$

$$tg\,\varepsilon = (\cos\psi - 0{,}15127)/\sin\psi \qquad (2)$$

$$\psi = 2\,\mathrm{arc\,tg}\left[0{,}8686\left(\sqrt{0{,}977 + tg^2\varepsilon} - tg\,\varepsilon\right)\right] \qquad (3)$$

For a given ε, it is possible from (3) and (1), for a point defined by ϕ, to find the $\Delta\lambda$, namely the maximum relative length or the relative position on the geostationary orbit which enables the satellite to be just seen at angle ε. Using $\Delta\lambda$ and λ, we can find the exact position of the satellite λ_s on the orbit.

For rapid calculation, and for elevation angles of 10°, 15° and 20°, curves have been plotted (see the annex to this document) for determining the limit position, i.e., the extreme position of the satellite for any point. It is sufficient to insert on the graph paper (ordinates : geographical width, 1° = 2 mm; abscissae : geographical length, 1° = 2 mm) the geographical coordinates of the point in question and place on this point the curves for ε. The part $\Delta\lambda$ on the axis of the abscissae gives the relative length for the sub-satellite point, i.e. the position of satellite (Figure 1). The absolute position of the satellite is given by λ_s, i.e. the difference between $\Delta\lambda$ and λ.

For a value of ε other than 10°, 15° and 20°, we can find ψ on the curve in Figure 2 from (1) :

$$\cos\Delta\lambda = \cos\psi/\cos\varphi$$

and

$$\Delta\lambda = \mathrm{arc\,cos}\,\frac{\cos\psi}{\cos\varphi}$$

ARCHIVES U.I.T. GENÈVE

Example : The point for which an elevation angle of at least 24° must be ensured is found at $\phi = 42°$. The maximum permitted $\Delta\lambda$ is sought.

Using Figure 2, for $\varepsilon = 24°$, $\psi = 58.2°$, the satellite position is given by :

$$\cos\Delta\lambda = \cos 58{,}2° / \cos 42°$$
$$\Delta\lambda = 44{,}84°$$
$$\lambda_s = \Delta\lambda - \lambda$$

The λ represents the geographical length of the point in question.

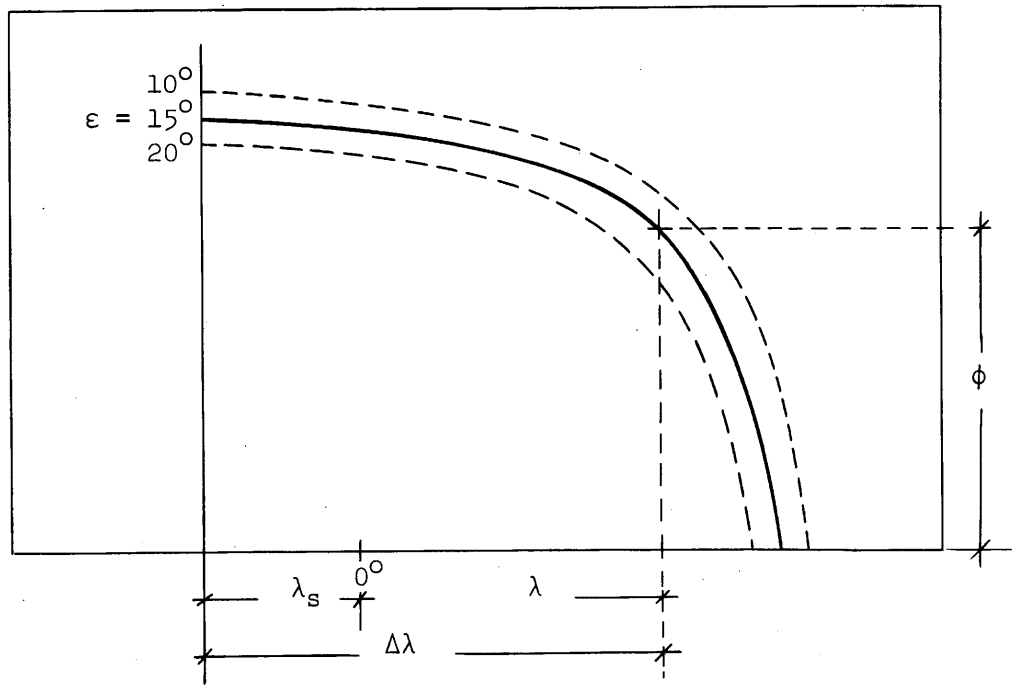


Figure 1

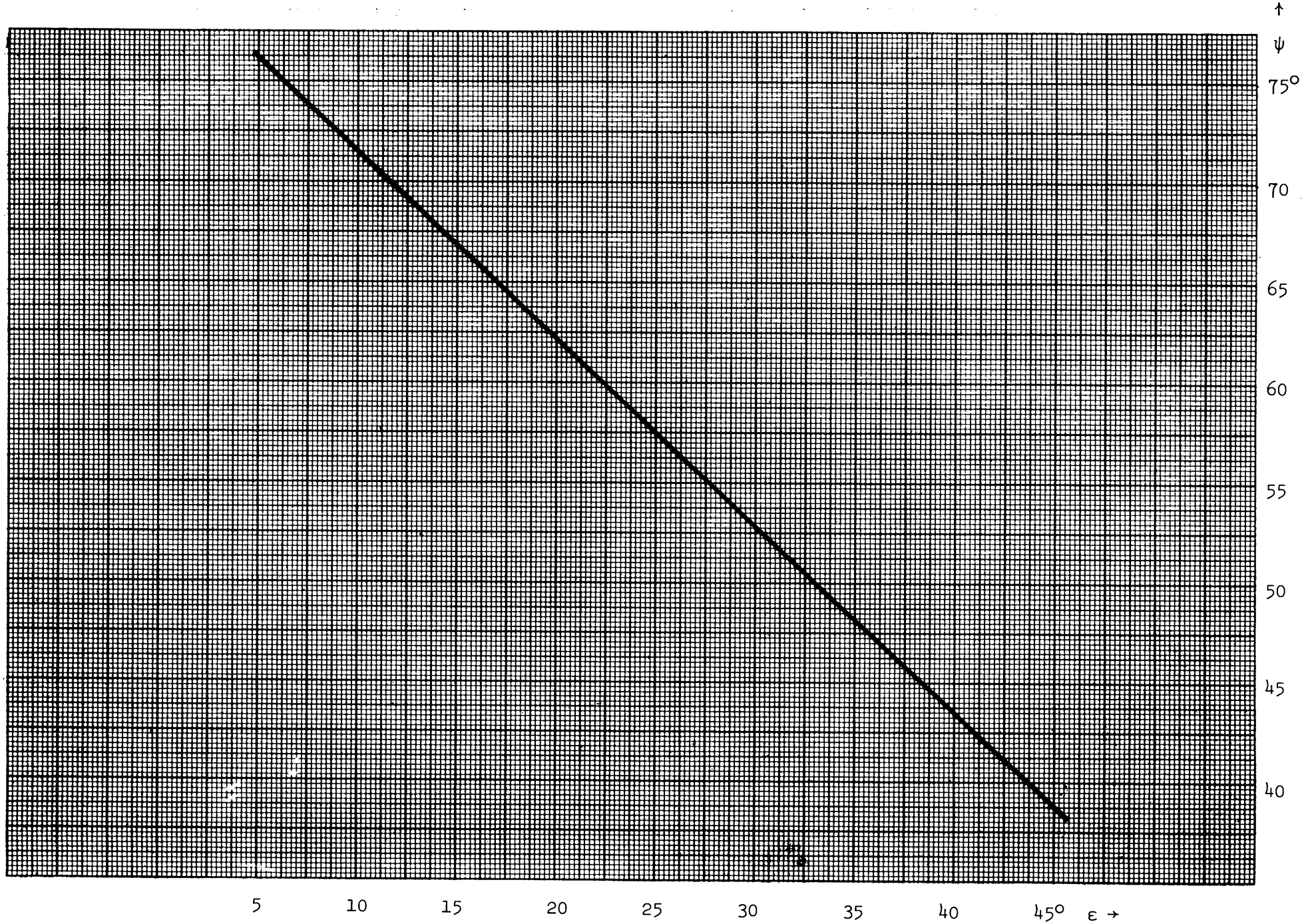


Figure 2

Due to technical restrictions, this page has not been included
in the scanned version of this document.

****

En raison de contraintes techniques, cette page n'est pas incluse
dans la version scannée de ce document.

****

Debido a restricciones de técnicas, esta página no se ha incluido
en la versión escaneada de este documento.

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

PAGE INTENTIONALLY LEFT BLANK

Due to technical restrictions, this page has not been included
in the scanned version of this document.

****

En raison de contraintes techniques, cette page n'est pas incluse
dans la version scannée de ce document.

****

Debido a restricciones de técnicas, esta página no se ha incluido
en la versión escaneada de este documento.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/12-E
17 January 1977
Original : English

WORKING GROUP 4A

DIFFERENCE BETWEEN THE EDGE OF COVERAGE AREA
e.i.r.p. AND THAT ON THE BEAM AXIS

For the purpose of planning, the difference between the edge of coverage area e.i.r.p. and that on the beam axis should be taken as 3 dB.

/ Note : The definition of coverage area has not yet been finalized and the above statement may need qualification, especially as applied to small service areas, depending on the outcome of the discussions on definitions. /

ARCHIVES U.I.T. GENÈVE

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document No. DT/13-E
18 January 1976
Original : English

WORKING GROUP 4B-3

OUT-OF-BAND SPURIOUS EMISSIONS FROM BROADCASTING SATELLITES - PLANNING CONSIDERATIONS

1. Types of services to be protected

Assuming broadcasting satellites and fixed service satellites can be co-located, the services requiring to be protected in adjacent frequency bands to the 11.7 to 12.5 GHz band for Region 1 and 11.7 to 12.2 GHz band for Regions 2 and 3, and the suggested extent of protection considered necessary as defined by the power flux-densities at the Earth's surface are set out in Table 1 :

TABLE 1

Type of service	Frequency	p.f.d.
Fixed-Satellite Service (general)	11.7 GHz	-200 dBW/m^2/4 kHz
Fixed-Satellite Service (maritime)	11.7 GHz	-195 dBW/m^2/4 kHz
Fixed and Mobile Services	11.7 GHz 12.2 GHz	-170 dBW/m^2/4 kHz
Fixed-Satellite Service (general)	12.5 GHz	-171 dBW/m^2/4 kHz

In the Annex to this document the various types of services are analyzed and a proposal is made to split the gap between the power flux-density produced at the channel edge by a broadcasting satellite of -147 dBW/m^2/4 kHz to the required protection value of -195 dBW/m^2/4 kHz on a 2:1 ratio basis (in dB) and have each service take care of its share about 16 dB above -195 dBW/m^2/4 kHz for the Fixed-Satellite Service and about 32 dB below -147 dBW/m^2/4 kHz for the Broadcasting-Satellite Service. The value obtained by this split is -179 dBW/m^2/4 kHz. In practice Fixed-Satellite Services of 10 MHz bandwidth and more have been shown to be capable of accepting a slightly greater burden and a value of -177 dBW/m^2/4 kHz is proposed.

2. Feasibility of achieving the necessary protection

Examination of two of the possible methods of achieving the necessary protection, (-177 dBW/m^2/4 kHz at 11.7 GHz and -171 dBW/m^2/4 kHz at 12.5 GHz) :

a) by filtering at the broadcasting satellite output, and

b) by choice of a suitable guard-band at the edges of the band for planning purposes at this Conference in relation to an "a priori" planning approach.

It would appear that the required protection can only be achieved by means of these two methods.

Achievement of protection by orbital separation seems to be impracticable since the fixed satellite orbit positions would need to be coordinated with the broadcasting-satellite orbit positions registered as requirements in an "a priori" plan and also with broadcasting-satellite orbit positions required progressively in "evolutionary" approach to planning. Such coordination would necessarily be between services in different allocations and therefore is not considered further at this stage.

Referring to the Joint Working Party Report CCIR draft No. AC/10-11, Figure 2, curve A (envelope for 100 percent colour-bar baseband signal, modulator AC coupled) indicates that to achieve a power flux-density of -177 dBW/m^2/4 kHz at the lower band edge a broadcasting satellite having an assumed e.i.r.p. which corresponds to a power flux-density of -94 dBW/m^2 at the centre of the beam for an unmodulated carrier would need to be separated from the 11.7 GHz band edge by a guard-band of approximately 15.5 MHz and from the upper band edge 12.2 GHz (12.5 GHz in Region 1) by approximately 13.0 MHz to achieve a power flux-density of -171 dBW/m^2/4 kHz. Adoption of -171 dBW/m^2/4 kHz at 12.2 GHz adequately protects both the Fixed and Mobile Services and if band extensions were considered in 1979 would protect also the Fixed-Satellite Service.

The Document No. 41 from Norway which provides additional information on this aspect derives recommended guard-bands of 15 MHz for the lower band edge and 12 MHz for the upper band edge.

These values of guard-bands are based on the use of filters in the broadcasting-satellite transponder output enabling a channel edge decay rate (role off) of 2 dB/MHz.

If improved filters could be postulated which enabled a channel edge decay rate (role off) of 3 dB/MHz, then the guard-bands could be reduced to 11 MHz for the lower band edge and 9 MHz for the upper band edge.

3. Guard-bands and their effect on channel separation

Table 2 below defines the channel separations for the three cases :

a) nominal (no filtering)

b) filter for 2 dB/MHz channel edge decay rate

c) " " 3 dB/MHz " " " "

Bandwidths	No. of channels	Inter-channel spacing		
		a)	b)	c)
500 MHz	24	20 MHz	19.4 MHz	19.7 MHz
800 MHz	40	19.8 MHz	19.1 MHz	19.3 MHz

H.F. HAAGENSEN
Chairman, Sub-Group 4B-3

Annex : 1

A N N E X

DERIVATION OF ALLOCATION-EDGE POWER FLUX-DENSITY LIMITS

Between the protection requirements for the various services operating in bands adjacent to the 11.7 - 12.5 (12.2) GHz band allocated to the Broadcasting-Satellite Service (see Table below) and the presently best estimate for the power flux-density generated at the edge of a satellite-broadcasting channel, i.e., - 147 dBW/m^2/4 kHz at 13.5 MHz from channel centre there exists a substantial gap which needs to be bridged by suitable concessions on the part of the services involved.

Protective allocation edge power flux-density for various services

General FSS	11.7 GHz	- 200 dBW/m^2/4 kHz
FSS maritime	11.7 GHz	- 195 dBW/m^2/4 kHz
Fixed/mobile	11.7 GHz 12.2 GHz	) - 170 dBW/m^2/4 kHz
General FSS	12.5 GHz	- 171 dBW/m^2/4 kHz

The values in the Table above reflect collocation of the space stations in the Fixed-Satellite Service with broadcasting satellites. This is a requirement dictated by the location constraints of the fixed satellites in connection with their service offerings and their intra-allocation sharing problems. However, the most stringent protective value of - 200 dBW/m^2/4 kHz could, in practice, be circumvented by avoiding the assignment of very sensitive carriers close to band edge below 11.7 GHz.

This reduces the gap to 195 - 147 = 48 dB which it is proposed to bridge by splitting it on a 2:1 ratio basis (in dB) and have each service take care of its share : about 16 dB above - 195 dBW/m^2/4 kHz for the Fixed-Satellite Service, and about 32 dB below - 147 dBW/m^2/4 kHz for the Broadcasting-Satellite Service. The value obtained by this split is - 179 dBW/m^2/4 kHz.

In practice, the Fixed-Satellite Service can take somewhat more than its share of the burden; an effective allocation interface value of - 177 dBW/m^2/4 kHz has been shown to protect Fixed-Satellite Service transmissions of about 10 MHz and greater bandwidth under the assumption of collocation of fixed satellites with broadcasting satellites. For the special case of a fixed satellite providing maritime-satellite service, it is believed feasible to achieve the necessary remaining protection by a modest orbit separation (~ 1°) since for such a service orbit location constraints would appear to be less stringent.

The value of - 177 dBW/m^2/4 kHz would apply to the allocation interface at 11.7 GHz.

At 12.5 and 12.2 GHz both the Fixed-Satellite Service and the fixed and mobile services require values of - 171 and - 170 dBW/m^2/4 kHz, respectively. It is proposed to adopt the value of - 171 dBW/m^2/4 kHz for both allocation interfaces; i.e., at both 12.2 GHz and 12.5 GHz.

It is quite essential to postulate satellite collocation for the general Fixed-Satellite Service. However, with the presently existing allocations, broadcasting satellites may use the same up-path frequencies as the Fixed-Satellite Service using adjacent down-path bands. Should this situation persist after the 1979 World Administrative Conference, and should broadcasting satellites indeed use the same up-path bands as the general Fixed-Satellite Services in the adjacent bands, up-path interference considerations are likely to prevent satellite collocation, and somewhat higher power flux-densities than those assumed above, but not to exceed - 171 dBW/m^2/4 kHz, may be considered acceptable.

For planning purposes at this Conference, however, and subject to the pertinent provisions of the 1979 WARC, it is recommended to adopt the two allocation interface constraints derived above, viz. :

at 11.7 GHz - 177 dBW/m^2/4 kHz
at 12.2 GHz - 171 dBW/m^2/4 kHz
at 12.5 GHz - 171 dBW/m^2/4 kHz

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/14-E
18 January 1977
Original : French

SUB-WORKING GROUP 6B-2

PRINCIPLES WHICH MAY BE APPLIED IN THE COORDINATION, NOTIFICATION AND REGISTRATION PROCEDURES FOR STATIONS IN THE TERRESTRIAL SERVICES

1. Terrestrial stations have to be coordinated in relation to receiving stations in the Broadcasting-Satellite Service when they are removed from the service area of the space station by a distance equal to or less than that determined from the criteria contained in Appendix 1 to this document.

2. Appendix 2 to this document can be used to deduce the distance on the basis of a limit value of the power flux-density (Document No. 15).

3. The terrestrial stations are governed by sub-sections IIA or IIB of Article 9, as appropriate.

4. An Appendix based on the criteria contained in the other parts of Document No. 15 must be used by an Administration seeking coordination for the purpose of making a detailed calculation, which will be sent at the same time as the request for coordination.

K. OLMS
Chairman, Sub-Working Group 6B-2

Appendices : 2

ARCHIVES U.I.T. GENÈVE

A P P E N D I X 1

The minimum separation distance d in km is calculated from the limit value of the power flux-density as follows :

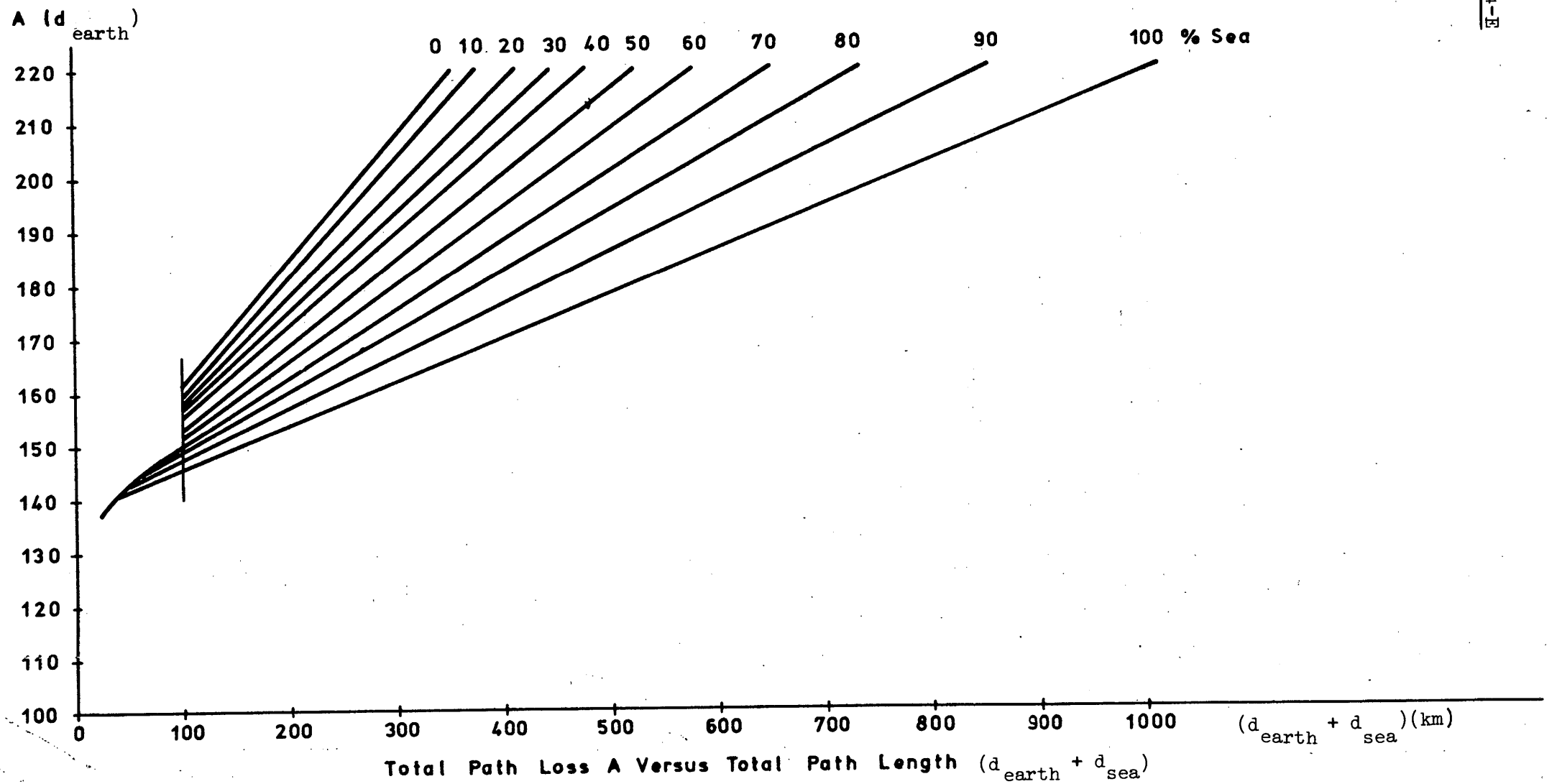
The loss A required for the limit value of power flux-density F_p (to be established by Committee 4) to be observed is considered to be

$$A = E - F_p + 43 \text{ dB}$$

The figure below is used to determine the minimum separation distance d.

A P P E N D I X 2

Document No. 15 in the form adopted by Committee 4.



Total Path Loss A Versus Total Path Length (d_{earth} + d_{sea})

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/15-E
18 January 1977
Original : English

COMMITTEE 6

At the request of the Delegation of the United States of America, this Document is submitted to Committee 6

POSSIBLE FORM OF USA PROPOSALS (REF. DOCUMENT No. 7) AS ENVISAGED IN A FORMAT APART FROM THE RADIO REGULATIONS

In view of the recent decisions reached in Committee 6 regarding the recommended form of the Final Acts of the W.A.R.C.-B.S., the U.S. Delegation has attempted to re-work its proposals into a form which might stand apart from the Radio Regulations in order to facilitate discussions in various Working Groups. Document No. 7 still represents the proposals of the USA, and the document attached hereto is intended solely to facilitate Working Group activities.

Articles 4, 5 and 6 of the attached document represent the basic provisions of Sections A, B, and C of Resolution Spa2 - 3 and where the USA proposals have added substance to these provisions the notation (new) precedes the paragraph. Where deletions are proposed, the text is dashed out.

R.J. BUNDLE
Chairman of Committee 6

Annex : 1

ARCHIVES U.I.T. GENÈVE

A N N E X

RELATING TO THE BRINGING INTO USE OF SPACE STATIONS IN THE BROADCASTING SATELLITE SERVICE

PREAMBLE

Article 1

DEFINITIONS

1. (A need will arise for a number of terms to be defined and these will be given in this Article.)

Article 2

FREQUENCY BANDS

2. The provisions of these Final Acts apply to the frequency bands between 11.7 and 12.5 GHz in Region 1 and between 11.7 and 12.2 GHz in Regions 2 and 3.

Article 3

EXECUTION OF THE FINAL ACTS

3.1 The Contracting Members shall establish their stations operating in the frequency bands referred to in the Final Acts within the technical standards and operational characteristics specified in Annex I of the Final Acts, as well as the relevant provisions of the Radio Regulations.

3.2 The Contracting Members shall not put into service assignments, change the characteristics of assignments, nor establish new stations in the Broadcasting Satellite Service except under and in accordance with the provisions of Articles 4, 5 and 6 of the Final Acts.

Article 4

~~Section A:~~ Co-ordination Procedure between Space Stations in the Broadcasting-Satellite Service and Terrestrial Stations

4.1 **Before an administration notifies to the I.F.R.B. or brings into use any frequency assignment to a space station in the broadcasting-satellite service in a frequency band where this frequency band is allocated, with**

equal rights, to the broadcasting-satellite service and to a terrestrial radiocommunication service, either in the same Region or sub-Region or in different Regions or sub-Regions, it shall co-ordinate the use of this assignment with any other administration whose terrestrial radiocommunication services may be affected. For this purpose, it shall inform the Board of all the technical characteristics of the station, as listed in the relevant sections of Appendix 1A to the Radio Regulations, which are necessary to assess the risk of interference to a terrestrial radiocommunication service[1].

4.2 The Board shall publish this information in a special section of its weekly circular and shall also, when the weekly circular contains such information, so advise all administrations by circular telegram.

4.3 Any administration which considers that its terrestrial radiocommunication services may be affected shall forward its comments to the administration seeking co-ordination and, in any case, to the Board. These comments must be forwarded within one hundred and twenty days from the date of the relevant I.F.R.B. weekly circular. It shall be deemed that any administration which has not forwarded comments within that period considers that its terrestrial radiocommunication services are unlikely to be affected.

4.4 Any administration which has forwarded comments on the projected station shall either give its agreement or, if this is not possible, send to the administration seeking co-ordination all the data on which its comments are based as well as any such suggestions as it may be able to offer with a view to a satisfactory solution of the problem.

4.5 The administration which plans to bring into use a space station in the broadcasting-satellite service as well as any other administration which believes that its terrestrial radiocommunication services are likely to be affected by the station in question may request the assistance of the Board at any time during the co-ordination procedure.

4.6 If the assistance of the Board has been sought and there is a continuing disagreement between the administration seeking co-ordination and the administration which has forwarded its comments, the administration seeking co-ordination may, after a total period of one hundred and eighty days, from the date of the relevant I.F.R B. weekly circular, send to the Board its notice concerning the frequency assignment in question.

---

[1] The technical data to be used in effecting co-ordination should be based on the most recent C.C.I.R. Recommendations as accepted by the administrations concerned under the terms of Resolution No. Spa2-6. In the absence of relevant C.C.I.R. Recommendations, the technical data to be used in effecting co-ordination shall be determined by agreement among the administrations concerned.

Article 5

~~Section B:~~ Co-ordination Procedure between Space Stations in the Broadcasting-Satellite Service and Space Systems of other Administrations

5.1 **An administration intending to bring into use a space station in the broadcasting-satellite service shall, for the purpose of co-ordination with space systems of other administrations, apply the following provisions of Article 9A of the Radio Regulations:**

5.2 **Nos. 639AA to 639AI inclusive.**

5.3 **No. 639AJ [1].**

5.4 No co-ordination under paragraph 5.3 is required when an administration proposes to change the characteristics of an existing assignment in such a way as not to increase the probability of harmful interference to stations in the space radiocommunication service of other administrations.

5.5 **Nos. 639AL, 639AM, 639AO, 639AS** *a*), *c*), *e*), *f*), **639AT, 639AU, 639AV, 639AW, 639AX, 639AY, 639AZ.**

(new) 5.6 Whenever an administration intends to put into use an assignment to a fixed-satellite station, it will apply the provisions of Article 9A of the Radio Regulations. The IFRB, in addition to applying the procedures in that Article, shall examine the conformity of the assignment with any sharing criteria set forth in Annex __ of the Final Acts.

(new) 5.7 When planning space stations on geostationary satellites in the 11.7 - 12.2 GHz band (11.7 - 12.5 GHz in Region 1), all available techniques shall be used for achieving efficient spectrum and orbit utilization with particular attention being given to the methods described in applicable CCIR documents. For illustrative purposes only, a number of methods are described in Annex II.

---

[1] The technical data to be used in effecting co-ordination should be based on the most recent C.C.I.R. Recommendations as accepted by the administrations concerned under the terms of Resolution No. Spa2-6. In the absence of relevant C.C.I.R. Recommendations, the technical data to be used in effecting co-ordination shall be determined by agreement among the administrations concerned.

Article 6

~~Section 6:~~ NOTIFICATION, EXAMINATION AND RECORDING IN THE MASTER REGISTER OF ASSIGNMENTS TO SPACE STATIONS IN THE BROADCASTING-SATELLITE SERVICE

6.1 Any frequency assignment[1] to a space station in the broadcasting-satellite service shall be notified to the Board. The notifying administration shall apply for this purpose the provisions of Nos. **639BE**, **639BF** and **639BG** of the Radio Regulations.

6.2 Notices made under paragraph 6.1 shall initially be treated in accordance with No. **639BH** of the Radio Regulations.

6.3 The Board shall examine each notice with respect to:

6.4 *a)* its conformity with the Convention, the Table of Frequency Allocations and the other provisions of the Radio Regulations (with the exception of those relating to the co-ordination procedures and to the probability of harmful interference);

6.5 *b)* its conformity, where applicable, with the provisions of paragraph 4.1 of Article 4, relating to co-ordination of the use of the frequency assignment with the other administrations concerned;

6.6 *c)* its conformity, where applicable, with the provisions of paragraph 5.3 of Article 5, relating to co-ordination of the use of the frequency assignment with the other administrations concerned;

6.7 *d)* where appropriate, the probability of harmful interference to the service rendered by a station in a space or terrestrial radiocommunication service for which a frequency assignment has already been recorded in the Master Register in conformity with the provisions of No. **501** or **639BM** of the Radio Regulations as appropriate, if that assignment has not, in fact, caused harmful interference to the service rendered by a station for which an assignment has been previously recorded in the Master Register and which itself is in conformity with No. **501** or **639BM** as appropriate.

---

[1] The expression frequency assignment, wherever it appears in these Final Acts, shall be understood to refer to either a new frequency assignment or to a change in an assignment already recorded in the Master International Frequency Register (hereinafter called Master Register).

6.8 Depending upon the findings of the Board subsequent to the examination prescribed in paragraphs 6.4, 6.5, 6.6 and 6.7 further action shall be as follows :

6.9 Where the Board reaches an unfavourable finding with respect to paragraph 6.4 the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

6.10 Where the Board reaches a favourable finding with respect to paragraph 6.4, or where it reaches the same finding after resubmission of the notice, it shall examine the notice with respect to the provisions of paragraphs 6.5 and 6.6.

6.11 Where the Board finds that the co-ordination procedures mentioned in paragraphs 6.5 and 6.6 have been successfully completed with all administrations whose services may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d of the Master Register ~~with an entry in the Remarks column indicating that such recording does not prejudge in any way the decisions to be included in the agreements and associated plans referred to in Resolution No. Spa2-2.~~

6.12 Where the Board finds that the co-ordination procedures mentioned in paragraph 6.5 or 6.6 have not, as appropriate, been applied or have been unsuccessfully applied, the notice shall be returned immediately by airmail to the notifying administration with the reason for its return and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

6.13 Where the notifying administration resubmits the notice and the Board finds that the co-ordination procedures have been successfully completed with all administrations whose services may be affected, the assignment shall be treated as indicated in paragraph 6.11.

6.14 Where the notifying administration resubmits the notice and states that it has been unsuccessful in endeavouring to effect the co-ordination, the notice shall be examined by the Board with respect to paragraph 6.7.

6.15 Where the Board reaches a favourable finding with respect to paragraph 6.7 the assignment shall be recorded in the Master Register. The appropriate symbol indicating the finding by the Board shall indicate that the co-ordination procedures, as appropriate, referred to in paragraph 4.1 or 5.3 were not successfully completed. The date of receipt by the Board of the notice shall be entered in Column 2d of the Master Register. ~~with the remark mentioned in paragraph 6.4.~~

6.16 Where the Board reaches an unfavourable finding with respect to paragraph 6.7 the notice shall be returned immediately by airmail to the notifying administration with the reasons for the Board's finding and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

6.17 If the administration resubmits the notice unchanged with the insistence that it be reconsidered, but should the Board's unfavourable finding under paragraph 6.7 remain unchanged, the assignment shall be recorded in the Master Register. However, this entry shall be made only if the notifying administration informs the Board that the assignment has been in use for at least one hundred and twenty days without any complaint of harmful interference having been received. The date of receipt by the Board of the original notice shall be entered in Column 2d of the Master Register. ~~with the remark mentioned in paragraph 6.4.~~ An appropriate remark shall be placed in Column 13 to indicate that the assignment is not in conformity with the provisions of paragraphs 6.4, 6.5, 6.6, or 6.7, as appropriate. In the event that the administration concerned receives no complaint of harmful interference concerning the operation of the station in question for a period of one year from the commencement of operation, the Board shall review its finding.

6.18 If harmful interference is actually caused to the reception of any space station in the broadcasting-satellite service whose frequency assignment has been recorded in the Master Register as a result of a favourable finding with respect to paragraphs 6.4, 6.5, 6.6, and 6.7 of these Final Acts as appropriate, by the use of a frequency assignment to a space station which has been subsequently recorded in the Master Register in accordance with the provisions of paragraph 6.17 or of No. 639CP of the Radio Regulations, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

6.19 If harmful interference is actually caused to the reception of any space radiocommunication station using an assignment recorded in the Master Register as a result of a favourable finding with respect to Nos. **639BM**, **639BN**, **639BO**, **639BP**, **639BQ** and **639BR** of the Radio Regulations, as appropriate, by the use of an assignment to a space station in the broadcasting-satellite service which has been subsequently recorded in the Master Register in accordance with the provisions of paragraph 6.17 of this Agreement, the station using the latter assignment must, on receipt of advice thereof, immediately eliminate this harmful interference.

6.20 If harmful interference is actually caused to the reception of any terrestrial station using an assignment recorded in the Master Register as a result of a favourable finding with respect to No. **501** of the Radio Regulations, by the use of an assignment to a space station in the broadcasting-satellite service which has been subsequently recorded in the Master Register in accordance with the provisions of paragraph 6.17, the station using the latter assignment must, on receipt of advice thereof, immediately eliminate this harmful interference.

6.21 If harmful interference to the reception of any station whose assignment is in accordance with paragraph 6.4, is actually caused by the use of a frequency assignment which is not in conformity with paragraph 6.4, or with No. 501, 570AB or 639BM of the Radio Regulations, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

Article 7

SPECIAL ARRANGEMENTS

In addition to the procedures provided for in Articles 4 and 5 of the Final Acts and to facilitate their application with a view to improving efficient orbit/spectrum utilization, Contracting Members may conclude special arrangements in accordance with the pertinent provisions of the Convention, of the Radio Regulations and of these Final Acts.

Article 8

SCOPE OF APPLICATION OF THE FINAL ACTS

8.1 These Final Acts shall bind the Contracting Members in their relations with one another, but does not bind those Members with respect to non-Contracting countries. In the latter case, the applicable provisions of the Convention and the Radio Regulations annexed thereto shall apply.

8.2 If a Contracting Member makes reservations with regard to any provision of this Agreement, other Members shall be free to disregard that provision in their relation with the Member which has made such reservations.

Article 9

APPROVAL OF THE FINAL ACTS

Members shall notify their approval of this Agreement, as promptly as possible to the Secretary-General, who shall at once inform the other Members of the Union.

Article 10

ACCESSION TO THE FINAL ACTS

10.1 Any Member of the Union which has not signed these Final Acts may accede thereto at any time. The Secretary-General shall be notified thereof and he shall inform the other Members of the Union.

10.2 Accession to these Final Acts shall take effect on the date on which the notification of accession is received by the Secretary-General.

Article 11

TERMINATION OF PARTICIPATION

11.1 Any Contracting Member shall have the right at any time to terminate its participation in these Final Acts by a notification sent to the Secretary-General who shall inform the other Members of the Union. However, such termination shall not absolve the Member from compliance with the provisions of the Convention and of the Radio Regulations.

11.2 Such termination of participation shall take effect after a period of one year from the date of receipt, by the Secretary-General, of the said notification.

Article 12

EFFECTIVE DATE OF THE FINAL ACTS

The Agreement shall enter into force on .....

Article 13

DURATION OF THE FINAL ACTS

These Final Acts shall remain in force until revised by a competent Administrative Radio Conference convened in accordance with Article 54 of the Convention.

Annex I

Operational and technical criteria

1. Station-keeping

Space stations on geostationary satellites operating in the bands administered by these Final Acts :

- shall have the capability of maintaining their positions within ± 0.1 degree of the longitude of their nominal position
- shall maintain their position within ± 0.1 degree of the longitude of their nominal position; but
- need not comply with the above as long as the satellite network, to which the space station belongs, does not produce an unacceptable level of interference[1] into other satellite networks whose space stations comply with the above limits

2. Satellite repositioning

In the bands administered by these Final Acts, geostationary space stations shall have a one-time repositioning capability of ± 10 degrees.

3. Space station antenna pointing accuracy

The pointing direction of maximum radiation of the earthward beam of antennae on geostationary satellites operating in bands administered by these Final Acts shall be capable of being maintained within 0.2 degrees relative to the nominal pointing direction. This accuracy shall be maintained only if it is required to avoid unacceptable interference[1] to other systems.

4. Repointing capability of earth station antennae

The direction of maximum gain of any earth station antenna, operating within the bands administered by these Final Acts, shall be capable of being changed to accommodate the satellite repositioning under number 2 above.

5. Retuning of earth station receivers

Each earth station receiving system, operating within the bands administered by these Final Acts, shall have a capability of retuning over the entire operating frequency range of the satellite network.

6. Cessation of emissions

In the frequency bands administered by these Final Acts, space stations in the Broadcasting- and Fixed-Satellite Services shall have the capability to insure immediate cessation of emission if the space station deviates from the designated parameters of operation such that harmful interference[1] is reported to be caused by the subject space station.

---

1) The level of unacceptable interference shall be fixed by agreement between the administrations concerned, using the relevant CCIR Recommendations as a guide.

Annex II

Examples of methods for improving efficient use of spectrum and orbit in the bands addressed in the Final Acts

Numbers 130 and 131 of the Convention stress the importance of the efficient use of spectrum and orbit on geostationary satellites. In this regard, the following methods are described as examples and for purposes of illustration only. The practical applicability, advantages and limitations of these or other methods are discussed in CCIR documents.

a) Such advantages as may be obtainable from polarization discrimination could be used.

b) Transponder channelization may be chosen to take advantage of frequency interleaving.

c) Consideration may be given to planning such that nearby or adjacent satellites serve widely separated areas and not adjacent or overlapping areas.

d) Satellites, with equal susceptibility to and with equal generating potential for interference, could be placed together in the same portion of the geostationary orbit.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/16(Rev.1)-E
19 January 1977
Original : English

WORKING GROUP 4A

RAIN CLIMATIC ZONES

In conformity with the request by the Working Group 4A, the IFRB has prepared a table, included as Annex 1 to this document, which lists the countries (indicated by the symbol designating the country or geographical area taken from Table No. 1 of the Preface to the International Frequency List) together with the corresponding rain climatic zones derived from Figure 17 of Appendix 28 to the Radio Regulations. Two or more rain-climatic zones are shown in Annex 1 for each case where a country, or geographical area, is not covered entirely by one rain-climatic zone.

Delegations are requested to examine Annex 1 with a view to verifying the furnished information and to use the form given as Annex 2 to this document, if appropriate, to communicate to the IFRB the following information :

- if a delegation feels that the rain-climatic zone is shown incorrectly in Annex 1, the delegation concerned should complete Annex 2 and include in it the correct rain-climatic zone; all countries or geographical areas for which the form shown in Annex 2 is not returned to the IFRB after completion will be considered to have the rain-climatic zones as shown in Annex 1;

- where a country or geographical area, is covered by more than one rain-climatic zone, the delegation concerned should, also, indicate in Annex 2 the IFRB serial number which corresponds to the antenna beam intended to provide the service in the country or area.

The completed Annex 2, where one or both of the above considerations apply, should be addressed to the IFRB (Box No. 4000) not later than ...

Annexes : 2

ARCHIVES U.I.T. GENÈVE

A N N E X E 1 - A N N E X 1 - A N E X O 1

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
ADL	-	BHR	5	CPV	-
AFG	5	BIO	-	CRO	-
AFI	5	BLR	2	CTI	1
AFS	1 5	BOL	1 5	CTR	1
AGL	1	BOT	1 5	CUB	1
ALB	4	BRB	1	CVA	4
ALG	4	BRM	1	CYP	-
ALS	2	BRU	1	D	3
AMS	-	BUL	4	DAH (BENIN)	1
AND	3	CAF	5	DDR	3
AOE	5	CAN	2 5	DNK	3
ARG	5	CAR	-	DOM	1
ARS	5	CBG	1	E	4
ASC	-	CHL	5	EGY	5
ASO	1 5	CHN	1 2 5	EQA	1
ATN	1	CHR	-	ETH	1 5
AUS	1 4 5	CKH	-	F	3
AUT	3	CKN	-	FJI	-
AZR	-	CLM	1	FLK	-
B	1	CLN	1	FNL	2
BAH	1	CME	1	G	3
BDI	1	CNR	5	GAB	1
BEL	3	COG	1	GDL	1
BER	1	COM	1	GHA	1
BGD	1			GIB	4
				GIL	-

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
GMB	1	IWA	-	MLT	4
GNE	1	J	2	MNG	5
GNP	1	JAR	-	MOZ	1
GRC	4	JMC	1	MRA	-
GRL	-	JON	-	MRC	4 5
GTM	1	JOR	5	MRL	-
GUB	1	KEN	1	MRN	-
GUF	1	KER	-	MRT	1
GUI	1	KOR	2	MTN	5
GUM	-	KRE	2	MWI	1
HNB	1	KWT	5	MYT	1
HND	1	LAO	1	NCG	1
HNG	4	LBN	5	NCL	3
HOL	3	LBR	1	NGR	1
HTI	1	LBY	5	NHB	3
HVO	1	LIE	3	NIG	1
HWA	-	LSO	1	NIU	-
HWL	-	LUX	3	NOR	3
I	4	MAC	1	NPL	1
ICO	-	MAU	1	NRU	-
IND	1	MCO	3	NZL	3
INP	1	MCS	-	OCE	-
INS	1	MDG	1	OMA	5
IOB	1	MDR	5	PAK	5
IRL	3	MDW	-	PAQ	5
IRN	5	MEX	1 5	PHL	1
IRQ	5	MLA	1	PHX	-
ISL	-	MLD	1	PLM	-
ISR	5	MLI	1 5	PNG	1

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
PNR	1	SRL	1	VIR	-
PNZ	1	STP	1	VTN	1
POL	3	SUI	3	WAK	-
POR	4	SUR	1	WAL	-
PRG	1	SWN	-	YEM	5
PRU	1 5	SWZ	1	YMS	5
		SYR	5	YUG	4
PTC	-	TCD	5	ZAI	1
PTR	1	TCH	3	ZAN	1
QAT	5	TGK	1	ZMB	1
REU	1	TGO	1		
RHS	1	THA	1		
ROD	-	TKL	-		
ROU	3	TMP	1		
RRW	1	TON	-		
RYU	2	TRC	-		
S	2 3	TRD	1		
		TUN	4		
SDN	5	TUR	5		
SEN	1 5	TUV	-		
SEY	-	UAE	5		
SHN	-	UGA	1		
SLM	-	UKR	2		
SLV	1	URG	1		
SMA	-	URS	2 5		
SMO	-	USA	1 2 3 4 5		
SMR	4				
SNG	1				
SOM	5				
SPM	2				
		VEN	1		

A N N E X 2

Administration _____

Delegate _____ Box No. _____.

Country symbol	Rain-climatic zone	IFRB serial number

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/16-E
18 January 1977
Original : English

WORKING GROUP 4A

RAIN CLIMATIC ZONES

In conformity with the request by the Working Group 4A, the IFRB has prepared a table, included as Annex 1 to this document, which lists the countries (indicated by the symbol designating the country or geographical area taken from Table No. 1 of the Preface to the International Frequency List) together with the corresponding rain climatic zones derived from Figure 17 of Appendix 28 to the Radio Regulations. Two or more rain-climatic zones are shown in Annex 1 for each case where a country, or geographical area, is not covered entirely by one rain-climatic zone.

Delegations are requested to examine Annex 1 with a view to verifying the furnished information and to use the form given as Annex 2 to this document, if appropriate, to communicate to the IFRB the following information :

- if a delegation feels that the rain-climatic zone is shown incorrectly in Annex 1, the delegation concerned should complete Annex 2 and include in it the correct rain-climatic zone; all countries or geographical areas for which the form shown in Annex 2 is not returned to the IFRB after completion will be considered to have the rain-climatic zones as shown in Annex 1;

- where a country or geographical area, is covered by more than one rain-climatic zone, the delegation concerned should, also, indicate in Annex 2 the IFRB serial number which corresponds to the antenna beam intended to provide the service in the country or area.

The completed Annex 2, where one or both of the above considerations apply, should be addressed to the IFRB (Box No. 4000) not later than ...

Annexes : 2

ARCHIVES U.I.T. GENÈVE

A N N E X E 1 - A N N E X 1 - A N E X O 1

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
ADL (F)	-	BHR	5	CPV	-
AFG	5	BIO (G)	-	CRO (F)	-
AFI (F)	5	BLR	2	CTI	1
AFS	1 5	BOL	1 5	CTR	1
AGL	1	BOT	1 5	CUB	1
ALB	4	BRB	1	CVA	4
ALG	4	BRM	1	CYP	-
ALS	2	BRU	1	D	3
AMS	-	BUL	4	DAH (BENIN)	1
AND	3	CAF	5	DDR	3
AOE (E)	5	CAN	2 5	DNK	3
ARG	5	CAR	-	DOM	1
ARS	5	CBG	1	E	4
ASC	-	CHL	5	EGY	5
ASO	1 5	CHN	1 2 5	EQA	1
ATN (HOL)	1	CHR	-	ETH	1 5
AUS	1 4 5	CKH	-	F	3
AUT	3	CKN (NZL)	-	FJI (G)	-
AZR (POR)	-	CLM	1	FLK (G)	-
B	1	CLN	1	FNL	2
BAH	1	CME	1	G	3
BDI	1	CNR (E)	5	GAB	1
BEL	3	COG	1	GDL (F)	1
BER	1	COM	1	GHA	1
BGD	1			GIB (G)	4
				GIL (G)	-

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
GMB	1	IWA	-	MLT	4
GNE	1	J	2	MNG	5
GNP	1	JAR	-	MOZ	1
GRC	4	JMC	1	MRA	-
GRL	-	JON	-	MRC	4
GTM	1	JOR	5		5
GUB (G)	1	KEN	1	MRL	-
GUF (F)	1	KER	-	MRN	-
GUI	1	KOR	2	MRT	1
GUM	-	KRE	2	MTN	5
HKG	1	KWT	5	MWI	1
HNB (G)	1	LAO	1	MYT	1
HND	1	LBN	5	NCG	1
HNG	4	LBR	1	NIU	-
HOL	3	LBY	5	NOR	3
HTI	1	LIE	3	NPL	1
HVO	1	LSO	1	NRU	-
HWA (USA)	-	LUX	3	NZL	3
HWL	-	MAC	1	OCE	-
I	4	MAU	1	OMA	5
ICO	-	MCO	3	PAK	5
IND	1	MCS	-	PAQ(CHL)	5
INP	1	MDG	1	PHL	1
INS	1	MDR	5	PHX(USA)	-
IOB	1	MDW	-	PLM(USA)	-
IRL	3	MEX	1	PNG	1
IRN	5		5	PNR	1
IRQ	5	MLA	1	PNZ	1
ISL	-	MLD	1	POL	3
ISR	5	MLI	1 5	POR	4

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
PRG	1	SWN	-	YEM	5
PRU	1 5	SWZ	1	YUG	4
PTC	-	SYR	5	ZAI	1
PTR	1	TCD	5	ZAN	1
QAT	5	TCH	3	ZMB	1
REU (F)	1	TGK	1		
RHS	1	TGO	1		
ROD	-	THA	1		
ROU	3	TKL	-		
RRW	1	TMP	1		
RYU	2	TON	-		
S	2 3	TRC (AFS)	-		
SDN	5	TRD	1		
SEN	1 5	TUN	4		
SEY	-	TUR	5		
SHN (G)	-	TUV	-		
SLM	-	UAE	5		
SLV	1	UGA	1		
SMA (USA)	-	UKR	2		
SMO	-	URG	1		
SMR	4	URS	2 5		
SNG	1	USA	1 2 3 4		
SOM	5		5		
SPM	2	VEN	1		
SRL	1	VIR	-		
STP	1	VTN	1		
SUI	3	WAK (USA)	-		
SUR	1	WAL	-		

A N N E X 2

Administration _____

Delegate _____ Box No. _____

Country symbol	Rain-climatic zone	IFRB serial number

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/17-E
19 January 1977
Original: English
French

WORKING GROUP 6A

ORGANIZATION OF THE WORK OF THE WORKING GROUP

Sub-Working Group 6A-1

Chairman : Mr. A.O. Carter, United Kingdom (Box No. 80)
Secretary: Mr. W. García-Ríos (Box No. 3055)

Terms of reference:

- to provide a set of procedures covering the co-ordination, notification and registration of Broadcasting-Satellite stations appearing in an a priori Plan (or Plans) and procedures to allow subsequent modifications to such Plan (or Plans).

Sub-Working Group 6A-2

Chairman : Mr. E.R. Jacobs, United States of America (Box No. 1080)
Secretary: Mr. R. Pluss (Box No. 3072)

Terms of reference:

- to provide a set of procedures covering the co-ordination, notification and registration of Broadcasting-Satellite stations to which an a priori plan is not applicable, having regard to the production of the work of Sub-Working Group 6A-1.

A. D'ARCEY
Chairman of Working Group 6A

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/18-E
19 January 1977
Original : English

WORKING GROUP 5A

TERMS OF REFERENCE OF SUB-WORKING GROUPS
OF WORKING GROUP 5A SO FAR ESTABLISHED

Sub-Working Group 5A1 (Planning Support Group)

To examine (from the technical viewpoint) each service area requirement presented by Administrations to the Conference and derive from it the polygon meeting those service area requirements. To provide as necessary (to be co-ordinated with the IFRB) a checking point for the accuracy of data at all stages in the planning process and other such important planning support tasks.

Sub-Working Group 5A2

To construct a Region 1 and 3 frequency assignment/orbit position plan based on meeting fully the requirements which Administrations have presented to the Conference, taking into account any changes fully approved by the consultation process adopted by the second meeting of Working Group 5A. In respect of orbit position requirements, however, the instructions given in Document DL/15 as amended at the third meeting of the Working Group, should be followed.

Sub-Working Group 5A6

To look into the theoretical possibilities raised in the New Zealand Documents 13 and 45. To derive from this investigation a general list of planning tools that could provide possible solutions to planning problems that may be encountered in the establishment of a plan for the Broadcasting-Satellite Service for any planning method.

Working Group 5A3-5A5

Still to be defined by the Working Group.

S.R. TEMPLE
Chairman of Working Group 5A

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document N° DT/19-E
21 January 1977
Original: English

WORKING GROUP 6B

FIRST REPORT OF SUB-WORKING GROUP 6B-1

Having considered the subject of procedures for the implementation of the Fixed Satellite Service relative to the Broadcasting-Satellite Service, based on the documents presented to it and on the applicable portions of Article 9A of the Radio Regulations, Sub-Working Group 6B-1 has reached the following conclusions:

1. The present provisions for advance publication of information, co-ordination and notification of frequency assignments as contained in Sections I, II and III of Article 9A of the Radio Regulations provide suitable procedures for the Fixed Satellite Service relative to the Broadcasting-Satellite Service.

2. In this connection it is felt that No. 639AD should be understood to provide for consideration of interference to Broadcasting-Satellite Services whose stations are included in a formal plan (or for which the procedure of modification to the plan has been applied) which may be a part of the Final Acts of this Conference.

3. Similarly, No. 639AJ would be understood to provide for co-ordination with stations of the Broadcasting-Satellite Service in the same band which are included in a formal plan (or for which the procedure of modification to the plan has been applied) which may be a part of the Final Acts of this Conference.

4. With respect to the method presently set forth in Appendix 29 to determine the need for co-ordination of proposed stations in the Fixed Satellite Service with other space systems, no revisions were considered necessary of this time.

5. The proposals for procedures contained in Documents Nos. 7 (U.S.A.) and 33 (Brazil) appear to have secondary implications for the Fixed Satellite Service. However, since those proposals are primarily directed to the Broadcasting-Satellite Service, Sub-Working Group 6B-1 will give further consideration to those documents only if requested by those delegations following consideration of the documents in the appropriate groups concerned with the Broadcasting-Satellite Service.

6. The decisions of other Working Groups or Committees may later require some revision of the above conclusions. It would be desirable for Committee 4 to confirm that information furnished in accordance with Appendix 1B will give the data necessary to calculate possible interference from a proposed Fixed Satellite system to a station in the Broadcasting-Satellite Service.

H.E. WEPPLER
Chairman of Sub-Working Group 6B-1

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/20-E
20 January 1977
Original : English

WORKING GROUP 4A

Working Group 4A

PROTECTION RATIO MARGIN

For planning purposes, Committee 4 recommends that a margin of 1 dB should be added to the protection ratio specified in Document No. 68 in order to take into account the ageing of the satellite transmitter.

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/21-E
20 January 1977
Original: English
French

COMMITTEE 4

NOTE FROM THE CHAIRMAN OF COMMITTEE 4

Rain climatic zones

The Administrations are requested to examine urgently the information contained in Annex 1 to document DT/16(Rev.1) concerning the rain climatic zones and to furnish, as necessary, the additional information and/or corrections on the form given in Annex 2 to the document mentioned above, not later than 21 January 1977, at 1200 hours, as decided in Committee 4 :

IFRB - Box No. 4000

F. KRALIK
Chairman, Committee 4

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/22-E
21 January 1977
Original : English

WORKING GROUP 4B4

Sub-Group 4B4

REFERENCE ANTENNA DIAMETER FOR A
FIXED-SATELLITE EARTH STATION FOR CALCULATING INTERFERENCE
FROM SATELLITES IN THE BROADCASTING SERVICE

1. Having considered the documents presented to Sub-Group 4B4 on this subject, the Sub-Group reached the following conclusion which is submitted to Committee 4A for its consideration.

2. It was noted that for antennae larger than 100 λ (2.5 m) in the Fixed-Satellite Service the gain of the sidelobes is given by the equation $32 - 25 \log \theta$, where θ is the angle from the boresight (CCIR Recommendation 465), and that the sidelobe gain is independent of antenna diameter.

3. However it was noted that for the case of transmitting earth stations, the amount of interference radiated into the uplink of other satellite systems would depend upon the antenna diameter. In this case the interference decreases as the antenna diameter is increased. Since the 11.7 - 12.2 GHz band is only assigned in the space-to-earth direction, this point is not of direct concern.

4. In view of the above, it does not appear appropriate to identify a minimum antenna diameter for receiving earth stations in the Fixed-Satellite Service sharing the band 11.7 - 12.2 GHz. It may be useful to consider a 4.5 m antenna as typical for the purposes of planning the sharing of this band, however, it should be noted that consideration is being given by Administrations in Region 2 to the use of antennae having diameters ranging from 3 m to 10 m.

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/23-E
21 January 1977
Original : French

COMMITTEE 4

Note from the Chairman of Committee 4 to Committee 6

DRAFT

During the discussion that took place in Committee 4 on the problems of energy dispersal, some delegations expressed the wish that the introduction of energy dispersal in broadcasting-satellite systems should be optional for those countries that did not plan to use the 11.7 - 12.2 (12.5) MHz band for the Fixed-Land Services.

Committee 4 took note of this point, but considered that any decision on the matter had to be taken by Committee 6, which is responsible for procedures.

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/24-E
21 January 1977
Original: English

SUB-WORKING GROUP 6B-2

Procedures for co-ordination, notification and registration for stations of Terrestrial Services in the bands 11.7 - 12.2 GHz (in Regions 2 and 3) and 11.7 - 12.5 GHz (in Region 1)

GENERAL

1. It is proposed that in the 11.7 - 12.2 GHz band (12.5 GHz in Region 1) the requirements for consultation between a country wishing to introduce a terrestrial station and a country with a planned or operational satellite broadcasting service should be based on the power flux density produced by the terrestrial station at the other country's /edge of service area/ frontier/. This density should be compared to a limit necessary to protect the Broadcasting-Satellite Service. No consultation between administrations would be necessary if the interfering power flux density produced by the terrestrial station is found to be less than the limit for any point on the /edge of service area/ frontier/. The Annex (2) proposes a regulatory text and a method for calculating the limiting power flux density and the power flux density produced by a terrestrial station, the technical details of the method and the values to be inserted being subject to confirmation by Committee 4.

2. In cases where the terrestrial stations has not to be co-ordinated the present provisions of Nos. 486, 490 and 501 of the Radio Regulations apply.

3. In cases where the terrestrial station is to be co-ordinated, a co-ordination procedure as described in provisions Nos. 492A to 492GB of the Radio Regulations in which the co-ordination distance approach is replaced by the power flux density approach, apply.

4. The notification and registration of such assignments are to be done in application of provisions of No. 486 of the Radio Regulations and following, and sub-section IIB of Article 9. A terrestrial station could be recorded, with an unfavourable finding relating to technical examination. However, it should cease emission as soon as harmful interference is reported.

/5. A diagram showing the different steps of the procedure is to be found in Annex 1./

6. The details of the procedure are outlined in Annex 2.

ARCHIVES U.I.T. GENÈVE

K. OLMS
Chairman of Sub-Working Group 6B-2

Annexes: 2

[ANNEX 1]

ANNEX 2

COORDINATION NOTIFICATION AND RECORDING IN THE MASTER INTERNATIONAL FREQUENCY REGISTER OF FREQUENCY ASSIGNMENTS TO TERRESTRIAL STATIONS IN THE FREQUENCY BAND 11.7 - 12.2 GHz IN REGIONS 2 AND 3 AND 11.7 - 12.5 GHz IN REGION 1

~~ARTICLE 9~~

~~Spa2 Notification and Recording in the Master International Frequency Register of Frequency Assignments[1] to Terrestrial Radiocommunication Stations[2]~~

Section I. Notification of Frequency Assignments ~~and Co-ordination Procedure to be Applied in appropriate Cases~~

1.1 (486 Spa2) ~~§ 1. (1)~~ Any frequency assignment[3] to a fixed, land, broadcasting[4], ~~radionavigation land, radiolocation land or standard frequency station, or to a ground based station in the meteorological aids service;~~ shall be notified to the International Frequency Registration Board:

a) if the use of the frequency concerned is capable of causing harmful interference to any service of another administration[1]; or

b) if the frequency is to be used for international radiocommunication; or

c) if it is desired to obtain international recognition of the use of the frequency[1].

or

and where the coordination prescribed in paragraph 2 is required

1.2 (489) § 2. (1) For ~~any~~ notification, ~~under Nos. 486 or 487~~ this / an individual notice for each frequency assignment shall be drawn up as prescribed in Sections A or B of Appendix 1/ which specify the basic characteristics to be furnished, according to the case. It is recommended that the notifying administration should also supply the additional data called for in that Appendix, together with such further data as it may consider appropriate. / to the Radio Regulations

the coordination prescribed in paragraph 2 is not required

1.3 (490 Spa2) (2) When ~~stations of the same service, such as the land mobile service, use a band of frequencies above 28 000 kHz in a specific area or areas,~~ an individual notice should be drawn up, as prescribed in Section C of Appendix 1/, which specifies the basic characteristics to be furnished, for each frequency on which there are assignments within the band; however, the particulars should relate only to a typical station. ~~This does not apply to broadcasting stations or to other terrestrial stations to which the provisions of Sub-Section IIB of this article apply or to other stations of the fixed or mobile service which operate in frequency bands listed in Table II of Appendix 28 with equivalent isotropically radiated power exceeding the corresponding values listed in the table.~~ / to RR

---

1. The attention of Administrations is specifically drawn to the application of the provisions of paragraph 2 hereafter.

1.4 (491 Spa2) § 3. (1) Whenever practicable, each notice should reach the Board before the date on which the assignment is brought into use. / It must reach the Board not earlier than ninety days before the date on which it is to be brought into use, but in any case not later than thirty days after the date it is actually brought into use. ~~However, for a frequency assignment to one of the terrestrial stations mentioned in Sub-Section IIB of this article or in No. 639AQ, the~~ Notices/ must reach the Board not earlier than three years and not later than ninety days before the date on which the assignment is to be brought into use.

/ Notices made in accordance with paragraph 1.3

/ made in accordance with paragraph 1.2

1.5 (492 Spa2) (2) Any frequency assignment, the notice of which reaches the Board more than thirty days after the notified date of bringing into use, or ~~In the case of a terrestrial station mentioned in Sub-Section IIB of this article, any frequency assignment,~~ the notice of which reaches the Board less than ninety days before it is brought into use, shall, where it is to be recorded, bear a remark in the Master Register to indicate that it is not in conformity with No. (491.) 1.4.

/ for which coordination is required and

2. Before a / contracting / Administration notifies to the Board a frequency assignment to a terrestrial transmitting station, it shall initiate coordination with any other Administration for which an assignment to a broadcasting-satellite station appears in / the Plan / if

- the occupied bandwidths of the two transmissions overlap or are separated by less than / --- / MHz and
- the PFD which would be produced by the proposed terrestrial transmitting station exceeds

  / --- dBW/m^2 /

  / the value specified in / the Plan / for the service area concerned /

  / a value derived in accordance with Appendix / X / /

  at one or more points of / the frontier / / the edge of service area of the Broadcasting-Satellite Service station /.

2.1 (492A) For the purpose of effecting the coordination, the Administration responsible for the terrestrial station shall send to the Administrations concerned by the fastest possible means, a copy of a diagram drawn to an appropriate scale indicating the location of the terrestrial station and all other pertinent details of the proposed frequency assignment, and the approximate date on which it is planned to bring the station into use.

2.2 (492B Spa2) ~~(2)~~ An administration with which co-ordination is sought ~~under No. 492A~~ shall acknowledge receipt of the co-ordination data immediately by telegram. If no acknowledgement is received within fifteen days of dispatch, the administration seeking co-ordination may dispatch a telegram requesting acknowledgement of receipt of the co-ordination data, to which the receiving administration shall reply. Upon receipt of the co-ordination data an administration shall promptly examine the matter with regard to interference [1] which would be caused to ~~the services rendered by its earth stations~~ operating in accordance with ~~the Convention and these Regulations, or to be so operated within the next three years, with the proviso that in this latter case co-ordination specified in No. 639AN has been effected or that the co-ordination procedure has already been initiated~~, and shall, within an overall period of sixty days from dispatch of the co-ordination data, either notify the administration requesting co-ordination of its agreement to the proposals or, if this is not possible, indicate the reasons therefor and make such suggestions as it may be able to offer with a view to a satisfactory solution of the problem.

/ its assignments / Plan /

2.3 (492C Spa2) ~~(3)~~ No co-ordination ~~under No. 492A~~ is required when an administration proposes:

to change the characteristics of an existing assignment in such a way as not to increase the level of interference to the earth stations of other administrations.

ted,
ion

2.4 (492D) NOC

2.5 (492E) NOC

2.6 (492F) NOC

2.7 (492FA) NOC

2.8 (492FB) NOC

2.9 (492FC) NOC

2.10 (492G) NOC

2.11 (492GA) NOC

/ 2.12 (492GB) NOC / depending on the decision of SWG 6A-1 on J/18/30.

3. (493) NOC

4. (494) NOC

2.2.1. (492B.1 Spa2) [1] The criteria to be employed in evaluating interference levels shall be based upon relevant C.C.I.R. Recommendations or, in the absence of such Recommendations, shall be agreed between the administrations concerned.

5. (495) NOC

6. Section II : Procedure for the Examination of Notices and the Recording of Frequency Assignments in the Master Register.

6.1 (496) NOC

6.2 (497) NOC

6.3 (498) NOC

6.4 (499) NOC

7. Sub-Section A : Procedure to be followed in cases where coordination is not required.

7.1 (500) (501) The Board shall examine each notice with respect to its conformity with the Convention, the relevant provisions of the RR and the other provisions of the Final Acts (with the exception of those relating to the probability of harmful interference and the coordination procedure).

7.2 (506) NOC

7.3 (507) NOC

7.4 (508) NOC

7.5 **519** ~~§ 14. (1)~~ ***Finding Unfavourable with Respect to No. 501*** ~~*in cases where the Provisions of Nos.* **502** *or* **503** *are not applicable (see No.* **504**~~*).*

7.6 (520) NOC

7.7 (521) NOC

7.8 (522) NOC

7.9 (536) NOC

7.10 (537) NOC

7.11 (538) NOC

7.12 (539) NOC

8. Sub-Section B : Procedure to be followed in cases where coordination is required.

8.1 (570AA) NOC

8.2 (570AB Spa) *a)* with respect to its conformity with the Convention, the ~~Table of Frequency Allocations and~~ the ~~other~~ /relevant provisions of the Radio Regulations /and the other provisions of the Final Acts (with the exception of those relating to the co-ordination procedure and the probability of harmful interference);

8.3 (570AC) NOC

8.4 (570AD)

c) where appropriate, with respect to the probability of harmful interference to a Broadcasting-Satellite station existing in / the Plan /

8.5 (570AE) NOC

8.6 (570AF) NOC

8.7 (570AG) NOC

8.8 (570AGA) NOC

8.9 (570AGB Spa2) ~~(4)~~ If the finding is unfavourable with respect to No. 570AC or 570AD, as appropriate, the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding. Should the administration insist upon reconsideration of the notice, the assignment shall be recorded in the Master Register. However, this recording is made under the assumption, that the notifying Administration undertakes to cease immediately the emission as soon as harmful interference is reported.

8.10 (570AH) NOC

8.11 (570AI) NOC

8.12 (570AJ) NOC

8.13 (570AK) NOC

8.14 (570AL) NOC

8.15 (570AM) NOC

8.16 (570AN) NOC

8.17 (570AO) NOC

8.18 (570AP) NOC

8.19 (570AQ) NOC

8.20 (570AR) NOC

8.21 (570AS) NOC

8.22 (570AT) NOC

8.23 (570AU) NOC

8.24 (570AV) NOC

8.25 (570AW) NOC

8.26 (570AX) Spa2 **(4) Should the notifying administration resubmit the notice, either unchanged, or with modifications which decrease the probability of harmful interference, but not sufficiently to permit the provisions of No. 570AW to be applied and should that administration insist upon reconsideration of the notice, but should the Board's finding remain unchanged, the assignment shall be recorded in the Master Register. However,** this recording is made under the assumption that the notifying Administration undertakes to cease immediately the emission as soon as harmful interference is reported.

8.27 (570AZ) NOC

8.28 (570BA) NOC

8.29 (570BB) NOC

8.30 (570BC) NOC

8.31 (570BD) NOC

8.32 (570BE) NOC

8.33 (570BF) NOC

9. If use by a terrestrial station of an assignment, which is not in conformity with the foregoing, causes harmful interference to the reception of emissions from a space station in the Satellite-Broadcasting Service using an assignment in conformity with the plan, the Administration having jurisdiction over the terrestrial station, on being advised accordingly, shall take immediate measures to eliminate the interference.

A P P E N D I X*) /X/

DETERMINATION OF THE LIMITING POWER FLUX-DENSITY AT THE BOUNDARY OF A COUNTRY OPERATING A BROADCASTING-SATELLITE SERVICE AND FOR PREDICTING THE POWER FLUX-DENSITY PRODUCED BY A TERRESTRIAL STATION IN THE BAND 11.7 - 12.2 GHz (12.5 GHz REGION 1)

1. General

1.1 This Appendix describes a method of assessing the interference potential from terrestrial transmitters to broadcasting-satellite receivers in the frequency range 11.7 - 12.2 GHz (12.5 GHz in Region 1).

1.2 The method is in two parts :

1) the calculation of the maximum permissible interference pfd at the /frontier/ /edge of the service area/ of the country receiving broadcasting satellite transmission;

2) the calculation of the likely pfd produced at any point on the /frontier/ /edge of the service area/ of the receiving country by the terrestrial transmitter of another country.

1.3 The interference potential of the terrestrial transmitters must be considered case by case; the pfd produced by each terrestrial transmitter is compared to the limiting pfd at any point on the /frontier/ /edge of the service area/ of the country receiving broadcasting satellite transmissions. If, for a given transmitter, the value of the pfd produced is lower than the value of the limiting pfd at any point on the /frontier/ /edge of the service area/ of the receiving country, it is considered that the interference produced to the Broadcasting-Satellite Service by this transmitter is lower than the permissible value and no consultation is required between administrations before the Terrestrial Service is brought into use. Where this is not the case consultation and further, more precise calculations derived from a mutually agreed basis are necessary.

1.4 It is emphasized that, should the calculation described in this Appendix indicate that the maximum permissible pfd is exceeded, it does not necessarily preclude the introduction of the Terrestrial Service, since, in order to reduce the need for bilateral coordination, the calculations are based on worst case assumptions for :

a) the nature of the terrain of the interference path;

b) the off-beam discrimination of the broadcasting-satellite receivers;

c) the necessary protection ratios for broadcasting-satellite transmissions.

---

*) Technical details and values to be inserted to be adopted in Committe 4.

2. Limit of power flux-density

2.1 General

The limiting power flux-density not to be exceeded at a country's /frontier/ /edge of service area/ in order to protect the Broadcasting-Satellite Service of that country is given by the formula :

$$F = Fo - R + D \qquad (1)$$

When :

F = the maximum permissible interfering power flux-density (in $dB(W/m^2)$) in the satellite-broadcasting wanted bandwidth;

Fo = the wanted power flux-density (in $dB(W/m^2)$) at the edge of the service area;

R = the protection ratio (in dB) between the wanted and interfering signals;

D = angular discrimination (in dB) provided by the antenna radiation pattern of the satellite-broadcasting receiver.

2.2 Wanted power flux-density

The value of Fo is equal to :

a) /...../ $dB(W/m^2)$ for individual reception in a 27 MHz bandwidth;

b) /...../ $dB(W/m^2)$ for community reception (is covered up to elevation angles of 1.5^o by protection of the value under a)).

2.3 Protection ratio

2.3.1 The protection ratio against all terrestrial transmissions with the exception of AM multichannel TV systems is equal to 30 dB for carrier-frequency differences between the wanted and interfering signals of up to ±5 MHz, decreasing linearly from 30 dB to 0 dB for carrier-frequency differences between 5 MHz and 30 MHz and is equal to 0 dB for frequency differences in excess of 30 MHz (see Figure 1).

2.3.2 The carrier frequency difference should be determined by reference to the frequencies allocated in the broadcasting-satellite plan. For AM multichannel TV systems which produce peaks of high power flux-density spread over a wide range of their occupied bandwidth, protection ratio R is equal to 30 dB and is independent of the carrier-frequency difference.

2.3.3 A terrestrial signal should only be considered if its occupied bandwidth overlaps or is separated by less than /.... MHz/ from the occupied bandwidth of the broadcasting-satellite assignment.

2.4 Angular discrimination

2.4.1 The angular discrimination D (in dB) is given as a function of the satellite elevation angle ϕ by the following expressions (see Figure 2) :

$$\begin{aligned} D &= 0 && \text{for } 0 < \phi \leq 0.6 \\ D &= 2.08\,\phi^2 && \text{for } 0.6 < \phi \leq 1.7 \\ D &= 1.4 + 20 \log \phi && \text{for } 1.7 < \phi \leq 3.02 \\ D &= -1 + 25 \log \phi && \text{for } 3.02 < \phi \leq 22.9 \\ D &= 33 && \text{for } \phi > 22.9 \end{aligned} \qquad (2)$$

2.4.2 The satellite elevation angle ϕ at a given point on the edge of the service area can be calculated by :

$$\phi = \text{arc tan} \frac{\cos n - 0.151}{\sin n} \qquad (3)$$

Where :

$$\cos n = \cos p \cos u \qquad (3a)$$

u = the longitude difference between the considered on /- the edge of the service area -/ /- the frontier -/ and the satellite

p = the latitude of the point considered on the /- edge of the service area -/ /- frontier -/

A graph of this relation is shown in Figure 3.

3. Power flux-density produced by a terrestrial station

The power flux-density Fp produced at one or more points on the /- edge of the service area -// frontier -/ by the terrestrial station is determined from the following formula :

$$Fp = E - A + 43 \text{ /- dBW/m}^2 \text{ -/} \qquad (4)$$

where E = the effective isotropic radiated power in dBW of the terrestrial station in the direction of the point on the /- edge of the service area -/ /- frontier -/ concerned,

and A = the total path loss in dB.

3.1 Evaluation of path loss A for a terrestrial station at a distance greater than 100 km from the /- edge of the Broadcasting-Satellite Service area -/ /- frontier -/

For path lengths greater than 100 km, A is given by :

$$A = 137.6 + 0.225\, d_t + 0.074\, d_m + 0.0074\, (d_t + d_m) \qquad (5)$$

where d_t and d_m are the overland and oversea path lengths respectively, in km.

3.2 Evaluation of path loss A for a terrestrial station at a distance less than 100 km from the / edge of the Broadcasting-Satellite Service area / / frontier /

For path lengths equal to or less than 100 km, A should be calculated using equations (5) and (6) and the lowest value obtained substituted in formula (4) to calculate the power flux-density produced at the point of the / edge of the service area / / frontier / :

$$A = 109.5 + 20 \log(d_t + d_m) \qquad (6)$$

The variation of A for different path lengths and proportions of oversea path is shown in Figure 4.

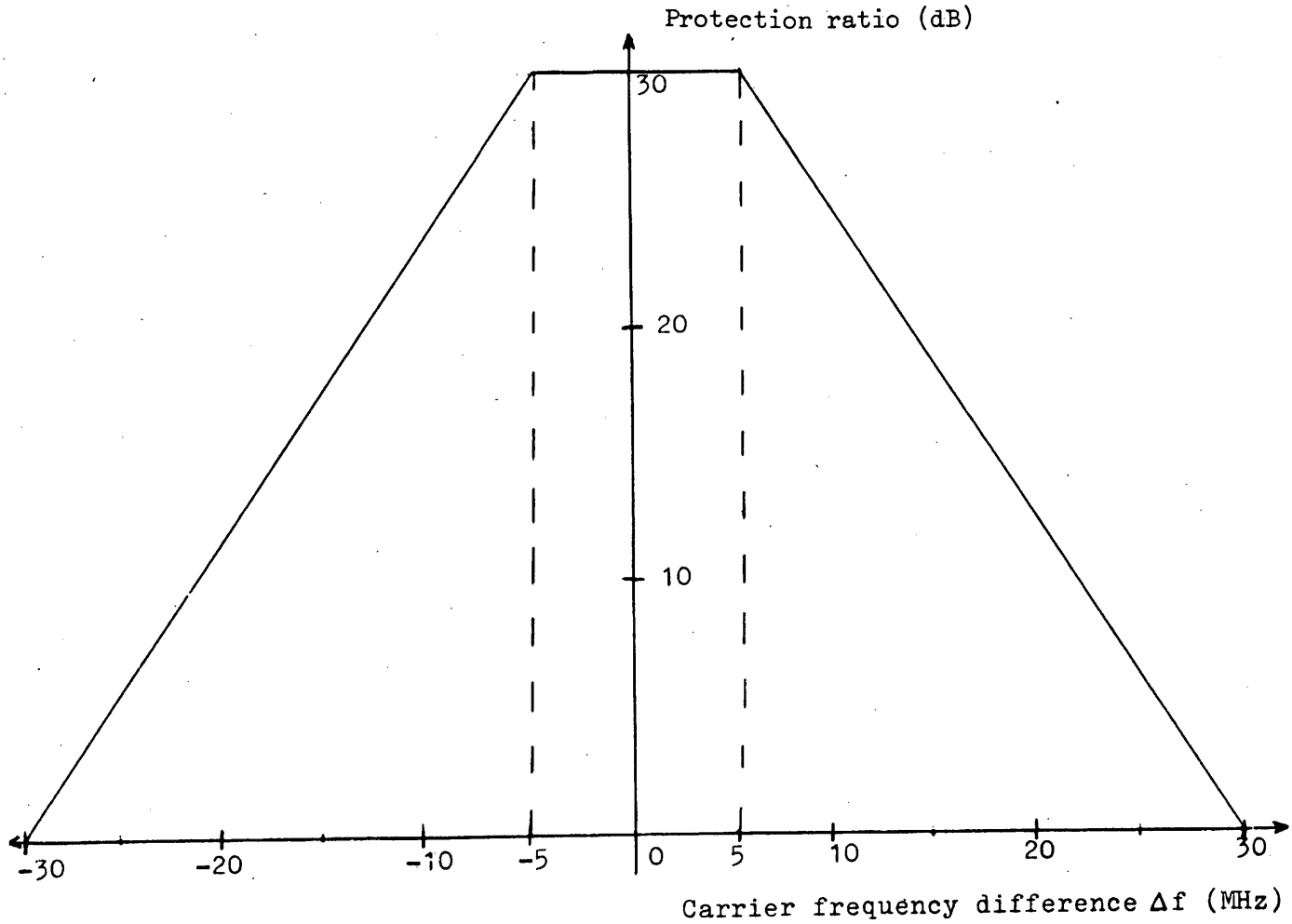


Figure 1 - Protection ratio (dB) for a satellite broadcasting signal against interfering signals from terrestrial stations

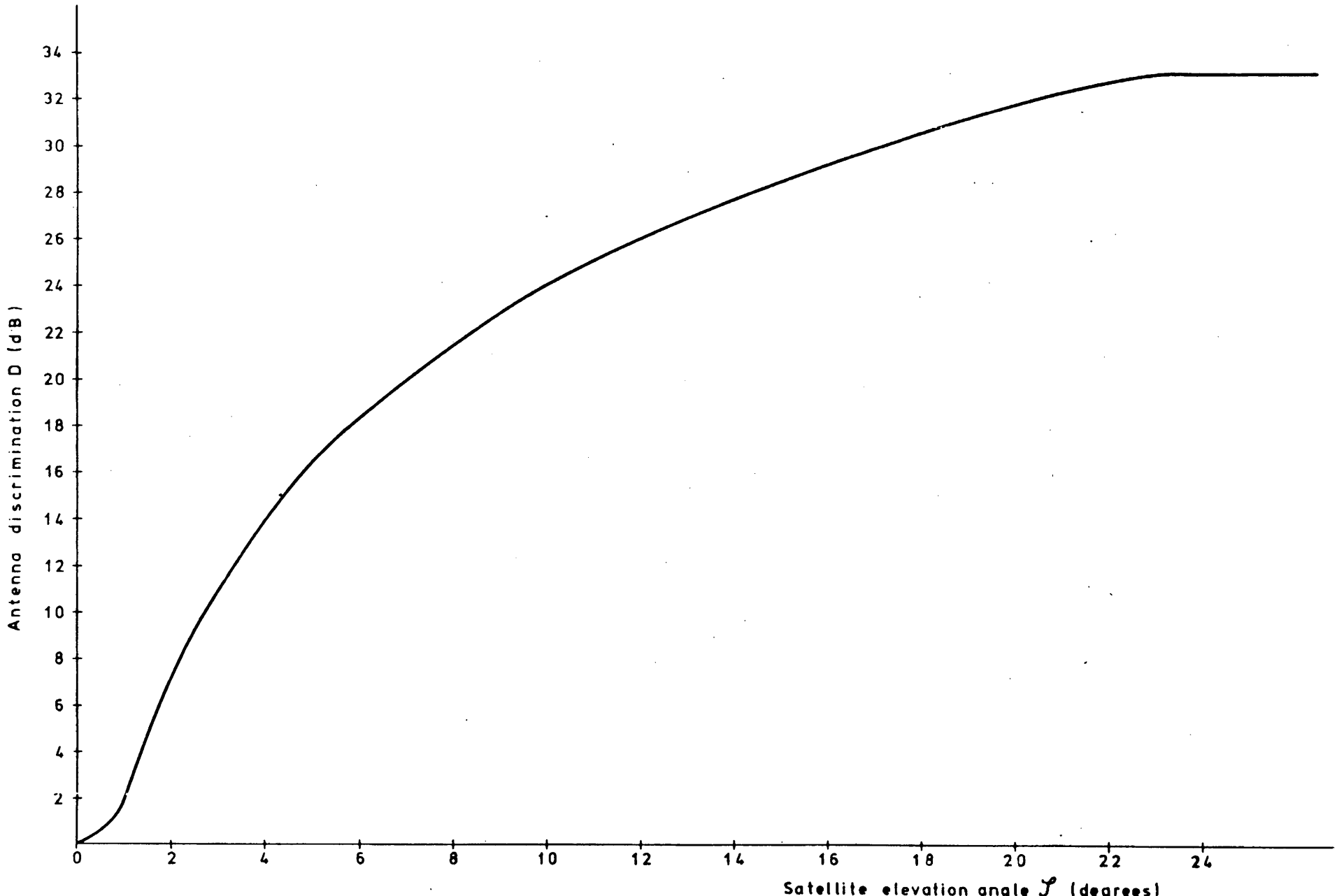


Figure 2 – Variation of satellite broadcast receiver antenna discrimination with satellite elevation angle

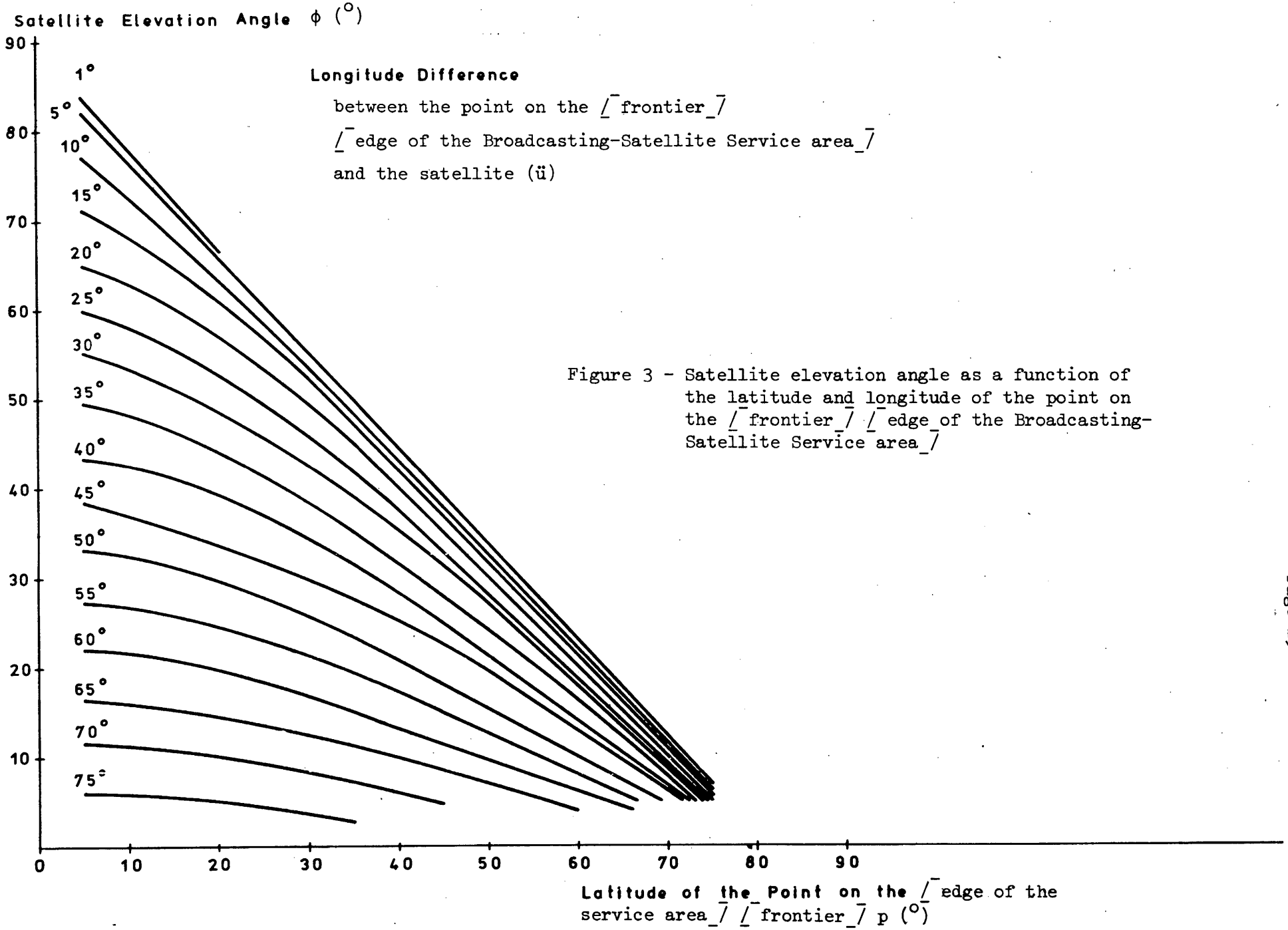


Figure 3 - Satellite elevation angle as a function of the latitude and longitude of the point on the /frontier/ /edge of the Broadcasting-Satellite Service area/

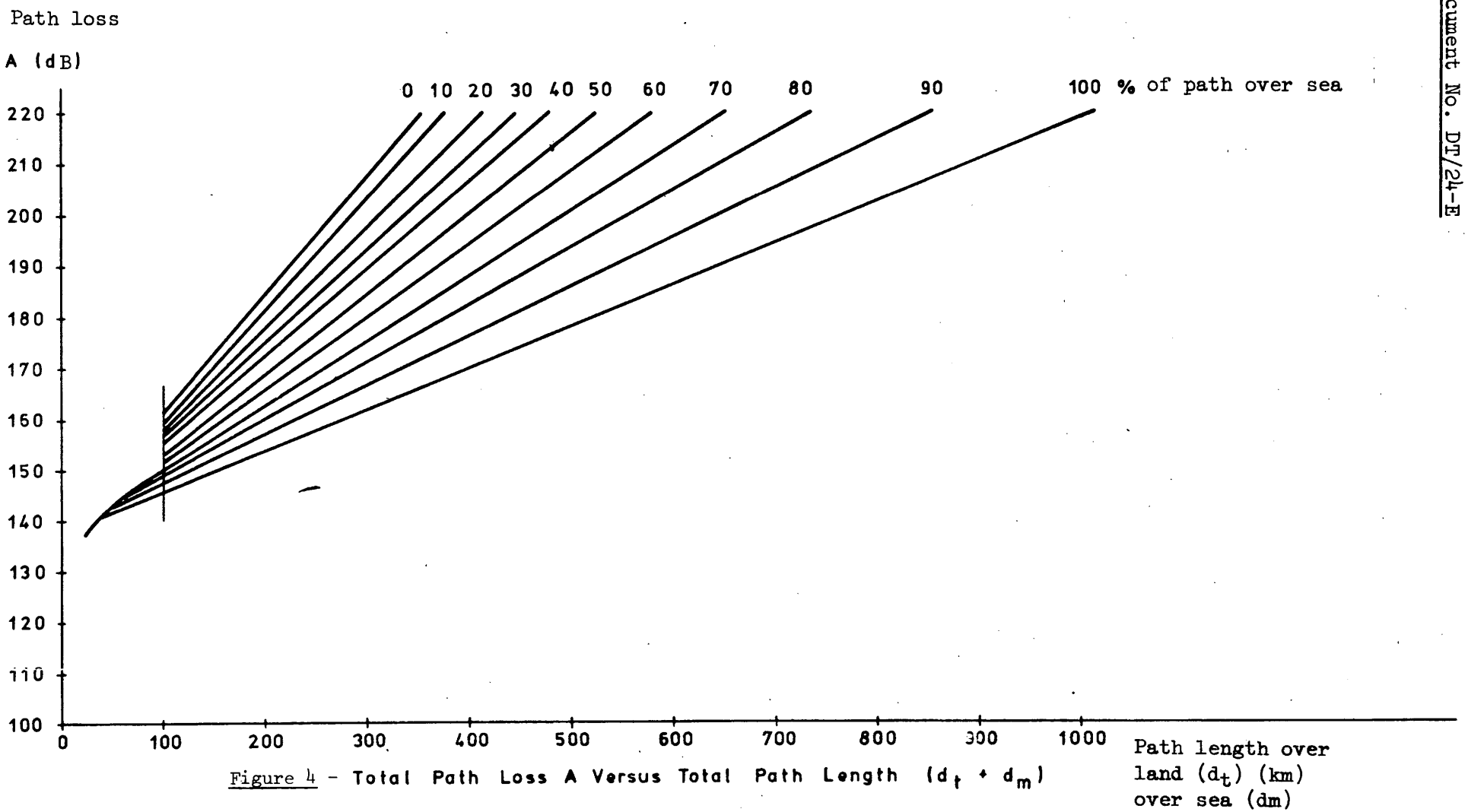


Figure 4 - Total Path Loss A Versus Total Path Length ($d_t + d_m$)

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/25-E
24 January 1977
Original : English

SUB-WORKING GROUP 4B1

Sub-Working Group 4B1

DETERMINATION OF THE NEED TO COORDINATE A PROPOSED TERRESTRIAL ASSIGNMENT WITH RESPECT TO THE BROADCASTING-SATELLITE SERVICE IN THE BAND 11.7-12.2 GHz (12.5 GHz REGION 1)

Explanatory note on the attached Appendix

It is proposed that the attached Appendix be appended to the Regulatory Provisions contained in the Final Acts (currently being prepared in Committee 6) to specify the technical calculations necessary to determine whether a proposed terrestrial assignment needs to be coordinated, with another administration, in respect of the Broadcasting-Satellite Service.

The basic concept of the procedure is that at the edge of the service area of a broadcasting satellite there is a maximum interfering power flux-density limit. If calculations indicate that the proposed terrestrial assignment will produce a power flux-density in excess of the acceptable limit at the edge of the service area, then it is necessary for the assignment to be coordinated with the appropriate administration.

The maximum acceptable power flux-density at the edge of the service area depends, in part, on the angular discrimination and hence the elevation angle of the broadcasting-satellite receivers within the service area. In order to simplify the calculation of the maximum acceptable power flux-density it is proposed that, associated with the plan, there should be stated, for each service area, the elevation angle to be protected. Clearly it would be logical for this to be the lowest angle of elevation within the service area.

In a small number of cases with large service areas in high latitudes the elevation angles within the service area may cover a large range, say 7°, or more. In these cases where the maximum elevation angle is lower than 19° it may be necessary to specify two or at the most three values of elevation angle to be protected. This would ensure that under these conditions the calculated interfering power flux-density was not over-pessimistic.

Appendix : 1

ARCHIVES U.I.T. GENÈVE

A P P E N D I X

DETERMINATION OF THE LIMITING INTERFERING POWER FLUX-DENSITY AT THE EDGE OF A BROADCASTING-SATELLITE SERVICE AREA AND FOR PREDICTING THE POWER FLUX-DENSITY PRODUCED AT THAT POINT BY A TERRESTRIAL STATION IN THE BAND 11.7-12.2 GHz (12.5 GHz REGION 1)

1. General

1.1 This Appendix describes a method of assessing the interference potential from terrestrial transmitters to broadcasting satellite receivers in the frequency range 11.7 - 12.2 GHz (12.5 GHz in Region 1).

A terrestrial signal should only be considered if occupied bandwidth overlaps or is separated by less than .... MHz from the occupied bandwidth of the broadcasting-satellite assignment.

1.2 The method is in two parts :

i) the calculation of the maximum permissible interfering power flux-density (pfd) at the edge of the Broadcasting-Satellite Service area concerned;

ii) the calculation of the likely pfd produced at any point on the edge of the service area by the terrestrial transmitter of another Administration.

1.3 The interference potential of the terrestrial transmitters must be considered case by case; the pfd produced by each terrestrial transmitter is compared to the limiting pfd at any point on the edge of the service area of another Administration. If, for a given transmitter, the value of the pfd produced is lower than the value of the limiting pfd at any point on the edge of the service area, it is considered that the interference produced to the Broadcasting-Satellite Service by this transmitter is lower than the permissible value and no coordination is required between Administrations before the terrestrial service is brought into use. Where this is not the case, coordination and further, more precise calculations derived from a mutually agreed basis are necessary.

1.4 It is emphasized that, should the calculation described in this Appendix indicate that the maximum permissible pfd is exceeded, it does not necessarily preclude the introduction of the terrestrial service since the calculations are necessarily based on worst case assumptions for :

a) the nature of the terrain of the interference path,

b) the off-beam discrimination of the broadcasting-satellite receivers,

c) the necessary protection ratios for broadcasting-satellite transmissions.

2. Limit of power flux-density

2.1 General

The limiting power flux-density not to be exceeded at the edge of the service area in order to protect the Broadcasting-Satellite Service of another Administration is given by the formula :

$$F = Fo - R + D \qquad (1)$$

where F = the maximum permissible interfering power flux-density (in $dB(W/m^2)$) in the satellite broadcasting wanted bandwidth

Fo = the wanted power flux-density (in $dB(W/m^2)$) at the edge of the service area

R = the protection ratio (in dB) between the wanted and interfering signals

D = angular discrimination (in dB) provided by the antenna radiation pattern of the satellite broadcasting receiver.

2.2 Wanted power flux-density (Fo)

The value of Fo is equal to

a) [-103] $dB(W/m^2)$ for service areas in Regions 1 and 3

b) [-105] $dB(W/m^2)$ for service areas in Region 2

2.3 Protection ratio (R)

2.3.1 The protection ratio against all terrestrial transmissions with the exception of a.m.-multichannel TV systems is equal to 30 dB for carrier frequency differences between the wanted and interfering signals of up to $\pm$ 5 MHz, decreasing linearly from 30 dB to 0 dB for carrier frequency differences between 5 MHz and 30 MHz and is equal to 0 dB for frequency differences in excess of 30 MHz (see Figure 1).

2.3.2 The carrier frequency difference should be determined by reference to assignments (in the broadcasting-satellite plan). For a.m.-multichannel TV systems which produce peaks of high power flux-density spread over a wide range of their occupied bandwidth, protection ratio R is equal to 30 dB and is independent of the carrier frequency difference.

2.3.3 A terrestrial signal should only be considered if occupied bandwidth overlaps or is separated by less than .... MHz from the occupied bandwidth of the broadcasting-satellite assignment.

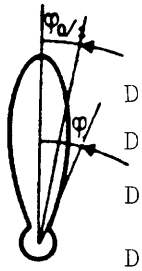
2.4 Angular discrimination (D)

2.4.1 Broadcasting-Satellite Service areas in Regions 1 and 3 where the angle of elevation (ϕ) as specified /in the plan/ for the Broadcasting-Satellite Service area concerned is equal to or greater than 19°, then the value of (D) to be assumed in expression (1) is 33 dB. In cases where ϕ is less than 19°, (D) should be derived from expression (2) below.

Note : If more than one value of ϕ is specified for a particular service area, then the value which is appropriate to the edge of the service area under consideration should be used when calculating angular discrimination (D).

2.4.2 Broadcasting-Satellite Service areas in Region 2 where the angle of elevation ϕ as specified /in the plan/ for the Broadcasting-Satellite Service area concerned is equal to or greater than 17°, then the value of (D) to be assumed in expression (1) is 33 dB. In cases where ϕ is less than 17° (D) should be derived from expression (2) below.

Note : If more than one value of ϕ is specified for a particular service area, then the value which is appropriate to the edge of the service area under consideration should be used when calculating the angular discrimination (D).



$$D = 0 \quad \text{for} \quad 0 \leq \varphi \leq 0.25\varphi_0$$
$$D = 12\left(\frac{\varphi}{\varphi_0}\right)^2 \quad \text{for} \quad 0.25\varphi_0 < \varphi \leq 0.707\varphi_0$$
$$D = \left[9.0 + 20\log_{10}\left(\frac{\varphi}{\varphi_0}\right)\right] \quad \text{for} \quad 0.707\varphi_0 < \varphi \leq 1.26\varphi_0$$
$$D = \left[8.5 + 25\log_{10}\left(\frac{\varphi}{\varphi_0}\right)\right] \quad \text{for} \quad 1.26\varphi_0 < \varphi \leq 9.55\varphi_0 \qquad (2)$$

For service areas in Regions 1 and 3 $\phi_0 = 2^\circ$

" " " " Region 2 $\phi_0 = 1.8^\circ$

Note : Graphical representation of expression (2) is given in Figure 2.

3. Power flux-density produced by a terrestrial station

The power flux-density F_p produced at any point on the edge of the service area by the terrestrial station is determined from the following formula :

$$Fp = E - A + 43 \ /\text{dBW/m}^2/ \qquad (3)$$

where E = the effective isotropic radiated power in dBW of the terrestrial station in the direction of the point on the edge of the service area concerned

and A = the total path loss in dB.

3.1 Evaluation of path loss A for a terrestrial station at a distance greater than 100 km from the edge of the Broadcasting-Satellite Service area

For path lengths greater than 100 km, A is given by :

$$A = 137.6 + 0.225\, d_t + 0.074\, d_m + 0.0074\, (d_t + d_m) \qquad (4)$$

where d_t and d_m are the overland and oversea path lengths respectively, in km.

3.2 Evaluation of path loss A for a terrestrial station at a distance less than 100 km from the edge of the Broadcasting-Satellite service area

For path lengths equal to or less than 100 km, A should be calculated using equations (4) and (5) and the lowest value obtained substituted in formula (3) to calculate the power flux-density produced at the point on the edge of the service area :

$$A = 109.5 + 20 \log (d_t + d_m) \qquad (5)$$

The variation of A for different path lengths and proportions of oversea path is shown in Figure 3.

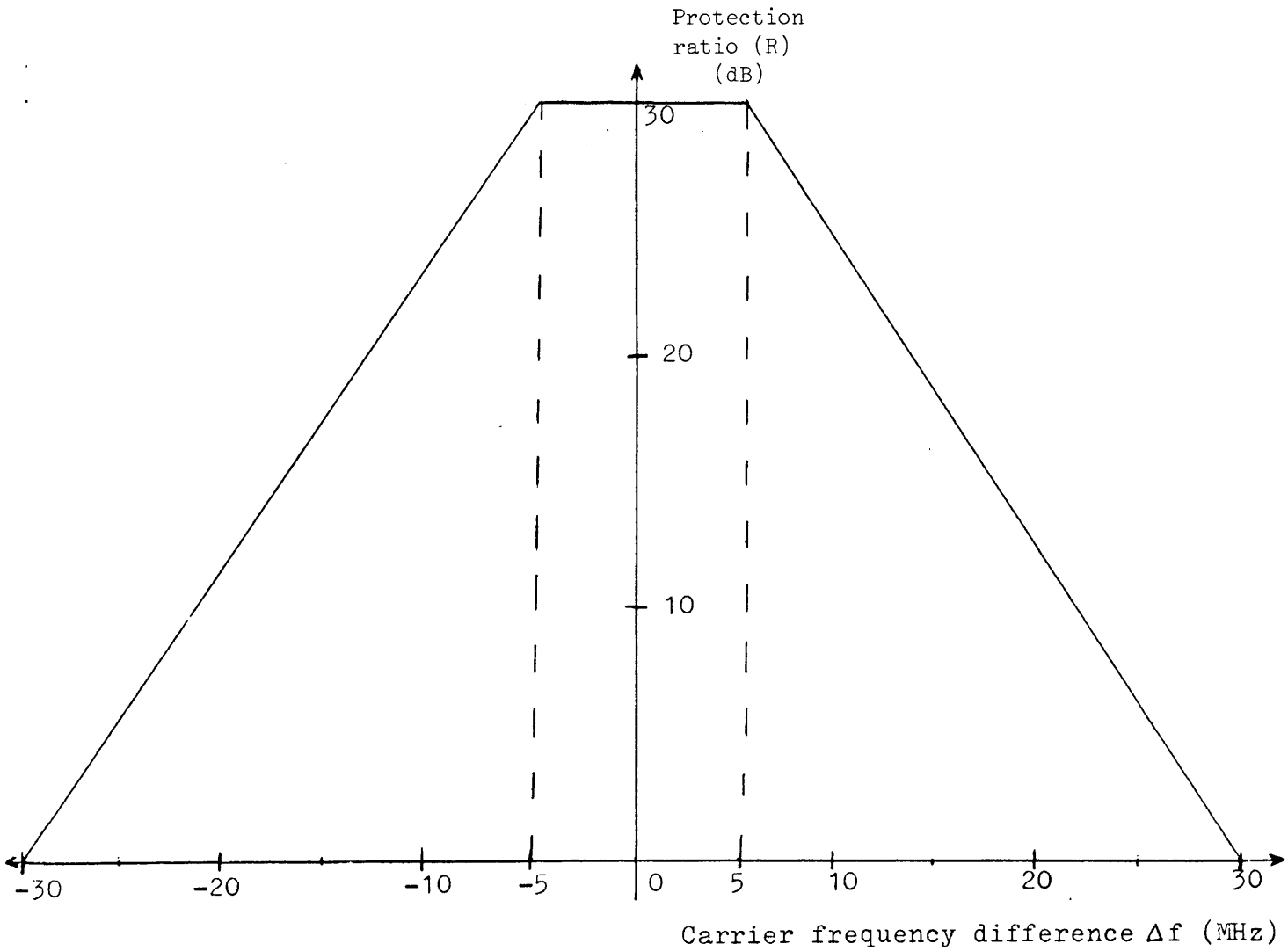
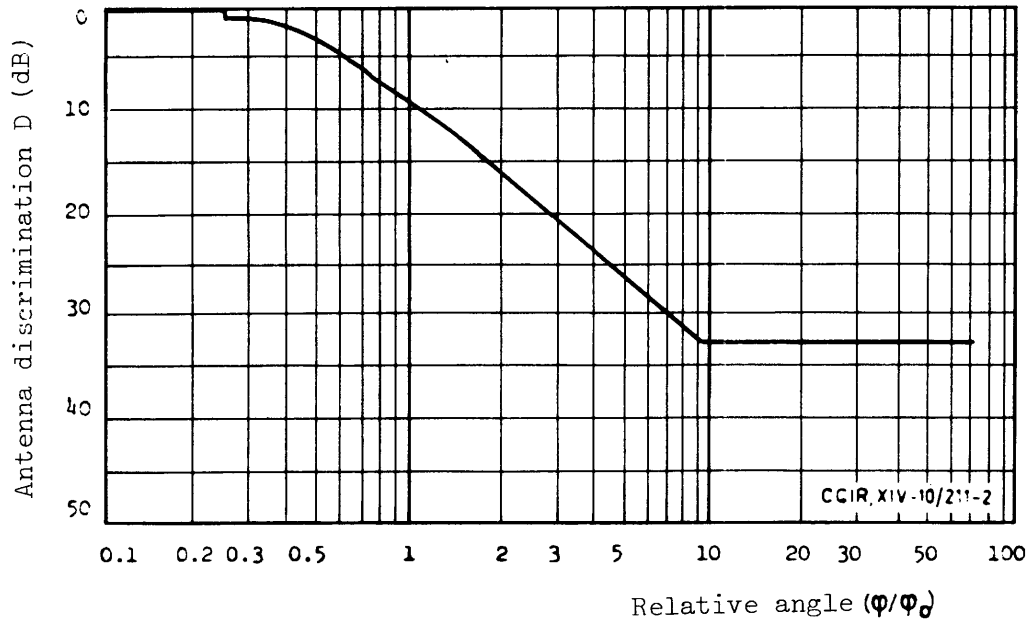


Figure 1 - Protection ratio (R) (dB) for a satellite broadcasting signal against interfering signals from terrestrial stations



For service areas in Regions 1 and 3 $\phi^{o} = 2^{o}$

For service areas in Region 2 $\phi^{o} = 1.8^{o}$

Figure 2 - Variation of satellite broadcasting receiver antenna discrimination with satellite elevation angle.

Note for Secretariat : The above graph is taken from Document No. 108, page 3.

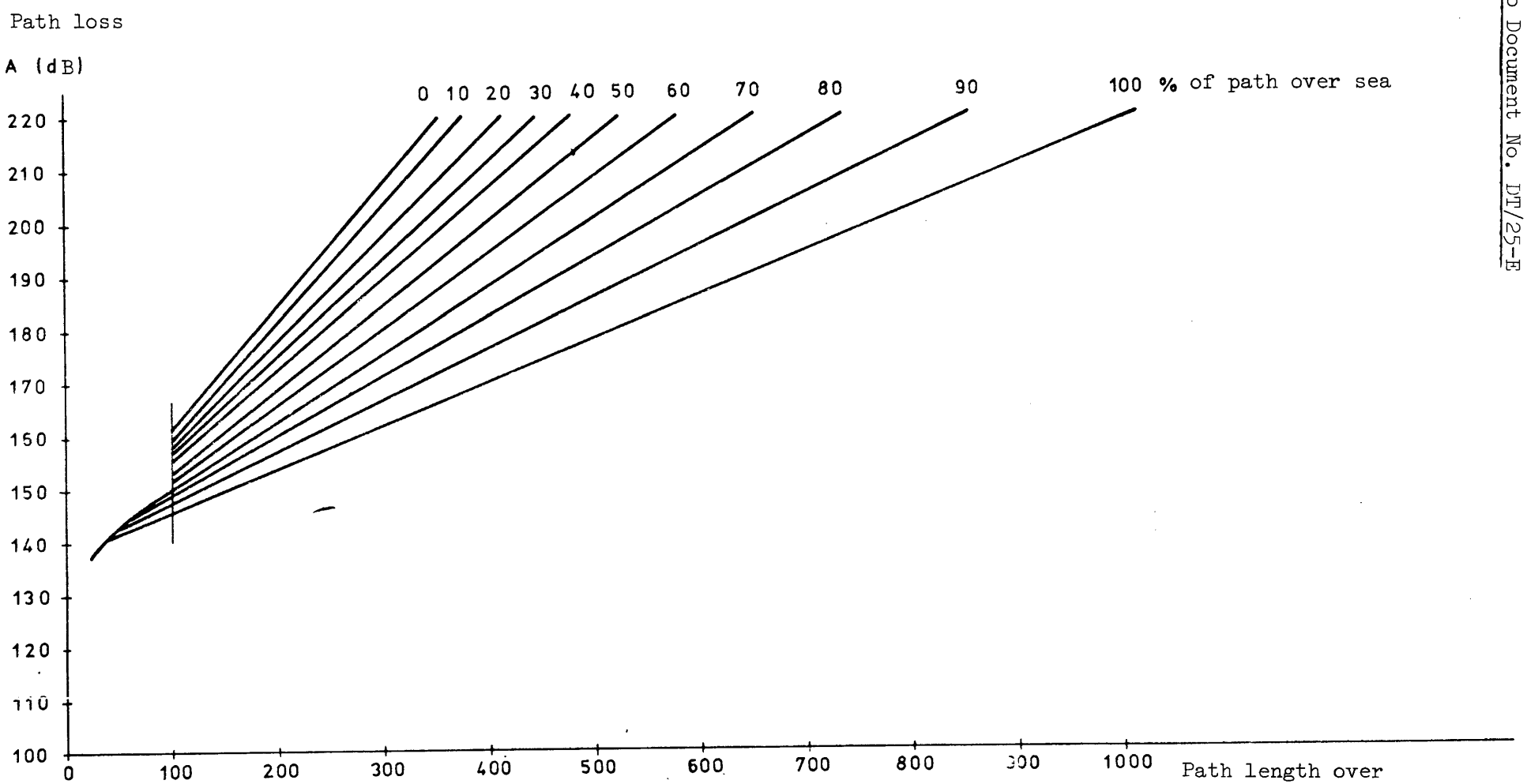


Figure 3 – Total Path Loss A Versus Total Path Length ($d_t + d_m$)

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/26-E
24 January 1977
Original: French
English
Spanish

COMMITTEE 6

FINAL ACTS

As there appears to be some doubt as to the actual content of the Final Acts of the Conference despite the agreement on the principles at the 4th Meeting of Committee 6 the following thoughts on the make up of the final Document are submitted to Committee 6 for consideration.

Plan (s) and Associated Provisions to govern the use of the bands 11.7 - 12.2 GHz in Regions 2 and 3 and 11.7 - 12.5 GHz in Region 1, by the Broadcasting-Satellite Service, and related information

Part I

1. Preamble
2. Definitions (General definitions) ?
3. Indication of scope of Final Acts - what frequency bands ?
   which services ?
4. Implementation of Plan (same as "execution of the Agreement" in LF/MF BC Conference R1 + R3)
5. Communication of approval procedures by Members (participants and non participants in Conference)
6. (Abrogation of Res Spa2 - 3 for the band in question) (Resolution ?)
7. Date of entry into force of the Final Acts
8. Duration.

II. Procedures

1. Procedures covering the bringing into use of assignments included in the Plan (s)
2. Procedures covering modifications to the Plan (s) (Results of Working Group 6A)
3. Procedures covering the other services vis-à-vis BC/SAT

   3.1 Fixed Satellite Service stations
   3.2 Terrestrial Services stations

   } (Results of Working Group 6B)

ARCHIVES U.I.T. GENÈVE

III. Plan (s)

1. Plan (s)

2. Annex to the Plan (s) = Technical data used in preparation of the Plan (s) and to be used in the application (?) of the Plan (s) and Associated Provisions and including technical definitions

IV. Sharing criteria

Sharing criteria for the band in question between the services to which the band is allocated (question of harmful interference ?) (separate booklet ?)

V. Protocols

VI. Resolutions (or Recommendations)

- Up-dating Master Register at the date entry into force Final Acts
- to 1979 WARC, to incorporate Plan and/Associated Provisions in Radio Regulations
- to Administrative Council, to include this question in the agenda of that Conference
- to enable revision of the Plan and/Associated Provisions only by a competent Administrative Radio Conference in accordance with Article 54 Convention
- covering relations between Regions, if Region 2 does not have a plan (see Radio Regulations No. 117)
- to cover any modification to the Radio Regulations which would be necessary (such as abrogation of Res Spa2 - 3 for the bands in question).
- Transitional Resolution (or Protocol) to cover the situation pending incorporation of the Plan and Associated Provisions in the Radio Regulations
- Resolution relating to the re-arrangement of the Radio Regulations.

R.J. BUNDLE
Chairman of Committee 6

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/27-E
24 January 1977
Original : English

SUB-GROUP 4B1

Sub-Group 4B1

CRITERIA FOR SHARING BETWEEN THE BROADCASTING-SATELLITE SERVICE AND TERRESTRIAL SERVICES

REPORT TO WORKING GROUP 4B

Sub-Group 4B1 considered the documents allocated to it and cencentrated at its first meeting on Document No. 15 from the Federal Republic of Germany. This document provides a method for estimating the worst-case power flux-density produced by a terrestrial station of one administration at the frontier of another administration. This calculated value is then compared to the acceptable value to see whether consultation is necessary.

Sub-Group 4B1 accepted the technical concepts presented in Document No. 15. The document has since been modified to simplify the method and to up-date the values of several parameters and the new text *) is presented to Working Group 4B for approval of its technical content.

M. GODDARD
Chairman, Sub-Group 4B1

*) The appropriate text appears as the Appendix to Document No. DT/25.

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/28-E
25 January 1977
Original : English

SUB-WORKING GROUP 4B2

Sub-Working Group 4B2

INTERREGIONAL SHARING

1. Introduction

This document has been written to serve as a working paper for Working Group 4B2. An example is developed which is particularly developed for the sharing problem between the Broadcasting-Satellite Service in Region 1 and the Fixed-Satellite Service in Region 2. The problem is presented parametrically in Figure 1.

2. Maximum PFD from a BSS (Region 1 or 3) interfering with a FSS (Region 2)

The maximum power flux-density (pfd) from a Broadcasting Satellite (BSS) in Region 1 or 3 interfering with a Fixed Satellite (FSS) in Region 2 is given by :

1) $PFD_{MAX.INT} = -103\ dBW/m^2 + A + B$

A = ratio of beam centre to service area edge
= 3 dB

B = atmospheric attenuation factor
= 2 dB

thus

2) $PFD_{MAX.INT} = -98\ dBW/m^2$

Corresponding to a maximum value of 65 dBW for BSS beam centre e.i.r.p.

3. Maximum PFD from a BSS (Region 1) interfering with a FSS (Region 2)

Considering a minimum geographic separation between service areas in Region 1 and Region 2 of 4.8 degrees, for BSS (Region 1) beamwidth of between 1.6 and 5 degrees, gives an isolation at the BSS satellite antenna of approximately 25 dB. The maximum interfering pfd from a BSS (Region 1) into a FSS earth station (Region 2) would therefore be $-123\ dBW/m^2$. This value is plotted in Figure 1 as curve B.

ARCHIVES U.I.T. GENÈVE

4. Isolation due to polarization

Assuming that the FSS in Region 2 will use linear polarization and the BSS in Region 1 uses circular polarization, a maximum isolation of 3 dB can be achieved. For this example, the maximum interfering pfd from a BSS (Region 1) into an FSS earth station (Region 2), accounting for polarization isolation is therefore -126 dBW/m^2.

5. Maximum interfering PFD from a BSS (Region 1) into a FSS (Region 2)

Three lines are plotted for the interfering pfd from a BSS (Region 1) as follows :

A) -119 dBW/m^2 corresponding to the example presented in Document 7 Addendum 3.

B) -123 dBW/m^2 corresponding to the example of Section 3.

C) -126 dBW/m^2 corresponding to the same example as B) above with 3 dB polarization isolation assumed.

In each case 25 dB is assumed for BSS satellite isolation corresponding to a service area separation of 4.8 degrees.

6. FSS (Region 2) maximum acceptable interference

Figure 1 gives a parametric presentation of 6 types of FSS systems in terms of maximum acceptable interference ($pfd_{M.A.I}$) as angular separation between the BSS and FSS satellites. The curves are labelled a. through h. and are derived as follows :

- Curve c. is derived for an FSS digital link with the following assumptions :

$\frac{C}{I}$ = 35 dB

$T = 200^{o}K$

G_{ON} = 53 dB

$G(0) = 32 - 25\log\phi \leq 1^{o} \leq 48^{o}$

$\frac{E_b}{N_o}$ = 15 dB

DATA RATE = 10 Mbit

$PFD_{M.A.I} = -145 + 25\log\phi$ dBW/m^2 $1^{o} \leq \phi \leq 48^{o}$

- Curve e. is derived from c. assuming a 10 dB increase in $\frac{C}{I}$ for a decrease of 10 dB in data rate.

- Curve f. is assumed to be representative of SCPC on a 56 kbit data link. Curve f. is derived from curve c. with the following changes :

  $\frac{C}{I}$ is reduced by approximately 5 dB

  $\frac{E_b}{N_o}$ is increased by approximately 5 dB

  Energy dispersal factor added of 3.6 dB (Document DL/10)

  Bit rate decreases by approximately 23 dB

  Net change is approximately 10 dB

- Curve d. is the example presented in Document 7, Addendum 3.

- Curve a. is derived from curve c. assuming a net decrease of 4 dB. This value is obtained from the difference between a 10 dB reduction in $\frac{C}{I}$ due to the 10 dB increase in data rate and a 6 dB factor due to the increased bandwidth.

- Curve b. represents a reduction in $\frac{C}{I}$ from 39 to 35 and is derived from curve d.

- Curve d. is derived from a value of -131 dBW/m^2 for the wanted FSS pfd at the service area edge. The value -131 dBW/m^2 is derived as follows :

  $e.i.r.p._{MAIN\ BEAM}$ = 38 dBW

  With spreading loss of -163 dBW/m^2 and a 4 dB ratio between beam centre and service area edge leads to a value of -129 dBW/m^2. Finally, incorporating a 2 dB factor for antenna pointing losses and satellite motion leads to the value -131 dBW/m^2 as indicated above.

7. Use of Figure 1

To illustrate the use of Figure 1, two examples are given of the required separation between a BSS (Region 1) satellite and an FSS (Region 2) satellite.

Example 1 :

The intersection of curve a. and curve d. indicate a required satellite separation of 16 degrees as shown in Figure 1. This is the case presented in Document 7, Addendum 3.

Example 2 :

The intersection of curve c. and curve b. indicate a required satellite separation of approximately 6 degrees as shown in Figure 1. This example reflects the changes made at the last meeting of Working Group 4B2.

PARAMETRIC PRESENTATION OF INTERREGIONAL SHARING - REQUIRED ORBITAL SEPARATION

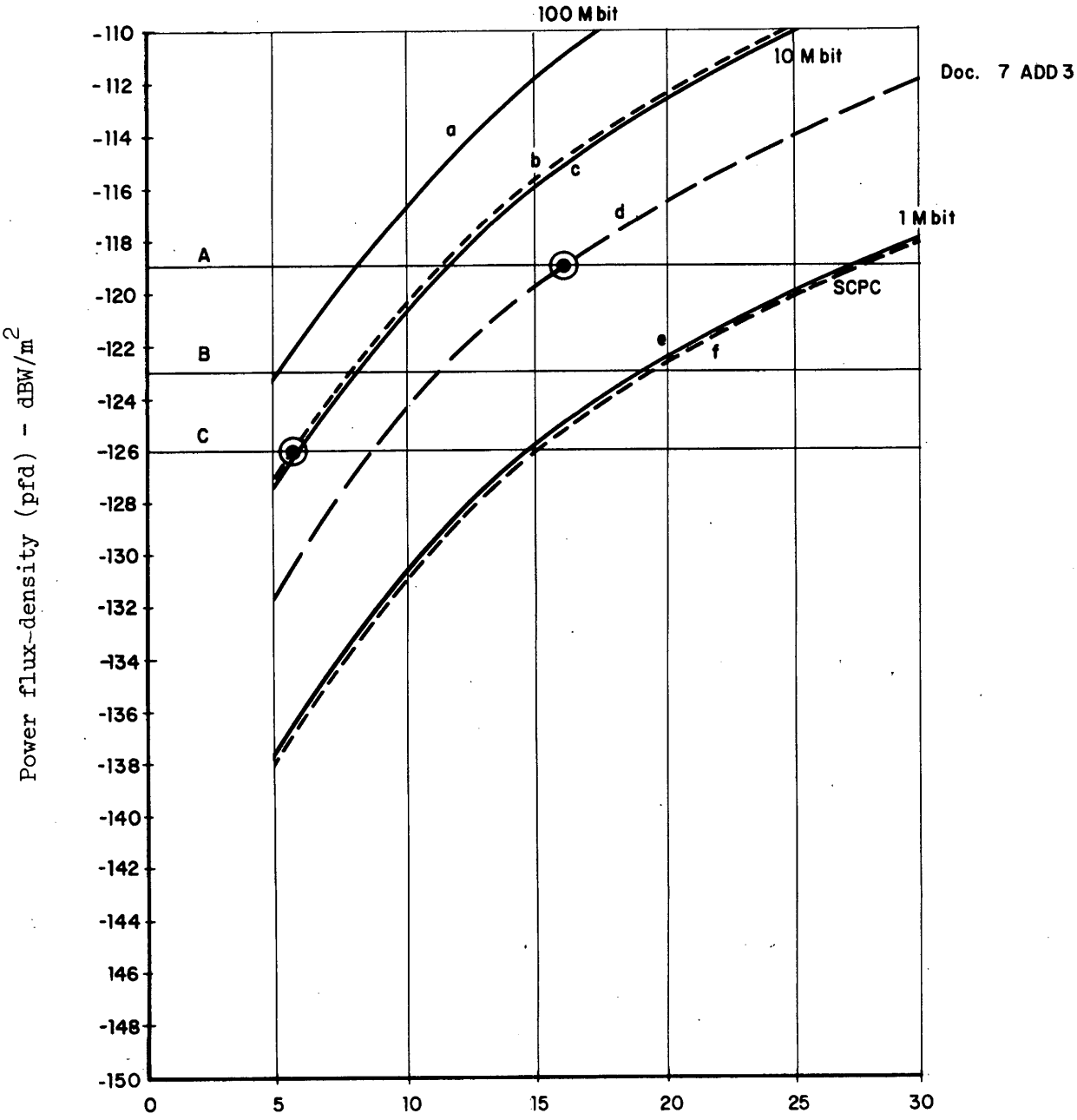


Figure 1 - Angular separation in degrees between a Fixed Satellite and a Broadcasting Satellite operating on the same frequency

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/29-E
24 January 1977
Original : English

WORKING GROUP 5A

Working Group 5A

COUNTRIES TO BE CONSIDERED AS TROPICAL COUNTRIES FOR THE PURPOSE OF DETERMINING THE MOST WESTERLY ORBIT LIMIT

The attached Document is the most recent information given to the Chairman of Committee 4, following publication of Document No. DT/16. It is circulated to Working Group 5A for their consideration before being given to the Sub-Working Groups.

Annex : 1

ARCHIVES U.I.T. GENÈVE

A N N E X E 1 - A N N E X 1 - A N E X O 1

(Rev.1)*)

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
ADL	-	BHR	5	CPV	-
AFG	5	BIO	-	CRO	-
AFI	5	BLR	2	CTI	1
AFS	1 5	*)		CTR	1
				CUB	1
AGL	1	BOT	1 5	CVA	4
ALB	4			CYP	4
*)		BRB	1	D	3
ALS	2	BRM	1	DAH (BENIN)	1
AMS	-	BRU	1		
AND	3	BUL	4	DDR	3
AOE	5	*)		*)	
ARG	5	CAN	2 5	DOM	1
ARS	5	CAR	-	E	4
ASC	-	CBG	1	EGY	5
ASO	1 5	*)		EQA	1
ATN	1	*)		ETH	1 5
*)				F	3
		CHR	-	FJI	-
		CKH	1	FLK	-
AUT	3	CKN	1	FNL	2
AZR	3	CLM	1	G	3
B	1	CLN	1	GAB	1
BAH	1	CME	1	GDL	1
BDI	1	CNR	5	GHA	1
BEL	3	COG	1	GIB	4
BER	1	COM	1	GIL	-
BGD	1				

*) voir information complémentaire
*) see additional information
*) véase información complementaria

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
GMB	1	IWA	-	MLT	4
GNE	1	J	2	MNG	5
GNP	1	JAR	-	MOZ	1
GRC	4	JMC	1	MRA	-
GRL	2	JON	-	MRC	4 5
GTM	1	JOR	5	MRL	-
GUB	1	KEN	1	MRN	-
GUF	1	KER	-	MRT	1
GUI	1	KOR	2	MTN	5
GUM	-	KRE	2	MWI	1
HNB	1	KWT	5	MYT	1
HND	1	LAO	1	NCG	1
HNG	4	LBN	5	NCL	1
HOL	3	LBR	1	NGR	1
HTI	1	LBY	5	NHB	3
HVO	1	LIE	3	NIG	1
HWA	-	LSO	1	NIU	1
HWL	-	LUX	3	*)	
I	4	MAC	1	NPL	1
ICO	-	MAU	1	NRU	-
IND	1	MCO	4	NZL	3
INP	1	MCS	-	OCE	1
INS	1	MDG	1	OMA	5
IOB	1	MDR	5	*)	
IRL	3	MDW	-	PAQ	5
IRN	5	*)		PHL	1
IRQ	5	MLA	1	PHX	-
ISL	3	MLD	1	PLM	-
ISR	5	MLI	1 5	PNG	1

*) voir information complémentaire
*) see additional information
*) véase información complementaria

Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica	Symboles de pays Country symbol Símbolo del país	Zone (S) Rain-climatic zone Zona hidrometereológica
PNR	1	SRL	1	VIR	-
PNZ	1	STP	1	VTN	1
POL	3	SUI	3	WAK	-
POR	3	SUR	1	WAL	1
PRG	1	SWN	-	YEM	5
PRU	1 5	SWZ	1	YMS	5
PTC	-	SYR	5	YUG	1
PTR	1	TCD	1, 5	ZAI	1
QAT	5	TCH	3	ZAN	1
REU	1	TGK	1	ZMB	1
RHS	1	TGO	1		
ROD	-	THA	1		
ROU	3	TKL	1		
RRW	1	TMP	1		
RYU	2	TON	-		
S	2	TRC	-		
*)		TRD	1		
SEN	1 5	TUN	4		
SEY	-	TUR	4		
SHN	-	TUV	-		
SLM	-	UAE	5		
SLV	1	UGA	1		
SMA	-	UKR	2		
SMO	1	URG	1		
SMR	4	URS	2 5		
SNG	1	USA	1 2 3 4		
SOM	5		5		
SPM	2	VEN	1		

*) voir information complémentaire
*) see additional information
*) véase información complementaria

Appendice
Appendix
Apéndice

Zones (S)

Rain-climatic zones

Zonas hidrometereológicas

Pays Country País	IFRB No.	Zone Zona	Pays Country País	IFRB No.	Zone Zona
ALG	0250	4	CHN	0168	2
	0251	4	(cont.)	0169	1
	0252	5		0170	1
				0171	1
AUS	0004	4		0172	1
	0005	1		0173	1
	0006	5		0174	1
	0007	4		0175	1
	0008	1		0176	2
	0009	1		0177	1
	0010	4		0178	1
	0011	1		0179	1
	0012	5		0180	1
	0013	4		0181	1
	0014	1		0182	2
	0015	1		0183	5
				0184	5
BOL	0019	1		0185	5
	0273	5		0186	1
				0187	1
CAF	0258	1		0188	1
CHL	0208	5	DNK	0090	2
	0263	2		0091	3
	0264	2			
	0265	3	MEX	0190	3
				0191	1
CHN	0154	5			
	0155	5	NOR	0120	3
	0156	5		0121	2
	0157	1			
	0158	2	PAK	0127	2
	0159	1		0210	3
	0160	2		0281	5
	0161	1		0282	4
	0162	1		0283	2
	0163	2			
	0164	2	SDN	0230	1
	0165	5		0231	3, 4
	0166	2		0232	5
	0167	2			

Renseignements encore attendus

Information still required to be furnished

Información que aún debe proporcionarse

AFS	0021	
	0022	
	0023	
	0024	
BOT	0603	
ETH	0092	
FJI	0193	
NRU	0615	
URS	0059	
	0060	
	0061	
	0064	
	0065	
	0066	
	0067	
	0068	
	0069	
	0070	
	0071	
	0072	
	0073	
	0074	
	0075	
	0076	
	0077	
	0078	
	0079	
	0080	
	0081	

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/30-E
24 January 1977
Original : English

WORKING GROUP 5A

Working Group 5A

COUNTRIES TO BE CONSIDERED AS MOUNTAINOUS
FOR THE PURPOSE OF DETERMINING THE MOST
WESTERLY ORBIT LIMIT

In accordance with the guidelines agreed in Working Group 5A as presented in Document DL/15 (as modified by the meeting), the following countries have asked to be considered as mountainous countries for the purpose of determining the most westerly orbital limit

IRAN

AUSTRIA

GERMANY (FR)

SWITZERLAND

SPAIN (AND CANARY ISLANDS)

TURKEY

ITALY

CHINA (0155 0157 0159 0161 0162 0169 0172 0174 0175 0177 0181 0186 0187 0188)

Any country which has been omitted should communicate the necessary information to the Chairman of Working Group 5A (Box 86) before 6 pm Tuesday, 25 January. This note does not of course affect tropical countries listed in Document DT/16 or high latitude countries (greater than 60° latitude).

S.R. TEMPLE
Chairman of WG 5A

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/31-E
24 January 1977
Original : English

WORKING GROUP 5A

PROPOSALS TO WORKING GROUP 5A ON THE WORKING OF THE CONCILIATION GROUP

A. General

A Conciliation Group has been set up consisting of the Chairman of Committee 5, the Vice-Chairman of Committee 5, the Chairman of Working Group 5 together with his assistant from the African Group Mr. Harbi and the Asian Group Mr. Arasteh and the Chairmen of the Sub-Working Groups where appropriate and presided over by the Special Vice-Chairman. The task of the Group is to seek, in agreement with the administrations concerned, all possible means of solving difficult cases which the planning groups are liable to encounter. The Group will also give due consideration to the situation of the countries which are not represented at the Conference and will seek, with the assistance of the IFRB, solutions to any problems affecting these countries.

B. Problems arising in the Sub-Groups in the construction of the Plan

1. The problem will be communicated by the Sub-Group Chairman to the Chairman of Working Group 5A together with the necessary technical explanations.

2. The Conciliation Group would meet daily and one member of the Conciliation Group would undertake the task.

3. A Note will be put in the special box of the delegation(s) concerned outlining the problem and proposing an initial meeting of administrations concerned or affected.

4. An initial meeting would be established quickly with administrations concerned or affected and one member of the Conciliation Group, together with the Chairman of the Sub-Group, where the problem was encountered.

5. The administrations would be able to take advantage of the Conciliation Group or solve the problems by direct discussions but the resulting solutions should be communicated in writing, using forms supplied by the IFRB, to the Chairman of Working Group 5A (Box 86). The forms would need to be signed by the delegations concerned.

6. The Chairman of Working Group 5A would advise the Sub-Group Chairman as appropriate problems brought up by delegations.

C. Problems raised by delegations

1. Problems brought up by delegations should be addressed to the Chairman of Working Group 5A (Box 86) where it will be brought to the attention of the Conciliation Group and if appropriate, the administrations concerned or affected.

ARCHIVES U.I.T. GENÈVE

2. Solutions would be written on the appropriate IFRB forms together with signatures.

3. The Chairman of Working Group 5A would advise the Sub-Group Chairmen where appropriate.

Mr. FEDAMI
Mr. PETTI
Mr. TEMPLE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/32-E
28 January 1977
Original: English

SUB-WORKING GROUP 6A1

I/11/14

/ Article 4 /

PROCEDURE FOR MODIFICATIONS TO THE /PLAN/

4.1 When a / Contracting Member / / Administration / intends to make a modification to the / Plan /, i.e. either

- to change the characteristics of any of its frequency assignments * to a space station in the Broadcasting-Satellite Service shown in the / Plan /, or for which the procedures in this / Article / have been successfully applied, whether or not the station has been brought into use, or

- /to include in the / Plan / a new frequency assignment to a space station in its Broadcasting-Satellite Service, / or

- to cancel a frequency assignment to a space station in its Broadcasting-Satellite Service,

the following procedure shall be applied before any notification of the frequency assignment is made to the International Frequency Registration Board (see / Article 5 / of this / Agreement /).

4.2 In the remainder of the present / Article /, the term "frequency assignment in accordance with the / Agreement /" means any frequency assignment appearing in the / Plan / or for which the procedure of this / Article / has been successfully applied.

I/11/15 4.3 Proposed changes to a frequency assignment in accordance with the / Agreement / / or the inclusion in the / Plan / of a new frequency assignment /

4.3.1 Any Administration proposing a change in the characteristics of a frequency assignment in accordance with the / Agreement / or / the inclusion of a new frequency assignment in the / Plan / / shall seek the agreement of those Administrations:

- having a frequency assignment to a space station in the Broadcasting-Satellite Service in the same channel or an adjacent channel in accordance with the / Plan /, or in respect of which, modifications to the / Plan / have been published by the Board in accordance with the provision of this / Article /; or

---

/* The expression "frequency assignment" wherever it appears in this / Article /, shall be understood to refer to a frequency assignment appearing in the / Plan / and shall be understood to be associated with a given orbital position. /

ARCHIVES U.I.T. GENÈVE

- having no frequency assignment for the Broadcasting-Satellite Service in the channel concerned but having or intending to have terrestrial services in the frequency band 11.7 - 12.5 GHz in Region 1 and 11.7 - 12.2 GHz in Regions 2 and 3; or

- having a frequency assignment in the band 11.7 - 12.2 GHz to a space station in the Fixed-Satellite Service recorded in the Master Register or for which the information prescribed in No. 639AL* of the Radio Regulations (Geneva, 1976) has been published;

which are considered to be affected. A frequency assignment is considered to be affected when the limits shown in / Appendix A / are exceeded.

4.3.2 An Administration intending to make a modification to the / Plan / shall send to the Board the relevant information listed in / Appendix B /.

4.3.2.1 Where as a result of the intended modification the limits defined in / Appendix A / are not exceeded, this fact shall be indicated when submitting to the Board the information required by 4.3.2. The Board shall then publish this information in a special section of its weekly circular.

4.3.2.2 In all other cases the Administration shall notify the Board of the names of the Administrations whose agreement it considers should be sought in order to arrive at the agreement in 4.3.1 as well as of those with whom agreement has already been reached.

4.3.3 The Board shall determine on the basis of / Appendix A / the Administrations whose frequency assignments are considered to be affected within the meaning of 4.3.1. The Board shall include the names of those Administrations with the information received under 4.3.2.2 and shall publish the complete information in a special section of its weekly circular. The results of these calculations shall be sent immediately by the Board to the Administration proposing the modification to the / Plan /.

4.3.4 The Board shall send a telegram to the Administrations listed in the special section of the weekly circular drawing their attention to the information it contains and shall also send them the results of its calculations.

4.3.5 Any Administration which considers that it should have been included in the list of Administrations considered to be affected may, giving the technical basis for so doing, request the Board to include its name. The Board shall study this request on the basis of /Appendix A / and, where appropriate, add the name of the Administration to the list and in any case send a copy of the request with an appropriate recommendation to the Administration proposing the modification to the / Plan /.

/4.3.6 Any intended change in a frequency assignment in accordance with the / Agreement / or / inclusion in the / Plan /of a new frequency assignment/ that would degrade the protection of the services concerned in 4.3.1 beyond the limits set in / Appendix A / must be subject to the agreement of all affected Administrations. /

---

*. or the corresponding number of the Radio Regulations currently in force.

Note: Appendix A contains the p.f.d limits
Appendix B lists the basic characteristics of the frequency assignments.

4.3.7 Either the Administration seeking agreement, or the Administration with which agreement is sought, may request any additional information it considers necessary. The Board shall be informed of such requests.

4.3.8 Comments from Administrations on the information published pursuant to 4.3.3 should be sent either directly to the Administration proposing the modification or through the Board. In any event the Board shall be informed that comments have been made.

4.3.9 An Administration which has not notified its comments either to the Administration seeking agreement or to the Board within a period of / 120 days / / 150 days / following the date of the weekly circular referred to in 4.3.2.1 or 4.3.3 shall be understood to have agreed to the proposed change. This time limit may be extended by / 60 days / / 80 days / in the case of an Administration which has requested additional information in response to 4.3.7 or of an Administration which has requested the assistance of the Board in conformity with 4.3.15. In the latter case the Board shall inform the Administrations concerned of this request.

4.3.10 If in seeking agreement an Administration makes changes in its initial proposal, it shall again apply the provisions of 4.3.2 and the consequent procedure with respect to any other Administration whose services might be affected due to changes made to the initial proposal.

4.3.11 If no comments have been received on expiry of the periods specified in 4.3.9 or if agreement has been reached with the Administrations which have made comments and with which agreement is necessary, the Administration proposing the modification may continue with the appropriate procedure and shall inform the Board indicating the final characteristics of the frequency assignment together with the names the Administrations with which agreement has been reached.

/4.3.12 When the proposed modification to the/Plan/involves developing countries Administrations shall seek all practicable solutions conducive to economical development of the broadcasting-satellite system of these countries./

4.3.13 The Board shall publish in a special section of its weekly circular the information received under 4.3.11 together with the names of any Administrations with which the provisions of this / Article / have been successfully applied. The frequency assignment concerned shall enjoy the same status as those appearing in the / Plan / and will be considered as a frequency assignment in accordance with the / Agreement /.

J/18/40 4.3.13bis When an Administration proposing to change the characteristics of a frequency assignment or to make a new frequency assignment receives notice of disagreement from an Administration whose agreement it has sought, it should first endeavour to solve the problem by exploring all possible means of meeting its requirement. If the problem still cannot be solved by such means, the Administration whose agreement has been sought should endeavour to overcome the difficulties as far as possible, and should state the technical reasons for any disagreement if the Administration seeking the agreement requests it to do so.

4.3.14 If no agreement is reached between the Administrations concerned, the Board shall make any study that may be requested by these Administrations; the Board shall inform them of the result of the study and shall make such recommendations it may be able to offer for the solution of the problem.

4.3.15 Any Administration may at any stage in the procedure described, or before applying it, request the assistance of the Board particularly in seeking the agreement of another administration.

/ 4.3.16 If after application of the procedure described in this / Article / the Administrations concerned have been unable to reach agreement, they may resort to the procedure described in Article 50 of the Convention. Administrations may also agree to apply the Optional Additional Protocol to the Convention. /

4.3.17 The relevant provisions of / Article 5 / of this / Agreement / shall be applied when frequency assignments are notified to the Board.

I/11/16 4.4 Cancellation of frequency assignments

When a frequency assignment in accordance with the / Agreement / is released, whether or not as a result of a modification, the Administration concerned shall immediately so inform the Board. The Board shall publish this information in a special section of its weekly circular.

I/11/17 4.5 Master copy of the / Plan /

4.5.1 The Board shall maintain an up-to-date master copy of the / Plan / taking account of the application of the procedure specified in this / Article / The Board shall prepare a document listing the amendments to be made to the / Plan / as a result of modifications made in accordance with the procedure in this / Article /.

4.5.2 The Secretary-General shall be informed by the Board of modifications made to the / Plan / and shall publish an up-to-date version of the / Plan / in an appropriate form as and when the circumstances justify / and in any case every three years /.

I/11/18

/ Article 5 /

NOTIFICATION, EXAMINATION AND RECORDING IN THE MASTER REGISTER OF FREQUENCY ASSIGNMENTS TO SPACE STATIONS IN THE BROADCASTING-SATELLITE SERVICE

5.1 Notification

5.1.1 Whenever an Administration intends to bring into use a frequency assignment to a space station in the Broadcasting-Satellite Service it shall notify this frequency assignment to the Board. The notifying Administration shall apply for this purpose the following provisions.

5.1.2 For any notification under 5.1.1, an individual notice for each frequency assignment shall be drawn up as prescribed in /Appendix 1A,/ the various Sections of which specify the basic characteristics to be furnished according to the case. It is recommended that the notifying administration should also supply the additional data called for in /Section A of that Appendix,/ together with such further data as it may consider appropriate.

5.1.3 Each notice must reach the Board not earlier than three years before the date on which the assignment is to be brought into use. The notice must reach the Board in any case not later than ninety days [1] before this date.

5.1.4 Any frequency assignment, the notice of which reaches the Board after the applicable period specified in 5.1.3, shall, where it is to be recorded, bear a ~~mark~~ /remark in the Master Register to indicate that it is not in conformity with 5.1.3.

5.1.5 Any notice made under 5.1.1 which does not contain the characteristics specified in / Appendix 1A [3] / shall be returned by the Board immediately by airmail to the notifying Administration with the reasons therefore.

5.1.3.1 [1] The notifying administration shall take this limit into account when deciding, where appropriate, to initiate the co-ordination procedure(s).

Note: Appendix 1A in paragraph 5.1.2 corresponds with /Appendix B/ in / Article 4 / paragraph 4.3.2.

3) These characteristics and the / Appendix / are to be established by the Conference.

5.1.6 **Upon receipt of a complete notice, the Board shall include the particulars thereof, with the date of receipt, in the weekly circular referred to in No. 497/° which shall contain the particulars of all such notices received since the publication of the previous circular.** /°of the Radio Regulations*

5.1.7 **The circular shall constitute the acknowledgement to the notifying administration of the receipt of a complete notice.**

5.1.8 **Complete notices shall be considered by the Board in the order of their receipt. The Board shall not postpone the formulation of a finding unless it lacks sufficient data to render a decision in connection therewith; moreover, the Board shall not act upon any notice which has a technical bearing on an earlier notice still under consideration by the Board, until it has reached a finding with respect to such earlier notice.**

I/11/19 5.2 Examination and recording

5.2.1 The Board shall examine each notice:

a) with respect to its conformity with the Convention and the relevant provisions of the Radio Regulations and / Appendix .. /[1] (with the exception of those relating to conformity with the / Plan /);

b) with respect to its conformity with the / Plan /.

5.2.2 Where the Board reaches a favourable finding with respect to 5.2.1, the frequency assignment of / a Contracting Member / / Administration / shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d of the Master Register. In relations between / Contracting Members / / Administrations / all frequency assignments brought into use in conformity with the / Agreement / and recorded in the Master Register shall be considered to have the same status irrespective of the dates entered in Column 2d for such frequency assignments.

5.2.3 Where the Board reaches an unfavourable finding with respect to paragraph 5.2.1, the notice shall be returned immediately by airmail to the notifying Administration with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to a satisfactory solution of the problem.

---

* or the corresponding number of the Radio Regulations currently into force.

1) This /Appendix/ relates to the sharing criteria

5.2.4 Where the notifying Administration resubmits the notice and the Finding of the Board becomes favorable with respect to 5.2.1, the notice shall be treated as in 5.2.2.

/ 5.2.5 If the notifying Administration resubmits the notice without modification and insists that the notice should be reconsidered, if the Board's Finding with respect to 5.2.1 remains unfavourable, the notification should be returned to the notifying Administration in accordance with 5.2.3. /

/ 5.2.5 If the notiying Administration resubmits the notice without modification and insists that the notice should be reconsidered, if the Board's Finding with respect to 5.2.1 remains unfavourable, the frequency assignment is recorded in the Master Register on the understanding that the notifying Administration has undertaken upon receipt of advice of harmful interference to eliminate this harmful interference. The recording will bear a remark in the Master Register to indicate that is recorded for information purposes only. /

5.2.6 If the use of a frequency assignment not in conformity with the / Agreement / causes harmful interference to the reception of the emissions effectuated by a space station in the Broadcasting-Satellite Service using a frequency assignment in conformity with the / Agreement /, or to stations of other countries which are, in conformity with this / Agreement /, recorded in the Master Register, the Administration having jurisdiction over the interfering station on being advised accordingly shall take immediate measures to eliminate the interference.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/33-E
27 January 1977
Original: English

WORKING GROUP 6D

NOTE FROM THE CHAIRMAN OF WORKING GROUP 6D

(See Document DL/29)

Ad Hoc Group	Convenor		Box No.	Room
6D1/6D4	Mr. Rajasingam	(SNG)	234	IX
6D2	Mr. Svensson	(FNL)	197	X
6D3	Mrs. Calov	(DDR)	1031	D.350
6D5	Mr. Benacer	(ALG)	286	T.7*
6D6	Mr. Schult	(D)	150	D.351
6D7/6D8	Mr. de Zwart	(HOL)	211	D.359

First** working session: Friday, 28 January 1977, 14 h 00 - 17 h 00.

H.K. de Zwart
Chairman, Working Group 6D

---

* First floor, ITU Tower

** Further meetings to be arranged by each convenor.

ARCHIVES U.I.T. GENÈVE

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/34-F/E/S
31 janvier 1977

GROUPE DE TRAVAIL 5A

Note du Président du Groupe de travail 5A

ANALYSE DE L'EXERCICE DE PLANIFICATION DU SOUS-GROUPE DE TRAVAIL 5A2

	Page
Note	ii
Explication des colonnes	2
Données de sortie résumées	3 - 47

WORKING GROUP 5A

Note by the Chairman of Working Group 5A

ANALYSIS OF THE PLANNING EXERCISE FROM SUB-GROUP 5A2

	Page
Note	iii
Explanation of the Columns	2
Summary output	3 - 47

GRUPO DE TRABAJO 5A

Nota del Presidente del Grupo de trabajo 5A

ANÁLSIS DEL EJERCICIO DE PLANIFICACIÓN EFECTUADO POR EL SUBGRUPO 5A2

	Page
Nota	iv
Explicación de las columnas	2
Resumen de los resultados	3 - 47

ARCHIVES U.I.T. GENÈVE

GROUPE DE TRAVAIL 5A

Note du Président du Groupe de travail 5A

ANALYSE DE L'EXERCICE DE PLANIFICATION DU SOUS-GROUPE DE TRAVAIL 5A2

1. Les délégations ont déjà reçu le Document N° DT/37, qui contient une analyse résumée TDF. Ainsi qu'on l'a annoncé au sein du Groupe de travail 5A, celle-ci devait être suivie d'une analyse résumée de l'IFRB ainsi que d'une analyse plus détaillée.

2. L'exemple de plan pour les Régions 1 et 3 annexé au présent document a été établi par le Sous-Groupe de travail 5A2, en application du mandat approuvé par le Groupe de travail 5A. Les programmes d'analyse de l'IFRB ont été appliqués sur la base des informations communiquées par le Sous-Groupe de travail 5A2. Les trois points de repère utilisés pour chaque faisceau sont le premier, le troisième et le cinquième de la série de six points de repère indiquée pour chaque faisceau dans le Document N° 149.

3. Les données de sortie résumées (décrites au paragraphe 5.1 de l'Annexe 2 au Document N° 27) sont jointes au présent document. On trouvera ci-après l'explication des différentes colonnes.

4. La présente analyse s'écarte de l'anaylse TDF pour les raisons suivantes :

a) les données d'entrée ont été remises à TDF et à l'IFRB à des moments différents, ce qui a donné aux experts le temps d'apporter de légères modifications au Plan exemple;

b) le programme de l'IFRB n'a pas utilisé d'éllipses calculées à nouveau pour les nouvelles positions orbitales;

c) les points de référence utilisés dans le programme TDF correspondent aux polygones de la zone de service alors que le programme de l'IFRB utilise trois des six points de repère indiqués par les délégations (afin d'abréger le passage à l'ordinateur).

Ainsi, il importe que les délégations qui désirent comparer les résultats de notre groupe de travail avec ceux du deuxième plan établi par l'autre Groupe de travail le fassent sur la base d'analyses provenant du même ordinateur.

5. Toutes les délégations pourront obtenir les données de sortie détaillées (paragraphe 5.1 b) de l'Annexe 2 au Document N° 27), contre signature, en s'adressant à un comptoir spécial situé à côté du Service de distribution des documents, à une date qui sera indiquée ultérieurement.

S.R. TEMPLE
Président du Groupe de travail 5A

WORKING GROUP 5A

Note by the Chairman of Working Group 5A

ANALYSIS OF THE PLANNING EXERCISE FROM SUB-GROUP 5A2

1. Delegations have already received Document No. DT/37 containing the TDF summary analysis. As announced in Working Group 5A, this was to be followed by an I.F.R.B. summary analysis and a more detailed analysis.

2. The attached example of a Regions 1 and 3 Plan has been produced by Sub-Working Group 5A2 under the terms of reference approved by Working Group 5A. On the basis of information received from Working Group 5A2, the I.F.R.B. analysis programmes have been applied. The three test points used for each beam are the first, third and fifth of the series of six test points shown for each beam in Document No. 149.

3. The Summary Output (described in Annex 2 to Document No. 27, para. 5.1) is attached. The explanation of the columns appears hereafter.

4. The present analysis differs from the TDF analysis for the following reasons:

a) the input data were given to the TDF and the I.F.R.B. at different points in time and this permitted the experts to make some slight changes in the example Plan;

b) the I.F.R.B. programme has not used elipses re-calculated for the new orbit positions;

c) the test points used in the TDF programme correspond to the service area polygon whereas the I.F.R.B. programme has used 3 (to shorten the computer running time) from the 6 test points given by Delegations.

Thus it is important that Delegations wishing to compare the results from this Working Group with the results of the second Plan produced by the other Working Group should do so on the basis of the analysis by the same computer.

5. The detailed output (Annex 2 to Document No. 27, para. 5.1 b)) may be collected by each Delegation, against signautre, from a special desk located next to the Document Distribution Service at a time to be announced.

S.R. TEMPLE
Chairman
Working Group 5A

GRUPO DE TRABAJO 5A

Nota del Presidente del Grupo de trabajo 5A

ANÁLISIS DEL EJERCICIO DE PLANIFICACIÓN EFECTUADO POR EL SUBGRUPO DE TRABAJO 5A2

1. Las delegaciones ya han recibido el Documento N.° DT/37 que contiene el análisis sumario por el computador TDF. Como ha anunciado el Grupo de trabajo 5A, a éste siguió un análisis sumario de la IFRB, así como uno más detallado.

2. El ejemplo adjunto de un plan para las Regiones 1 y 3 ha sido elaborado por el Subgrupo de trabajo 5A2 de acuerdo con el mandato aprobado por el Grupo de trabajo 5A. En base de la información recibida del mencionado Subgrupo de trabajo se han aplicado los programas de análisis de la IFRB. Los tres puntos de prueba utilizados para cada haz son el primero, el tercero y el quinto de la serie de seis puntos de prueba indicados para cada haz en el Documento N.° 149.

3. Se acompaña el Resumen de los resultados (contenido en el Anexo 2 al Documento N.° 27, punto 5.1). La explicación de las columnas se da a continuación.

4. El presente análisis difiere del análisis TDF por las razones siguientes:

a) los datos de entrada se introdujeron en los programas de TDF y de la IFRB en diferentes momentos, lo que permitió a los expertos efectuar algunas modificaciones en el plan del ejemplo;

b) el programa de la IFRB no ha utilizado elipses calculadas de nuevo para las nuevas posiciones orbitales;

c) los puntos de prueba utilizados en el programa de TDF corresponden al polígono de la zona de servicio, mientras que, para reducir el tiempo de pasada del computador, en el programa de la IFRB se han utilizado tres de los seis puntos de prueba indicados por las delegaciones.

Por tanto, es importante que las delegaciones que deseen comparar los resultados obtenidos por este Grupo de trabajo con los resultados del segundo plan elaborado por el otro Grupo de trabajo, lo hagan sobre la base del análisis por el mismo computador.

5. Cada delegación podrá obtener el detalle de los resultados (Anexo 2 al Documento N.° 27, punto 5.1.b)), contra recibo firmado, en una mesa especial situada cerca del Servicio de distribución de documentos, en fecha que oportunamente se anunciará.

El Presidente del Grupo de trabajo 5A

S.R. TEMPLE

Explication des colonnes

Les numéros des colonnes entre parenthèses carrées correspondent aux numéros des colonnes dans la Liste des demandes.

Col.

1 - Symbole désignant le pays et numéro de référence de l'I.F.R.B. [Col. 3, 1]

2 - Longitude nominale [Col. 7]

3 - Numéro du canal

4 - Coordonnées géographiques du point de visée [Col. 8] mais en degrés et dixièmes de degrés

5 - Ouverture du faisceau d'antenne. Dans le cas d'une antenne elliptique, la colonne comporte deux valeurs représentant respectivement le grand axe et le petit axe de l'allipse [Col. 10, 11]

6 - Orientation de l'ellipse (conformément à la définition donnée dans la lettre-circulaire de l'I.F.R.B. N° 358) [Col. 12]

7 - Gain maximal

8 - Polarisation

9 - 9a Puissance en watt
9b P.i.r.e. en dBW

10 - Coordonnées géographiques du point de contrôle critique pour lequel est indiquée la valeur de la marge de protection

11 - Marge équivalente de protection

12, 13, 14 - Indications relatives aux trois principaux brouilleurs. Chaque colonne contient l'indication du brouilleur (symbole désignant le pays et numéro de série) et la marge de protection qui lui correspond en dB.

Explanation of the Columns

Column numbers shown between square brackets are those of the corresponding columns in the List of Requirements

Col.

1 - Country symbol and I.F.R.B. Serial Number [Cols. 3, 1]

2 - Nominal longitude [Col. 7]

3 - Channel number

4 - Boresight geographical coordinates [Col. 8] but in degrees and tenths

5 - Antenna aperture. For an elliptical antenna this column contains two figures corresponding respectively to the major axis and the minor axis [Cols. 10, 11]

6 - Orientation of the ellipse, as defined in I.F.R.B. Circular-letter No. 358 [Col. 12]

7 - Maximal gain

8 - Polarisation

9 - 9a Power in watts
9b E.i.r.p. in dBW

10 - Geographical coordinates of the critical test point for which the protection margin is indicated

11 - Equivalent protection margin

12, 13, 14 - Indication of the three main interferers; each of these three columns indicates the designation of the interferer (country symbol and serial number) and the corresponding protection margin in dB.

Explicación de las columnas

Los números de las columnas entre corchetes corresponden a los números de las columnas en la Lista de solicitudes.

Col.

1 - Símbolo de país y número de referencia de la I.F.R.B. [Col. 3, 1]

2 - Longitud nominal [Col. 7]

3 - Número del canal

4 - Coordenadas geográficas del centro de puntería [Col. 8] pero en grados y décimas

5 - Abertura del haz de antena. Si se trata de una antena elíptica se indican en la columna dos valores que representan los ejes mayor y menor, respectivamente de la elipse [Col. 10, 11]

6 - Orientación de la elipse (véase la carta circular N.° 358 de la I.F.R.B.) [Col. 12]

7 - Ganancia máxima

8 - Polarización

9 - 9a Potencia en vatios
9b P.i.r.e. en dBW

10 - Coordenadas geográficas del punto de prueba crítico para el que se indica el valor del margen de protección

11 - Margen de protección equivalente

12, 13, 14 - Indicaciones relativas a las tres fuentes principales de interferencia. En cada columna se indica la fuente de interferencia (símbolo de país y número de referencia) y el margen de protección que le corresponde en dB.

Canal 1 - Channel 1 - Canal 1

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
1	OCE0101A	-160.0	1	-144.3	-16.0	3.9	3.3	176.	33.2	2	998.	63.2	-153.0	-23.0	19.	*CKH0052	22.	*NZL0055	24.	*AUS0316	28.
2	GUI0192A	-34.0	1	-11.1	10.1	1.4	1.0	141.	42.8	1	112.	63.3	-14.5	11.5	7.	*CPV0301	8.	*I 0056	16.	*TUN0272	17.
3	DAH0233A	-28.0	1	2.1	9.1	1.1	0.6	87.	45.6	2	60.	63.4	1.0	10.4	1.	*IRL0211	4.	*I 0056	7.	*TUN0272	8.
4	I 0056A	-28.0	1	12.2	40.4	2.3	1.0	142.	40.6	1	212.	63.8	13.7	46.5	-15.	*I 0056	-15.	*LIE0253	8.	*POR0133	9.
5	IRL0211A	-28.0	1	-7.5	53.2	0.8	0.6	62.	47.3	2	45.	63.8	-10.3	54.3	-6.	*I 0056	-3.	*DAH0233	-1.	*LIE0253	6.
6	MTN0288A	-22.0	1	-8.0	24.0	1.6	0.8	152.	43.2	1	103.	63.3	-5.6	20.0	2.	*TUN0272	3.	*I 0056	10.	*GUI0192	17.
7	RHS0135A	-4.0	1	29.0	-18.3	1.3	0.9	87.	43.8	2	92.	63.5	31.2	-22.2	5.	*AFS0024	6.	*SDN0231	22.	*YEM0266	23.
8	DNK0089A	2.0	1	12.1	57.1	1.2	0.6	177.	45.7	1	66.	63.9	10.0	54.5	5.	*I 0056	8.	*RRW0310	9.	*DDR0216	15.
9	RRW0310A	2.0	1	30.0	-1.2	0.6	0.6	0.	48.7	1	29.	63.3	29.8	-4.5	-9.	*TGK0225	-6.	*DNK0089	-4.	*RHS0135	7.
10	YEM0266A	14.0	1	46.3	17.3	2.9	2.1	84.	36.3	1	520.	63.4	47.5	16.8	9.	*OMA0123	9.	*IRQ0256	24.	*TUN0272	26.
11	IRQ0256A	20.0	1	43.4	33.0	1.8	0.9	154.	42.1	2	140.	63.5	48.0	30.0	1.	*YEM0266	2.	*OMA0123	17.	*BHR0255	17.
12	OMA0123A	26.0	1	55.5	21.0	1.5	1.1	98.	42.0	1	138.	63.4	52.0	19.0	-4.	*YEM0266	-3.	*IRQ0256	19.	*BHR0255	20.
13	IND0041A	56.0	1	77.3	15.4	1.8	1.1	41.	41.3	2	159.	63.3	84.9	19.0	5.	*THA0142	9.	*IND0042	11.	*CHN0154	16.
14	CHN0154A	62.0	1	84.2	40.1	2.5	1.6	3.	38.3	1	343.	63.6	79.0	34.3	-3.	*IND0038	-2.	*THA0142	6.	*IND0042	12.
15	THA0142A	62.0	1	100.8	13.1	2.5	1.2	104.	39.6	2	250.	63.5	105.4	14.3	-4.	*VTN0325	-3.	*CHN0154	5.	*CHN0156	8.
16	IND0038A	68.0	1	75.5	33.2	1.3	0.9	33.	43.6	2	96.	63.4	80.3	35.7	-4.	*CHN0154	-4.	*THA0142	11.	*YEM0266	12.
17	INS0030A	74.0	1	110.3	-7.5	1.3	0.7	163.	44.8	1	74.	63.5	116.1	-8.7	-8.	*VTN0325	-8.	*INS0033	4.	*AUS0010	12.
18	VTN0325A	75.0	1	105.1	15.3	2.8	1.3	116.	38.8	1	291.	63.4	104.5	8.5	-8.	*INS0030	-6.	*THA0142	-2.	*LAO0284	16.
19	CHN0182A	80.0	1	108.4	35.1	1.1	0.7	112.	45.4	2	66.	63.6	109.6	31.8	4.	*CHN0177	7.	*VTN0325	8.	*THA0142	14.
20	INS0033A	86.0	1	122.1	-1.4	1.8	0.9	77.	42.0	1	140.	63.4	122.8	-5.7	9.	*AUS0010	12.	*INS0030	16.	*VTN0325	19.
21	CHN0168A	92.0	1	125.0	47.3	2.3	0.8	158.	41.6	1	167.	63.8	120.0	52.7	6.	*CHN0154	9.	*CHN0174	11.	*URS0077	17.
22	AUS0010A	104.0	1	121.4	-24.5	3.4	1.9	56.	36.1	2	524.	63.3	124.5	-15.5	7.	*AUS0316	9.	*AUS0011	13.	*AUS0315	18.
23	AUS0316A	128.0	1	133.4	-18.4	2.6	1.6	95.	38.1	2	321.	63.2	130.8	-12.5	5.	*AUS0010	7.	*AUS0315	12.	*AUS0011	18.
24	NRU0309A	134.0	1	166.3	-0.1	0.6	0.6	0.	48.7	1	29.	63.4	162.0	-3.0	-6.	*AUS0316	-1.	*NHB0128	-0.	*OCE0101	3.
25	NHB0128A	140.0	1	168.0	-16.5	1.0	0.6	95.	46.3	2	51.	63.4	168.3	-17.7	13.	*NCL0100	15.	*AUS0316	23.	*OCE0101	27.
26	NZL0055A	158.0	1	173.0	-40.0	2.4	0.9	40.	40.9	1	184.	63.6	179.0	-37.6	18.	*OCE0101	24.	*NHB0128	25.	*AUS0316	25.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
27	CPV0301A	-34.0	2	-24.0	15.4	0.6	0.6	0.	48.7	1	28.	63.2	-22.9	16.8	-4.	*TUN0272	-1.	*SEN0222	-0.	*GUI0192	7
28	LBR0244A	-34.0	2	-9.2	0.2	0.9	0.6	123.	46.9	2	44.	63.3	-10.2	8.5	-23.	*TUN0272	-21.	*GUI0192	-14.	*SEN0222	-9
29	AZR0134A	-28.0	2	-23.2	36.1	2.5	0.7	158.	41.9	1	145.	63.5	-16.9	32.5	-12.	*I 0056	-8.	*POR0133	-8.	*TUN0272	0
30	I 0056B	-28.0	2	12.2	40.4	2.3	1.0	142.	40.6	1	212.	63.8	6.6	45.1	-17.	*I 0056	-14.	*LIE0253	-9.	*POR0133	-8
31	LIE0253A	-28.0	2	9.3	47.0	0.8	0.8	0.	46.2	2	59.	63.9	9.3	47.0	-8.	*I 0056	-5.	*TUN0272	-3.	*DDR0216	6
32	POR0133A	-28.0	2	-8.0	39.3	1.0	0.6	101.	46.6	1	51.	63.6	-8.3	42.1	-15.	*I 0056	-14.	*AZR0134	-8.	*LIE0253	2
33	TUN0272A	-22.0	2	0.3	23.3	6.8	3.9	179.	30.0	2	2180.	63.4	9.0	37.5	-4.	*I 0056	-3.	*SMR0311	11.	*LIE0253	12
34	BEL0018A	-16.0	2	4.3	50.3	0.7	0.6	160.	48.0	1	38.	63.8	6.4	50.3	-4.	*DDR0216	1.	*I 0056	2.	*LIE0253	3
35	DDR0216A	-10.0	2	12.2	52.0	0.9	0.6	154.	46.9	2	49.	63.8	15.0	51.0	-3.	*LIE0253	1.	*TUN0272	4.	*I 0056	4
36	ALB0296A	-4.0	2	19.5	41.1	0.6	0.6	0.	48.7	1	31.	63.7	19.8	42.6	-13.	*SMR0311	-11.	*SDN0231	-7.	*I 0056	2
37	SDN0231A	-4.0	2	30.0	12.4	2.0	1.4	146.	39.8	1	231.	63.5	22.0	13.0	-6.	*ALB0296	-2.	*SMR0311	-1.	*TUN0272	2
38	SMR0311B	-4.0	2	12.1	43.3	0.6	0.6	0.	48.7	1	31.	63.6	12.3	43.5	-15.	*SMR0311	-14.	*ALB0296	-5.	*SDN0231	-5
39	AFS0024A	2.0	2	27.0	-26.0	1.8	0.8	33.	42.7	2	119.	63.4	27.0	-29.1	3.	*LSO0305	4.	*NMB0025	13.	*TGK0225	20
40	TGK0225A	8.0	2	34.3	-5.5	2.2	1.6	121.	38.8	1	285.	63.3	30.5	-1.0	3.	*RRW0310	5.	*BDI0270	8.	*TUN0272	16
41	SYR0229A	14.0	2	38.0	34.5	1.0	0.6	19.	46.6	2	50.	63.6	42.2	37.2	-1.	*TUN0272	2.	*IRQ0256	4.	*I 0056	11
42	REU0097A	20.0	2	55.1	-19.3	1.3	0.8	110.	44.1	1	88.	63.5	54.7	-15.7	6.	*URS0061	9.	*MDG0236	11.	*TGK0225	15
43	URS0061A	20.0	2	24.4	56.5	0.8	0.6	5.	47.4	1	44.	63.9	21.0	56.8	-1.	*REU0097	4.	*DDR0216	5.	*LIE0253	8
44	BHR0255A	26.0	2	50.3	26.1	0.6	0.6	0.	48.7	2	30.	63.4	52.3	17.0	-19.	*TUN0272	-14.	*OMA0124	-13.	*OMA0123	-13
45	AFG0246A	50.0	2	64.1	33.2	1.3	1.2	64.	42.3	2	130.	63.5	66.2	30.0	9.	*PAK0127	13.	*IND0042	15.	*CHN0156	20
46	IND0042A	56.0	2	79.0	27.1	1.7	0.8	143.	42.9	1	113.	63.4	84.6	25.8	2.	*IND0037	4.	*CHN0156	8.	*IND0041	12
47	CHN0156A	62.0	2	98.3	36.2	2.2	1.5	150.	39.0	2	294.	63.7	105.2	32.6	-5.	*THA0142	-1.	*THA0142	-1.	*IND0037	7
48	IND0037A	68.0	2	93.0	26.0	1.4	0.9	40.	43.2	1	105.	63.4	96.0	29.5	-1.	*CHN0156	-1.	*LAO0284	14.	*VTN0325	18
49	LAO0284A	74.0	2	103.5	18.0	1.8	0.6	130.	43.9	2	89.	63.4	105.5	14.0	3.	*VTN0325	4.	*THA0142	13.	*THA0142	13
50	CHN0177A	80.0	2	112.2	30.4	1.0	0.6	155.	45.9	1	58.	63.6	109.2	29.1	2.	*CHN0156	6.	*CHN0158	7.	*CHN0182	10
51	CHN0174A	92.0	2	118.3	25.5	0.8	0.7	84.	46.6	1	49.	63.5	118.7	28.3	-2.	*CHN0177	1.	*CHN0173	6.	*CHN0168	7
52	KOR0112A	98.0	2	128.1	35.4	1.3	0.9	8.	43.6	2	101.	63.6	126.5	37.3	9.	*CHN0156	11.	*URS0077	20.	*CHN0174	20

Canal **2** suite - Channel **2** cont. - Canal **2** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
53	AUS0011A	104.0	2	133.3	-18.4	2.5	1.3	80.	39.1	1	269.	63.4	130.8	-12.5	5.	*AUS0315 *	7.	*AUS0010 *	12.	*AUS0012 *	16
54	URS0077A	110.0	2	113.4	59.1	2.1	1.8	31.	38.5	2	351.	63.9	103.6	50.1	5.	*CHN0156 *	7.	*KOR0112 *	20.	*CHN0154 *	20
55	AUS0315A	128.0	2	122.1	-24.4	3.1	2.3	75.	35.9	1	555.	63.3	124.5	-14.5	7.	*AUS0011 *	9.	*AUS0316 *	13.	*AUS0010 *	19
56	NCL0100A	140.0	2	166.0	-21.0	1.1	0.7	146.	45.1	1	68.	63.4	167.5	-23.0	13.	*NHB0128 *	16.	*AUS0315 *	21.	*FJI0193 *	21
57	FJI0193A	152.0	2	179.3	-17.4	0.8	0.8	133.	46.5	1	49.	63.4	-179.1	-16.1	11.	*SMO0057 *	16.	*WAL0102 *	16.	*NCL0100 *	20
58	CKH0052A	158.0	2	-160.1	-19.3	0.9	0.6	155.	46.9	2	47.	63.6	-160.0	-21.3	14.	*NZL0055 *	18.	*FJI0193 *	20.	*OCE0101 *	20

Canal **3** - Channel **3** - Canal **3**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
33	SEN0222A	-34.0	3	-14.4	13.4	1.2	0.9	139.	44.0	1	85.	63.3	-14.7	17.7	-2.	*MRC0209 *	1.	*CPV0301 *	4.	*MLI0118 *	8
34	GHA0108A	-28.0	3	-1.3	7.5	1.5	1.0	101.	42.7	2	117.	63.3	-2.9	11.0	2.	*MLI0118 *	5.	*TUN0272 *	7.	*STP0241 *	15
35	MRC0209A	-22.0	3	-8.4	29.4	2.4	1.3	43.	39.4	1	253.	63.4	-6.0	36.0	3.	*POR0133 *	7.	*TUN0272 *	7.	*STP0241 *	14
36	STP0241A	-22.0	3	6.4	0.5	0.6	0.6	0.	48.7	2	29.	63.4	7.4	1.7	-8.	*TUN0272 *	-7.	*CME0300 *	1.	*MRC0209 *	5
37	SUI0141A	-16.0	3	10.0	49.0	1.9	0.9	153.	41.8	2	159.	63.8	17.1	48.0	-3.	*ROU0136 *	2.	*TCH0144 *	4.	*SMR0311 *	4
38	CME0300A	-10.0	3	12.4	5.4	2.5	1.2	93.	39.6	1	235.	63.3	14.2	13.2	-5.	*ROU0136 *	-5.	*TUN0272 *	15.	*EGY0026 *	17
39	ROU0136A	-10.0	3	24.3	45.2	1.3	0.8	171.	44.1	1	95.	63.8	28.5	43.7	-8.	*CME0300 *	-7.	*EGY0026 *	7.	*SUI0141 *	11
40	EGY0026A	-4.0	3	30.3	27.5	2.6	1.6	135.	38.1	2	351.	63.6	31.2	22.0	-6.	*NMB0025 *	-6.	*SDN0232 *	8.	*SDN0231 *	15
41	NMB0025A	-4.0	3	17.4	-21.0	2.2	1.6	54.	38.6	2	298.	63.4	25.0	-17.6	-9.	*EGY0026 *	-9.	*SMR0311 *	13.	*CME0300 *	18
42	SMR0311C	-4.0	3	12.1	43.3	0.6	0.6	0.	48.7	1	31.	63.7	12.3	43.5	-17.	*SMR0311 *	-14.	*SMR0311 *	-14.	*ROU0136 *	-2
43	BDI0270A	2.0	3	29.2	-3.2	0.6	0.6	0.	48.7	1	29.	63.3	29.5	-4.2	2.	*FNL0103 *	5.	*TGK0225 *	7.	*KEN0249 *	15
44	FNL0103A	2.0	3	23.3	63.3	1.4	0.8	165.	43.8	1	108.	64.1	19.2	60.0	4.	*SUI0141 *	6.	*BDI0270 *	11.	*SMR0311 *	14
45	LSO0305A	8.0	3	28.0	-29.3	0.6	0.6	0.	48.7	2	30.	63.5	27.0	-29.8	2.	*AFS0022 *	6.	*NMB0025 *	6.	*AFS0024 *	8
46	AFI0099A	14.0	3	42.3	11.2	0.6	0.6	0.	48.7	1	29.	63.4	43.5	12.5	4.	*YMS0267 *	7.	*EGY0026 *	16.	*KEN0249 *	16
47	MDG0236A	20.0	3	46.3	-18.5	2.7	1.1	64.	39.6	2	239.	63.4	49.0	-12.3	11.	*REU0097 *	14.	*URS0059 *	20.	*OMA0124 *	22
48	OMA0124A	26.0	3	54.0	22.5	2.2	1.4	128.	39.2	1	264.	63.5	56.0	28.0	0.	*PAK0127 *	2.	*EGY0026 *	13.	*QAT0247 *	13
49	PAK0127A	38.0	3	69.4	29.5	2.2	1.9	14.	38.1	1	353.	63.6	75.0	32.3	-0.	*IND0038 *	2.	*CHN0154 *	6.	*IRN0109 *	15

Canal **3** suite - Channel **3** cont. - Canal **3** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
50	IND0041B	56.0	3	77.3	15.4	1.8	1.1	41.	41.3	2	160.	63.3	84.9	19.0	4.	*THA0142	9.	*IND0042	11.	*IND0042	11
51	CHN0154B	62.0	3	84.2	40.1	2.5	1.6	3.	38.3	1	345.	63.6	79.0	34.3	-4.	*IND0038	-2.	*PAK0127	2.	*THA0142	6
52	THA0142B	62.0	3	100.8	13.1	2.5	1.2	104.	39.6	2	252.	63.6	99.5	20.5	-3.	*CHN0156	1.	*CHN0156	1.	*CHN0154	4
53	IND0038B	68.0	3	75.5	33.2	1.3	0.9	33.	43.6	2	97.	63.4	72.5	35.9	-6.	*CHN0154	-3.	*PAK0127	-2.	*THA0142	10
54	INS0030B	74.0	3	110.3	-7.5	1.3	0.7	163.	44.8	1	74.	63.5	116.1	-8.7	2.	*INS0033	4.	*SNG0151	8.	*CHN0158	18
55	CHN0158A	80.0	3	111.5	37.4	2.6	1.5	126.	38.5	2	331.	63.7	115.3	31.5	-2.	*CHN0173	-1.	*CHN0177	8.	*CHN0159	9
56	INS0033B	86.0	3	122.1	-1.4	1.8	0.9	77.	42.0	1	141.	63.5	122.8	-5.7	13.	*INS0030	16.	*CHN0158	20.	*AUS0012	24
57	CHN0173A	92.0	3	116.0	27.1	1.2	0.7	105.	45.3	2	65.	63.5	113.9	29.0	-4.	*CHN0158	-3.	*CHN0177	13.	*CHN0159	13
58	AUS0012A	104.0	3	135.2	-30.1	1.8	1.4	45.	40.2	2	216.	63.6	138.6	-34.9	8.	*AUS0013	9.	*AUS0011	14.	*NZL0287	24
59	NZL0287A	128.0	3	173.3	-41.3	2.5	1.0	38.	40.3	2	232.	63.9	171.8	-34.1	12.	*AUS0319	15.	*AUS0315	18.	*WAL0102	23
60	WAL0102A	140.0	3	-177.2	-13.2	0.8	0.6	66.	47.5	2	41.	63.6	-176.6	-13.3	6.	*SMO0057	6.	*NZL0287	22.	*TON0215	28
61	SMO0057A	150.0	3	-172.0	-13.4	0.6	0.6	0.	48.7	1	31.	63.5	-172.5	-13.6	4.	*WAL0102	4.	*FJI0193	20.	*TON0215	25

Canal **4** - Channel **4** - Canal **4**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
30	MLI0118A	-34.0	4	-6.5	13.2	1.9	1.1	170.	41.0	2	173.	63.4	-2.5	23.3	-10.	*MTN0288	-5.	*TUN0150	-2.	*MCO0116	2
31	MCO0116A	-28.0	4	7.2	43.4	1.3	0.6	10.	45.3	1	72.	63.8	9.7	45.6	-0.	*SMR0311	4.	*TCH0144	5.	*TUN0150	10
32	ISL0049A	-22.0	4	-19.2	64.5	1.0	0.6	4.	46.5	2	58.	64.1	-13.5	65.1	-4.	*TUN0150	-4.	*URS0059	16.	*TCH0144	21
33	TUN0150A	-22.0	4	9.2	34.0	1.3	0.6	115.	45.2	2	70.	63.7	12.0	35.3	-3.	*ISL0049	-3.	*MRC0209	15.	*MCO0116	18
34	GNE0303A	-16.0	4	10.3	1.4	0.6	0.6	0.	48.7	1	29.	63.3	11.3	2.4	2.	*CME0300	5.	*HOL0213	5.	*CAF0258	20
35	HOL0213A	-16.0	4	5.0	51.3	0.7	0.6	165.	48.0	1	38.	63.9	7.2	52.2	2.	*TCH0144	6.	*GNE0303	8.	*SUI0141	9
36	CAF0258A	-10.0	4	-20.2	6.2	2.6	1.5	14.	38.2	2	314.	63.2	23.2	11.0	-22.	*TCH0144	-21.	*SDN0232	-15.	*CME0300	-6
37	TCH0144A	-10.0	4	17.1	49.1	1.3	0.6	167.	45.3	2	71.	63.9	12.1	50.3	-7.	*CAF0258	-6.	*SUI0141	4.	*HOL0213	6
38	SDN0232A	-4.0	4	30.0	18.4	1.7	1.4	134.	40.4	1	203.	63.5	35.5	23.0	-2.	*SMR0311	-1.	*EGY0026	6.	*SMR0311	15
39	SMR0311D	-4.0	4	12.1	43.3	0.6	0.6	0.	48.7	1	31.	63.7	12.3	43.5	-17.	*SMR0311	-14.	*SMR0311	-14.	*SDN0232	-5
40	AFS0022A	2.0	4	28.3	-31.1	0.9	0.6	36.	47.1	2	44.	63.6	30.6	-30.4	4.	*LSO0305	6.	*ISR0110	9.	*NMB0025	19

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
41	ISR0110A	2.0	4	34.4	31.3	0.6	0.6	0.	48.7	2	31.	63.6	34.8	29.5	-0.	*EGY0026	3.	*AFS0022	6.	*SDN0232	7
42	KEN0249A	8.0	4	37.5	0.4	2.1	1.4	95.	39.4	1	252.	63.4	41.9	3.9	8.	*YEM0266	10.	*YMS0267	17.	*SDN0232	19
43	YMS0267A	14.0	4	47.1	15.4	1.6	1.0	25.	42.4	2	129.	63.5	43.2	12.4	2.	*YEM0266	7.	*AFI0099	7.	*KEN0249	9
44	URS0059A	20.0	4	36.0	47.0	3.7	1.5	153.	36.8	1	494.	63.7	22.0	48.4	-2.	*TCH0144	-0.	*MCO0116	3.	*IRN0109	17
45	QAT0247A	26.0	4	51.1	25.1	0.6	0.6	0.	48.7	2	30.	63.5	51.1	26.2	-1.	*IRN0109	0.	*OMA0124	9.	*OMA0123	13
46	IRN0109A	38.0	4	54.3	33.0	3.5	1.6	150.	36.8	2	470.	63.5	61.1	36.5	3.	*URS0066	6.	*URS0059	9.	*PAK0127	12
47	URS0070A	44.0	4	74.2	41.0	1.1	0.6	179.	46.1	1	59.	63.7	69.3	39.5	1.	*IRN0109	5.	*URS0066	7.	*PAK0127	9
48	NPL0122A	50.0	4	84.0	28.0	1.2	0.6	154.	45.8	2	61.	63.6	80.2	28.8	-4.	*IND0042	-3.	*IRN0109	9.	*CHN0156	12
49	IND0042B	56.0	4	79.0	27.1	1.7	0.8	143.	42.9	1	114.	63.5	84.6	25.8	-6.	*NPL0122	-4.	*BGD0220	4.	*IND0037	4
50	CHN0156B	62.0	4	98.3	36.2	2.2	1.5	150.	39.0	2	296.	63.7	105.2	32.6	-5.	*THA0142	-1.	*THA0142	-1.	*CHN0159	4
51	IND0037B	68.0	4	93.0	26.0	1.4	0.9	40.	43.2	1	106.	63.5	93.0	22.0	-5.	*BGD0220	-5.	*CHN0156	8.	*IND0042	12
52	BGD0220A	74.0	4	90.0	24.0	1.2	0.7	138.	45.0	2	68.	63.4	89.8	26.0	-3.	*IND0037	-1.	*NPL0122	5.	*CHN0156	5
53	SNG0151A	74.0	4	103.4	1.2	0.6	0.6	0.	48.7	1	29.	63.4	102.4	0.4	3.	*INS0030	8.	*INS0030	9.	*BGD0220	10
54	CHN0159A	80.0	4	109.3	27.0	1.8	1.4	101.	40.0	1	224.	63.5	109.5	33.1	1.	*CHN0156	3.	*CHN0158	7.	*IND0037	13
55	CHN0166A	92.0	4	121.0	41.5	1.4	0.6	150.	45.1	1	73.	63.7	118.8	40.7	3.	*CHN0156	7.	*CHN0159	7.	*CHN0158	16
56	AUS0013A	104.0	4	144.2	-38.3	1.5	0.8	45.	43.5	1	109.	63.8	142.2	-34.2	6.	*AUS0012	9.	*AUS0319	10.	*AUS0014	13
57	URS0078A	110.0	4	107.2	53.4	1.7	0.7	11.	43.5	2	108.	63.8	107.8	50.0	6.	*CHN0156	7.	*CHN0158	22.	*CHN0154	22
58	AUS0319A	128.0	4	145.5	-21.3	2.7	1.8	120.	37.4	1	395.	63.4	142.2	-10.6	9.	*AUS0316	11.	*AUS0014	19.	*NZL0287	19
59	CKN0053A	158.0	4	-162.3	-11.0	1.3	0.6	30.	45.3	2	67.	63.6	-158.0	-9.0	15.	*NZL0055	19.	*OCE0101	20.	*TON0215	21
60	TON0215A	170.0	4	-175.0	-19.0	1.4	0.6	70.	45.1	2	66.	63.3	-175.6	-15.6	13.	*WAL0102	17.	*CKN0053	18.	*AUS0319	23

Canal 5 - Channel 5 - Canal 5

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
32	OCE0101B	-160.0	5	-144.3	-16.0	3.9	3.3	176.	33.2	2	1012.	63.3	-153.0	-23.0	19.	*CKH0052	22.	*NZL0055	24.	*AUS0316	28
33	GUI0192B	-34.0	5	-11.1	10.1	1.4	1.0	141.	42.8	1	113.	63.3	-14.5	11.5	5.	*CPV0301	8.	*MLI0118	11.	*TUN0272	17
34	DAH0233B	-28.0	5	2.1	9.1	1.1	0.6	87.	45.6	2	61.	63.4	1.0	10.4	1.	*IRL0211	4.	*TUN0272	8.	*MLI0118	10
35	IRL0211B	-28.0	5	-7.5	53.2	0.8	0.6	62.	47.3	2	45.	63.9	-10.3	54.3	-2.	*DAH0233	-1.	*LIE0253	6.	*TUN0272	13
36	MTN0288B	-22.0	5	-8.0	24.0	1.6	0.8	152.	43.2	1	105.	63.4	-5.6	20.0	2.	*TUN0272	3.	*GUI0192	18.	*DAH0233	19
37	RHS0135B	-4.0	5	29.0	-18.3	1.3	0.9	87.	43.8	2	93.	63.5	31.2	-22.2	5.	*AFS0024	6.	*SMR0311	14.	*SDN0231	22
38	SMR0311E	-4.0	5	12.1	43.3	0.6	0.6	0.	48.7	1	32.	63.7	12.3	43.5	-14.	*SMR0311	-14.	*ALB0296	11.	*SDN0231	11
39	DNK0089B	2.0	5	12.1	57.1	1.2	0.6	177.	45.7	1	67.	63.9	10.0	54.5	6.	*RRW0310	9.	*SMR0311	13.	*DDR0216	15
40	RRW0310B	2.0	5	30.0	-1.2	0.6	0.6	0.	48.7	1	29.	63.4	29.8	-4.5	-9.	*TGK0225	-6.	*DNK0089	-4.	*KEN0249	2
41	YEM0266B	14.0	5	46.3	17.3	2.9	2.1	84.	36.3	1	527.	63.5	47.5	16.8	6.	*OMA0123	9.	*YMS0267	10.	*IRQ0256	24
42	IRQ0256B	20.0	5	43.4	33.0	1.8	0.9	154.	42.1	2	142.	63.6	44.0	37.3	0.	*URS0066	5.	*SYR0229	6.	*URS0059	7
43	OMA0123B	26.0	5	55.5	21.0	1.5	1.1	98.	42.0	1	140.	63.5	52.0	19.0	-4.	*YEM0266	-3.	*YMS0267	16.	*QAT0247	16
44	PAK0282A	38.0	5	67.5	26.3	1.2	0.6	143.	45.6	1	63.	63.5	68.3	28.7	0.	*URS0066	7.	*IND0038	7.	*YEM0266	7
45	CLN0219A	44.0	5	80.3	7.4	0.6	0.6	0.	48.7	2	30.	63.5	80.0	10.0	-15.	*URS0066	-15.	*IND0041	-2.	*PAK0282	15
46	URS0066A	44.0	5	65.2	45.5	3.7	2.0	174.	35.6	2	661.	63.8	71.6	37.3	-3.	*CLN0219	2.	*CHN0154	3.	*IND0038	6
47	IND0041C	56.0	5	77.3	15.4	1.8	1.1	41.	41.3	2	161.	63.3	84.9	19.0	4.	*THA0142	9.	*IND0042	11.	*IND0042	11
48	CHN0154C	62.0	5	84.2	40.1	2.5	1.6	3.	38.3	1	347.	63.7	79.0	34.3	-4.	*IND0038	-2.	*THA0142	6.	*URS0066	7
49	THA0142C	62.0	5	100.8	13.1	2.5	1.2	104.	39.6	2	253.	63.6	99.5	20.5	-3.	*CHN0156	1.	*CHN0156	1.	*CHN0154	4
50	IND0038C	68.0	5	75.5	33.2	1.3	0.9	33.	43.6	2	98.	63.5	72.5	35.9	-5.	*CHN0154	-3.	*URS0066	0.	*YEM0266	8
51	INS0030C	74.0	5	110.3	-7.5	1.3	0.7	163.	44.8	1	75.	63.5	116.1	-8.7	2.	*INS0033	4.	*SNG0151	9.	*MLA0228	18
52	MLA0228A	80.0	5	114.3	3.4	2.0	0.9	45.	41.7	2	151.	63.5	110.2	6.0	-0.	*THA0142	1.	*CHN0159	13.	*MLA0227	14
53	INS0033C	86.0	5	122.1	-1.4	1.8	0.9	77.	42.0	1	142.	63.5	121.0	1.3	6.	*MLA0228	6.	*INS0030	22.	*AUS0014	25
54	AUS0014A	104.0	5	145.1	-21.4	2.3	1.5	85.	38.9	2	303.	63.7	149.0	-29.0	6.	*AUS0015	7.	*AUS0013	15.	*AUS0319	18
55	AUS0316B	128.0	5	133.4	-18.4	2.6	1.6	95.	38.1	2	325.	63.3	137.9	-17.2	1.	*AUS0014	2.	*AUS0319	9.	*AUS0315	15
56	NRU0309B	134.0	5	166.3	-0.1	0.6	0.6	0.	48.7	1	30.	63.4	162.0	-3.0	-7.	*AUS0316	-1.	*NHB0128	-0.	*OCE0101	3
57	NHB0128B	140.0	5	168.0	-16.5	1.0	0.6	95.	46.3	2	51.	63.4	168.3	-17.7	13.	*NCL0100	15.	*AUS0014	21.	*AUS0316	23
58	NZL0055B	158.0	5	173.0	-40.0	2.4	0.9	40.	40.9	1	187.	63.6	179.0	-37.6	11.	*AUS0014	12.	*OCE0101	24.	*NHB0128	25

Canal **6** - Channel **6** - Canal **6**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
28	CPV0301B	-34.0	6	-24.0	15.4	0.6	0.6	0.	48.7	1	29.	63.3	-22.9	16.8	-4.	*TUN0272 *	-1.	*SEN0222 *	-0.	*GUI0192 *	7
29	LBR0244B	-34.0	6	-9.2	0.2	0.9	0.6	123.	46.9	2	44.	63.3	-10.2	8.5	-23.	*TUN0272 *	-21.	*GUI0192 *	-14.	*SEN0222 *	-9
30	AZR0134B	-28.0	6	-23.2	36.1	2.5	0.7	158.	41.9	1	147.	63.5	-16.9	32.5	-9.	*POR0133 *	-8.	*TUN0272 *	0.	*LIE0253 *	11
31	LIE0253B	-28.0	6	9.3	47.0	0.8	0.8	0.	46.2	2	60.	63.9	9.3	47.0	-4.	*TUN0272 *	-3.	*DDR0216 *	6.	*BEL0018 *	10
32	POR0133B	-28.0	6	-8.0	39.3	1.0	0.6	101.	46.6	1	51.	63.7	-8.3	42.1	-9.	*AZR0134 *	-8.	*LIE0253 *	2.	*TUN0272 *	2
33	TUN0272B	-22.0	6	0.3	23.3	6.8	3.9	179.	30.0	2	2210.	63.4	9.0	37.5	7.	*LIE0253 *	12.	*MRC0209 *	13.	*AUT0017 *	15
34	BEL0018B	-16.0	6	4.3	50.3	0.7	0.6	160.	48.0	1	38.	63.9	6.4	50.3	-3.	*DDR0216 *	1.	*LIE0253 *	3.	*TUN0272 *	6
35	DDR0216B	-10.0	6	12.2	52.0	0.9	0.6	154.	46.9	2	50.	63.9	9.9	51.4	-2.	*BEL0018 *	2.	*LIE0253 *	4.	*AUT0017 *	5
36	ALB0296B	-4.0	6	19.5	41.1	0.6	0.6	0.	48.7	1	32.	63.7	19.8	42.6	-8.	*SDN0231 *	-7.	*ROU0136 *	5.	*TUN0272 *	5
37	SDN0231B	-4.0	6	30.0	12.4	2.0	1.4	146.	39.8	1	234.	63.5	22.0	13.0	-4.	*ALB0296 *	-2.	*TUN0272 *	2.	*EGY0026 *	13
38	AFS0024B	2.0	6	27.0	-26.0	1.8	0.8	33.	42.7	2	120.	63.5	27.0	-29.1	3.	*LSO0305 *	4.	*NMB0025 *	13.	*TGK0225 *	20
39	TGK0225B	8.0	6	34.3	-5.5	2.2	1.6	121.	38.8	1	289.	63.4	30.5	-1.0	3.	*RRW0310 *	5.	*BDI0270 *	8.	*TUN0272 *	16
40	SYR0229B	14.0	6	38.0	34.5	1.0	0.6	19.	46.6	2	51.	63.6	42.2	37.2	-0.	*TUN0272 *	2.	*IRQ0256 *	4.	*YEM0266 *	14
41	REU0097B	20.0	6	55.1	-19.3	1.3	0.8	110.	44.1	1	89.	63.6	54.7	-15.7	6.	*URS0061 *	9.	*MDG0236 *	11.	*TGK0225 *	15
42	URS0061B	20.0	6	24.4	56.5	0.8	0.6	5.	47.4	1	45.	63.9	21.0	56.8	-0.	*REU0097 *	4.	*DDR0216 *	5.	*LIE0253 *	8
43	BHR0255B	26.0	6	50.3	26.1	0.6	0.6	0.	48.7	2	30.	63.5	52.3	17.0	-19.	*TUN0272 *	-14.	*OMA0124 *	-13.	*OMA0123 *	-13
44	AFG0246B	50.0	6	64.1	33.2	1.3	1.2	64.	42.3	2	132.	63.5	65.7	37.6	5.	*URS0066 *	6.	*IND0042 *	18.	*PAK0127 *	18
45	IND0042C	56.0	6	79.0	27.1	1.7	0.8	143.	42.9	1	114.	63.5	84.6	25.8	2.	*IND0037 *	4.	*CHN0156 *	8.	*IND0041 *	12
46	CHN0156C	62.0	6	98.3	36.2	2.2	1.5	150.	39.0	2	298.	63.8	105.2	32.6	-4.	*THA0142 *	-1.	*THA0142 *	-1.	*IND0037 *	8
47	IND0037C	68.0	6	93.0	26.0	1.4	0.9	40.	43.2	1	106.	63.5	96.0	29.5	-1.	*CHN0156 *	-1.	*LAO0284 *	14.	*CHN0154 *	20
48	LAO0284B	74.0	6	103.5	18.0	1.8	0.6	130.	43.9	2	91.	63.5	104.5	20.0	3.	*CHN0179 *	4.	*THA0142 *	14.	*THA0142 *	14
49	MLA0227A	80.0	6	102.1	4.0	1.4	0.6	115.	45.0	1	68.	63.3	98.8	6.2	6.	*THA0142 *	14.	*THA0142 *	15.	*CHN0179 *	16
50	CHN0179A	92.0	6	112.2	22.0	1.9	0.9	35.	42.1	1	134.	63.4	110.0	18.0	7.	*LAO0284 *	9.	*KOR0112 *	20.	*MLA0227 *	20
51	KOR0112B	98.0	6	128.1	35.4	1.3	0.9	8.	43.6	2	103.	63.7	126.3	33.1	9.	*CHN0179 *	12.	*CHN0156 *	15.	*CHN0172 *	17
52	AUS0015A	104.0	6	146.5	-31.3	1.6	1.0	45.	42.2	1	145.	63.8	153.0	-30.0	8.	*AUS0014 *	9.	*AUS0010 *	16.	*URS0077 *	24
53	URS0077B	110.0	6	113.4	59.1	2.1	1.8	31.	38.5	2	356.	64.0	103.6	50.1	5.	*CHN0156 *	7.	*KOR0112 *	20.	*CHN0154 *	20

Canal **6** suite - Channel **6** cont. - Canal **6** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
54	AUS0315B	128.0	6	122.1	-24.4	3.1	2.3	75.	35.9	1	562.	63.3	124.5	-14.5	10.	*AUS0316 *	13.	*AUS0010 *	18.	*NZL0287 *	22
55	NCL0100B	140.0	6	166.0	-21.0	1.1	0.7	146.	45.1	1	69.	63.5	167.5	-23.0	13.	*NHB0128 *	16.	*AUS0315 *	21.	*FJI0193 *	21
56	FJI0193B	152.0	6	179.3	-17.4	0.8	0.8	133.	46.5	1	49.	63.5	-179.1	-16.1	11.	*SMO0057 *	16.	*WAL0102 *	16.	*NCL0100 *	20
57	CKH0052B	158.0	6	-160.1	-19.3	0.9	0.6	155.	46.9	2	48.	63.7	-160.0	-21.3	14.	*NZL0055 *	18.	*FJI0193 *	20.	*OCE0101 *	20

Canal **7** - Channel **7** - Canal **7**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
31	SEN0222B	-34.0	7	-14.4	13.4	1.2	0.9	139.	44.0	1	86.	63.3	-14.7	17.7	-2.	*MRC0209 *	1.	*CPV0301 *	4.	*MLI0118 *	8
32	GHA0108B	-28.0	7	-1.3	7.5	1.5	1.0	101.	42.7	2	118.	63.4	-2.9	11.0	2.	*MLI0118 *	6.	*TUN0272 *	7.	*LIE0253 *	15
33	MRC0209B	-22.0	7	-8.4	29.4	2.4	1.3	43.	39.4	1	257.	63.5	-6.0	36.0	3.	*POR0133 *	7.	*TUN0272 *	7.	*STP0241 *	14
34	STP0241B	-22.0	7	6.4	0.5	0.6	0.6	0.	48.7	2	30.	63.4	7.4	1.7	-8.	*TUN0272 *	-7.	*CME0300 *	1.	*MRC0209 *	5
35	AUT0017A	-16.0	7	10.0	49.0	1.9	0.9	153.	41.8	2	161.	63.9	16.5	47.0	-2.	*ROU0136 *	2.	*TCH0144 *	4.	*TUN0272 *	11
36	CME0300B	-10.0	7	12.4	5.4	2.5	1.2	93.	39.6	1	238.	63.3	14.2	13.2	-5.	*ROU0136 *	-5.	*TUN0272 *	15.	*EGY0026 *	17
37	ROU0136B	-10.0	7	24.3	45.2	1.3	0.8	171.	44.1	1	96.	63.9	28.5	43.7	-8.	*CME0300 *	-7.	*EGY0026 *	7.	*AUT0017 *	11
38	EGY0026B	-4.0	7	30.3	27.5	2.6	1.6	135.	38.1	2	356.	63.7	31.2	22.0	-6.	*NMB0025 *	-6.	*SDN0232 *	8.	*SDN0231 *	15
39	NMB0025B	-4.0	7	17.4	-21.0	2.2	1.6	54.	38.6	2	302.	63.4	25.0	-17.6	-9.	*EGY0026 *	-9.	*CME0300 *	18.	*LSO0305 *	18
40	BDI0270B	2.0	7	29.2	-3.2	0.6	0.6	0.	48.7	1	30.	63.4	29.5	-4.2	2.	*FNL0103 *	5.	*TGK0225 *	7.	*KEN0249 *	15
41	FNL0103B	2.0	7	23.3	63.3	1.4	0.8	165.	43.8	1	109.	64.1	19.2	60.0	4.	*AUT0017 *	7.	*BDI0270 *	11.	*EGY0026 *	21
42	LSO0305B	8.0	7	28.0	-29.3	0.6	0.6	0.	48.7	2	30.	63.5	27.0	-29.8	2.	*AFS0022 *	6.	*NMB0025 *	6.	*AFS0024 *	8
43	AFI0099B	14.0	7	42.3	11.2	0.6	0.6	0.	48.7	1	30.	63.4	43.5	12.5	4.	*YMS0267 *	7.	*EGY0026 *	16.	*KEN0249 *	16
44	MDG0236B	20.0	7	46.3	-18.5	2.7	1.1	64.	39.6	2	242.	63.5	49.0	-12.3	11.	*REU0097 *	14.	*URS0059 *	20.	*OMA0124 *	22
45	OMA0124B	26.0	7	54.0	22.5	2.2	1.4	128.	39.2	1	268.	63.5	56.0	28.0	1.	*PAK0127 *	2.	*EGY0026 *	13.	*QAT0247 *	13
46	PAK0127B	38.0	7	69.4	29.5	2.2	1.9	14.	38.1	1	358.	63.6	75.0	32.3	-0.	*IND0038 *	2.	*CHN0154 *	6.	*IRN0109 *	15
47	IND0041D	56.0	7	77.3	15.4	1.8	1.1	41.	41.3	2	162.	63.4	84.9	19.0	4.	*THA0142 *	9.	*IND0042 *	11.	*IND0042 *	11
48	CHN0154D	62.0	7	84.2	40.1	2.5	1.6	3.	38.3	1	350.	63.7	79.0	34.3	-4.	*IND0038 *	-2.	*PAK0127 *	2.	*THA0142 *	6
49	THA0142D	62.0	7	100.8	13.1	2.5	1.2	104.	39.6	2	255.	63.6	99.5	20.5	-2.	*CHN0156 *	1.	*CHN0154 *	4.	*CHN0183 *	7
50	IND0038D	68.0	7	75.5	33.2	1.3	0.9	33.	43.6	2	98.	63.5	72.5	35.9	-6.	*CHN0154 *	-3.	*PAK0127 *	-2.	*THA0142 *	10

Canal **7** suite - Channel **7** cont. - Canal **7** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
51	INS0030D	74.0	7	110.3	-7.5	1.3	0.7	163.	44.8	1	75.	63.5	116.1	-8.7	2.	*INS0033	4.	*SNG0151	8.	*AUS0010	12
52	CHN0158B	80.0	7	111.5	37.4	2.6	1.5	126.	38.5	2	335.	63.7	115.3	31.5	5.	*CHN0172	8.	*CHN0159	9.	*THA0142	19
53	INS0033D	86.0	7	122.1	-1.4	1.8	0.9	77.	42.0	1	143.	63.5	125.6	3.7	6.	*PHL0285	7.	*CHN0158	18.	*INS0030	19
54	CHN0172A	92.0	7	120.4	29.1	0.7	0.6	150.	47.8	2	38.	63.6	122.8	30.9	-1.	*CHN0158	0.	*KOR0112	6.	*CHN0179	12
55	AUS0010B	104.0	7	121.4	-24.5	3.4	1.9	56.	36.1	2	535.	63.4	126.6	-31.0	10.	*AUS0011	14.	*AUS0015	17.	*AUS0315	18
56	NZL0287B	128.0	7	173.3	-41.3	2.5	1.0	38.	40.3	2	235.	64.0	171.8	-34.1	12.	*AUS0319	15.	*AUS0315	18.	*WAL0102	24
57	WAL0102B	140.0	7	-177.2	-13.2	0.8	0.6	66.	47.5	2	42.	63.7	-176.6	-13.3	6.	*SMO0057	6.	*NZL0287	23.	*TON0215	28
58	SMO0057B	150.0	7	-172.0	-13.4	0.6	0.6	0.	48.7	1	31.	63.6	-172.5	-13.6	4.	*WAL0102	4.	*FJI0193	20.	*TON0215	25

Canal **8** - Channel **8** - Canal **8**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
29	MLI0118B	-34.0	8	-6.5	13.2	1.9	1.1	170.	41.0	2	176.	63.5	-2.5	23.3	-10.	*MTN0288	-5.	*TUN0150	-1.	*MCO0116	2
30	MCO0116B	-28.0	8	7.2	43.4	1.3	0.6	10.	45.3	1	73.	63.9	9.7	45.6	2.	*TCH0144	5.	*TUN0150	10.	*HOL0213	14
31	ISL0049B	-22.0	8	-19.2	64.5	1.0	0.6	4.	46.5	2	59.	64.1	-13.5	65.1	-4.	*TUN0150	-4.	*URS0059	16.	*TCH0144	21
32	TUN0150B	-22.0	8	9.2	34.0	1.3	0.6	115.	45.2	2	71.	63.7	12.0	35.3	-4.	*ISL0049	-3.	*I 0082	4.	*MRC0209	15
33	GNE0303B	-16.0	8	10.3	1.4	0.6	0.6	0.	48.7	1	30.	63.4	11.3	2.4	2.	*CME0300	5.	*HOL0213	5.	*CAF0258	20
34	HOL0213B	-16.0	8	5.0	51.3	0.7	0.6	165.	48.0	1	39.	63.9	7.2	52.2	1.	*TCH0144	6.	*GNE0303	8.	*AUT0017	9
35	CAF0258B	-10.0	8	-20.2	6.2	2.6	1.5	14.	38.2	2	318.	63.2	23.2	11.0	-22.	*TCH0144	-21.	*SDN0232	-15.	*CME0300	-6
36	TCH0144B	-10.0	8	17.1	49.1	1.3	0.6	167.	45.3	2	72.	63.9	12.1	50.3	-7.	*CAF0258	-6.	*AUT0017	4.	*HOL0213	6
37	SDN0232B	-4.0	8	30.0	18.4	1.7	1.4	134.	40.4	1	206.	63.6	35.5	23.0	4.	*EGY0026	6.	*CAF0258	18.	*KEN0249	18
38	AFS0022B	2.0	8	28.3	-31.1	0.9	0.6	36.	47.1	2	45.	63.6	30.6	-30.4	4.	*LSO0305	6.	*ISR0110	9.	*NMB0025	19
39	ISR0110B	2.0	8	34.4	31.3	0.6	0.6	0.	48.7	2	32.	63.7	34.8	29.5	-0.	*EGY0026	3.	*AFS0022	6.	*SDN0232	7
40	KEN0249B	8.0	8	37.5	0.4	2.1	1.4	95.	39.4	1	255.	63.4	41.9	3.9	8.	*YEM0266	10.	*YMS0267	17.	*SDN0232	19
41	YMS0267B	14.0	8	47.1	15.4	1.6	1.0	25.	42.4	2	131.	63.5	43.2	12.4	2.	*YEM0266	7.	*AFI0099	7.	*KEN0249	9
42	URS0059B	20.0	8	36.0	47.0	3.7	1.5	153.	36.8	1	500.	63.8	22.0	48.4	-2.	*TCH0144	-0.	*MCO0116	3.	*IRN0109	17
43	QAT0247B	26.0	8	51.1	25.1	0.6	0.6	0.	48.7	2	30.	63.5	51.1	26.2	-1.	*IRN0109	0.	*OMA0124	9.	*OMA0123	13

Canal **8** suite - Channel **8** cont. - Canal **8** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
44	IRN0109B	38.0	8	54.3	33.0	3.5	1.6	150.	36.8	2	477.	63.6	61.1	36.5	3.	*URS0066	6.	*URS0059	9.	*PAK0127	12
45	URS0070B	44.0	8	74.2	41.0	1.1	0.6	179.	46.1	1	60.	63.8	69.3	39.5	1.	*IRN0109	5.	*URS0066	7.	*PAK0127	9
46	NPL0122B	50.0	8	84.0	28.0	1.2	0.6	154.	45.8	2	61.	63.7	80.2	28.8	-4.	*IND0042	-3.	*IND0044	7.	*IRN0109	9
47	IND0042D	56.0	8	79.0	27.1	1.7	0.8	143.	42.9	1	115.	63.5	84.6	25.8	-6.	*NPL0122	-4.	*BGD0220	4.	*IND0037	4
48	CHN0183A	62.0	8	104.5	38.5	1.2	0.6	134.	45.6	2	68.	63.9	106.0	35.4	0.	*THA0142	4.	*CHN0159	6.	*IND0037	11
49	IND0037D	68.0	8	93.0	26.0	1.4	0.9	40.	43.2	1	107.	63.5	93.0	22.0	-5.	*BGD0220	-5.	*CHN0155	10.	*IND0042	12
50	BGD0220B	74.0	8	90.0	24.0	1.2	0.7	138.	45.0	2	69.	63.4	89.8	26.0	-3.	*IND0037	-1.	*NPL0122	5.	*IND0042	13
51	SNG0151B	74.0	8	103.4	1.2	0.6	0.6	0.	48.7	1	30.	63.4	102.4	0.4	-15.	*INS0029	-15.	*INS0030	9.	*BGD0220	10
52	CHN0159B	80.0	8	109.3	27.0	1.8	1.4	101.	40.0	1	227.	63.6	109.5	33.1	3.	*CHN0158	7.	*CHN0183	7.	*IND0037	13
53	PHL0285A	86.0	8	122.0	11.1	2.9	1.6	102.	37.5	2	400.	63.6	120.0	5.0	4.	*MLA0228	7.	*INS0032	11.	*INS0033	12
54	CHN0167A	92.0	8	125.0	43.4	1.8	0.6	151.	44.0	1	97.	63.9	125.7	40.6	-3.	*KRE0286	-2.	*CHN0159	10.	*PHL0285	19
55	KRE0286A	98.0	8	127.3	42.3	1.3	0.6	134.	44.8	2	79.	63.8	130.0	43.0	-2.	*CHN0167	-2.	*CHN0159	18.	*J 0111	18
56	AUS0011B	104.0	8	133.3	-18.4	2.5	1.3	80.	39.1	1	274.	63.5	137.9	-17.2	1.	*AUS0319	2.	*AUS0010	14.	*INS0036	15
57	URS0078B	110.0	8	107.2	53.4	1.7	0.7	11.	43.5	2	110.	63.9	107.8	50.0	9.	*CHN0183	15.	*J 0111	16.	*CHN0167	18
58	AUS0319B	128.0	8	145.5	-21.3	2.7	1.8	120.	37.4	1	401.	63.4	142.2	-10.6	5.	*AUS0011	8.	*AUS0316	11.	*INS0036	18
59	CKN0053B	158.0	8	-162.3	-11.0	1.3	0.6	30.	45.3	2	68.	63.6	-158.0	-9.0	15.	*NZL0055	19.	*OCE0101	20.	*TON0215	21
60	TON0215B	170.0	8	-175.0	-19.0	1.4	0.6	70.	45.1	2	67.	63.4	-175.6	-15.6	13.	*WAL0102	17.	*CKN0053	18.	*AUS0319	23

Canal **9** - Channel **9** - Canal **9**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
33	OCE0101C	-160.0	9	-144.3	-16.0	3.9	3.3	176.	33.2	2	1026.	63.4	-153.0	-23.0	19.	*CKH0052	22.	*NZL0055	24.	*AUS0316	28
34	GUI0192C	-34.0	9	-11.1	10.1	1.4	1.0	141.	42.8	1	115.	63.4	-14.5	11.5	5.	*CPV0301	8.	*MLI0118	11.	*TUN0272	17
35	DAH0233C	-28.0	9	2.1	9.1	1.1	0.6	87.	45.6	2	62.	63.5	1.0	10.4	1.	*IRL0211	4.	*TUN0272	8.	*MLI0118	10
36	IRL0211C	-28.0	9	-7.5	53.2	0.8	0.6	62.	47.3	2	46.	64.0	-10.3	54.3	-3.	*DAH0233	-1.	*LIE0253	6.	*TUN0272	13
37	MTN0288C	-22.0	9	-8.0	24.0	1.6	0.8	152.	43.2	1	106.	63.4	-5.6	20.0	2.	*TUN0272	3.	*GUI0192	18.	*I 0082	18
38	I 0082C	-16.0	9	12.2	40.4	2.3	1.0	142.	40.6	2	210.	63.8	13.7	46.5	1.	*TCH0144	5.	*DDR0216	9.	*TUN0272	10

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
39	RHS0135C	-4.0	9	29.0	-18.3	1.3	0.9	87.	43.8	2	94.	63.6	31.2	-22.2	5.	*AFS0024	6.	*SDN0231	22.	*SDN0232	23
40	DNK0089C	2.0	9	12.1	57.1	1.2	0.6	177.	45.7	1	68.	64.0	10.0	54.5	4.	*I 0082	8.	*RRW0310	9.	*DDR0216	15
41	RRW0310C	2.0	9	30.0	-1.2	0.6	0.6	0.	48.7	1	30.	63.4	29.8	-4.5	-9.	*TGK0225	-6.	*DNK0089	-4.	*KEN0249	2
42	YEM0266C	14.0	9	46.3	17.3	2.9	2.1	84.	36.3	1	534.	63.6	47.5	16.8	6.	*OMA0123	9.	*YMS0267	10.	*IRQ0256	24
43	IRQ0256C	20.0	9	43.4	33.0	1.8	0.9	154.	42.1	2	144.	63.6	44.0	37.3	0.	*URS0066	5.	*SYR0229	6.	*URS0059	7
44	OMA0123C	26.0	9	55.5	21.0	1.5	1.1	98.	42.0	1	142.	63.6	52.0	19.0	-4.	*YEM0266	-3.	*YMS0267	16.	*QAT0247	16
45	PAK0282B	38.0	9	67.5	26.3	1.2	0.6	143.	45.6	1	64.	63.6	68.3	28.7	1.	*URS0066	7.	*YEM0266	7.	*IRN0109	9
46	CLN0219B	44.0	9	80.3	7.4	0.6	0.6	0.	48.7	2	31.	63.6	80.0	10.0	-15.	*URS0066	-15.	*IND0043	8.	*IND0044	12
47	URS0066B	44.0	9	65.2	45.5	3.7	2.0	174.	35.6	2	670.	63.8	71.6	37.3	-1.	*CLN0219	2.	*CHN0155	6.	*URS0070	9
48	IND0044A	56.0	9	80.0	23.2	2.0	1.3	150.	40.1	2	219.	63.5	78.2	26.9	1.	*CHN0155	4.	*IND0042	8.	*NPL0122	11
49	CHN0155A	62.0	9	88.3	31.4	3.2	1.2	164.	38.4	1	336.	63.6	86.0	28.0	-0.	*IND0044	2.	*IND0048	6.	*IND0042	11
50	IND0039A	68.0	9	72.4	11.1	0.9	0.8	105.	45.7	2	57.	63.3	73.0	8.3	9.	*IND0043	14.	*CHN0155	18.	*IND0044	19
51	INS0029A	74.0	9	104.0	-2.4	1.4	1.3	83.	41.8	1	146.	63.5	104.3	1.0	-16.	*SNG0151	-16.	*MLA0227	7.	*MLA0228	7
52	MLA0228B	80.0	9	114.3	3.4	2.0	0.9	45.	41.7	2	153.	63.5	110.2	6.0	-0.	*INS0029	5.	*INS0032	5.	*PHL0285	10
53	INS0032A	86.0	9	115.5	-0.2	1.7	0.9	78.	42.4	1	128.	63.5	116.0	4.3	-4.	*MLA0228	-3.	*PHL0285	10.	*INS0029	18
54	INS0036A	98.0	9	135.0	-5.1	2.0	1.4	85.	39.7	1	242.	63.6	142.5	-8.0	8.	*AUS0316	14.	*AUS0011	16.	*J 0111	17
55	AUS0012B	104.0	9	135.2	-30.1	1.8	1.4	45.	40.2	2	221.	63.7	138.6	-34.9	6.	*AUS0013	9.	*AUS0316	11.	*AUS0011	14
56	J 0111A	110.0	9	134.4	31.5	3.4	2.9	46.	34.3	1	852.	63.6	123.7	24.3	11.	*CHN0155	17.	*CHN0162	19.	*URS0077	21
57	AUS0316C	128.0	9	133.4	-18.4	2.6	1.6	95.	38.1	2	330.	63.3	135.6	-12.0	2.	*INS0036	3.	*AUS0319	12.	*AUS0315	14
58	NRU0309C	134.0	9	166.3	-0.1	0.6	0.6	0.	48.7	1	30.	63.5	162.0	-3.0	-7.	*AUS0316	-1.	*NHB0128	-0.	*OCE0101	3
59	NHB0128C	140.0	9	168.0	-16.5	1.0	0.6	95.	46.3	2	52.	63.5	168.3	-17.7	13.	*NCL0100	15.	*AUS0316	23.	*OCE0101	27
60	NZL0055C	158.0	9	173.0	-40.0	2.4	0.9	40.	40.9	1	189.	63.7	166.3	-45.5	16.	*AUS0012	22.	*OCE0101	24.	*AUS0316	25

Canal **10** - Channel **10** - Canal **10**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
29	CPV0301C	-34.0	10	-24.0	15.4	0.6	0.6	0.	48.7	1	29.	63.3	-22.9	16.8	-4.	*TUN0272C	-1.	*SEN0222C	-0.	*GUI0192C	7
30	LBR0244C	-34.0	10	-9.2	0.2	0.9	0.6	123.	46.9	2	45.	63.4	-10.2	8.5	-23.	*TUN0272C	-21.	*GUI0192C	-14.	*SEN0222C	-9
31	AZR0134C	-28.0	10	-23.2	36.1	2.5	0.7	158.	41.9	1	149.	63.6	-16.9	32.5	-9.	*POR0133C	-8.	*TUN0272C	0.	*LIE0253C	11
32	LIE0253C	-28.0	10	9.3	47.0	0.8	0.8	0.	46.2	2	60.	64.0	9.3	47.0	-4.	*TUN0272C	-3.	*DDR0216C	6.	*BEL0018C	10
33	POR0133C	-28.0	10	-8.0	39.3	1.0	0.6	101.	46.6	1	52.	63.7	-8.3	42.1	-9.	*AZR0134C	-8.	*LIE0253C	2.	*TUN0272C	2
34	TUN0272C	-22.0	10	0.3	23.3	6.8	3.9	179.	30.0	2	2240.	63.5	9.0	37.5	3.	*I 0082C	5.	*LIE0253C	12.	*MRC0209C	13
35	BEL0018C	-16.0	10	4.3	50.3	0.7	0.6	160.	48.0	1	39.	63.9	6.4	50.3	-3.	*DDR0216C	1.	*LIE0253C	3.	*TUN0272C	6
36	DDR0216C	-10.0	10	12.2	52.0	0.9	0.6	154.	46.9	2	51.	64.0	9.9	51.4	-2.	*BEL0018C	2.	*LIE0253C	4.	*D 0088A	5
37	ALB0296C	-4.0	10	19.5	41.1	0.6	0.6	0.	48.7	1	32.	63.8	19.8	42.6	-8.	*SDN0231C	-7.	*ROU0136C	5.	*TUN0272C	5
38	SDN0231C	-4.0	10	30.0	12.4	2.0	1.4	146.	39.8	1	238.	63.6	22.0	13.0	-4.	*ALB0296C	-2.	*TUN0272C	2.	*EGY0026C	13
39	AFS0024C	2.0	10	27.0	-26.0	1.8	0.8	33.	42.7	2	122.	63.6	27.0	-29.1	3.	*LSO0305C	4.	*NMB0025C	13.	*TGK0225C	20
40	TGK0225C	8.0	10	34.3	-5.5	2.2	1.6	121.	38.8	1	293.	63.4	30.5	-1.0	3.	*RRW0310C	5.	*BDI0270C	8.	*TUN0272C	16
41	SYR0229C	14.0	10	38.0	34.5	1.0	0.6	19.	46.6	2	51.	63.7	42.2	37.2	-0.	*TUN0272C	2.	*IRQ0256C	4.	*YEM0266C	14
42	REU0097C	20.0	10	55.1	-19.3	1.3	0.8	110.	44.1	1	90.	63.6	54.7	-15.7	6.	*URS0061C	9.	*MDG0236C	11.	*TGK0225C	15
43	URS0061C	20.0	10	24.4	56.5	0.8	0.6	5.	47.4	1	45.	64.0	21.0	56.8	-0.	*REU0097C	4.	*DDR0216C	5.	*LIE0253C	8
44	BHR0255C	26.0	10	50.3	26.1	0.6	0.6	0.	48.7	2	31.	63.6	52.3	17.0	-19.	*TUN0272C	-14.	*OMA0124C	-13.	*OMA0123C	-13
45	AFG0246C	50.0	10	64.1	33.2	1.3	1.2	64.	42.3	2	133.	63.6	65.7	37.6	5.	*URS0066B	6.	*PAK0127C	18.	*CHN0185A	20
46	IND0043A	56.0	10	77.4	10.5	1.4	1.0	40.	42.8	1	115.	63.4	80.3	13.5	9.	*IND0044B	14.	*IND0044A	14.	*IND0048A	20
47	CHN0185A	62.0	10	95.5	35.3	1.8	0.9	161.	41.9	2	153.	63.8	90.4	33.0	2.	*CHN0155B	6.	*CHN0155A	7.	*IND0048A	13
48	IND0048A	68.0	10	86.0	25.0	1.5	0.9	164.	42.9	1	113.	63.5	88.6	28.2	-2.	*CHN0155B	2.	*CHN0155A	3.	*CHN0185A	5
49	LAO0284C	74.0	10	103.5	18.0	1.8	0.6	130.	43.9	2	92.	63.5	105.5	14.0	3.	*CHN0162A	4.	*MLA0227B	20.	*CHN0185A	20
50	MLA0227B	80.0	10	102.1	4.0	1.4	0.6	115.	45.0	1	69.	63.4	98.8	6.2	2.	*INS0028A	5.	*CHN0162A	10.	*CHN0158C	16
51	INS0034A	86.0	10	121.4	-8.5	1.5	0.9	3.	43.2	2	109.	63.6	125.0	-9.5	6.	*AUS0315C	8.	*INS0032A	18.	*INS0031A	20
52	CHN0162A	92.0	10	115.2	21.3	2.7	1.7	45.	37.7	1	384.	63.5	110.0	15.0	6.	*LAO0284C	7.	*MLA0227B	21.	*KOR0112C	22
53	KOR0112C	98.0	10	128.1	35.4	1.3	0.9	8.	43.6	2	104.	63.7	126.3	33.1	2.	*CHN0162A	4.	*CHN0170A	11.	*J 0111B	16
54	AUS0013B	104.0	10	144.2	-38.3	1.5	0.8	45.	43.5	1	111.	63.9	142.2	-34.2	7.	*AUS0012B	9.	*AUS0014B	13.	*AUS0315C	22

Canal **10** suite - Channel **10** cont. - Canal **10** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
55	URS0077C	110.0	10	113.4	59.1	2.1	1.8	31.	38.5	2	361.	64.0	125.0	55.0	9.	*J 0111B 14.	*J 0111A 14.	*KOR0112C 19
56	AUS0315C	128.0	10	122.1	-24.4	3.1	2.3	75.	35.9	1	570.	63.4	124.5	-14.5	9.	*INS0034A 12.	*AUS0316C 13.	*NZL0287C 22
57	NCL0100C	140.0	10	166.0	-21.0	1.1	0.7	146.	45.1	1	69.	63.5	167.5	-23.0	13.	*NHB0128C 16.	*AUS0315C 21.	*FJI0193C 21
58	FJI0193C	152.0	10	179.3	-17.4	0.8	0.8	133.	46.5	1	50.	63.5	-179.1	-16.1	11.	*SMO0057C 16.	*WAL0102C 16.	*NCL0100C 20
59	CKH0052C	158.0	10	-160.1	-19.3	0.9	0.6	155.	46.9	2	48.	63.8	-160.0	-21.3	14.	*NZL0055C 18.	*FJI0193C 20.	*OCE0101C 20

Canal **11** - Channel **11** - Canal **11**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
32	SEN0222C	-34.0	11	-14.4	13.4	1.2	0.9	139.	44.0	1	87.	63.4	-14.7	17.7	-2.	*MRC0209C 1.	*CPV0301C 4.	*MLI0118C 8
33	GHA0108C	-28.0	11	-1.3	7.5	1.5	1.0	101.	42.7	2	120.	63.5	-2.9	11.0	2.	*MLI0118C 6.	*TUN0272C 7.	*LIE0253C 15
34	MRC0209C	-22.0	11	-8.4	29.4	2.4	1.3	43.	39.4	1	260.	63.5	-6.0	36.0	3.	*POR0133C 7.	*TUN0272C 7.	*STP0241C 14
35	STP0241C	-22.0	11	6.4	0.5	0.6	0.6	0.	48.7	2	30.	63.5	7.4	1.7	-8.	*TUN0272C -7.	*CME0300C 1.	*MRC0209C 5
36	D 0088A	-16.0	11	10.0	49.0	1.9	0.9	153.	41.8	2	163.	63.9	17.1	48.0	-1.	*ROU0136C 2.	*TCH0144C 4.	*DDR0216C 11
37	CME0300C	-10.0	11	12.4	5.4	2.5	1.2	93.	39.6	1	242.	63.4	14.2	13.2	-5.	*ROU0136C -5.	*TUN0272C 15.	*EGY0026C 17
38	ROU0136C	-10.0	11	24.3	45.2	1.3	0.8	171.	44.1	1	97.	64.0	28.5	43.7	-8.	*CME0300C -7.	*EGY0026C 7.	*D 0088A 11
39	EGY0026C	-4.0	11	30.3	27.5	2.6	1.6	135.	38.1	2	361.	63.7	31.2	22.0	-6.	*NMB0025C -6.	*SDN0232C 8.	*SDN0231C 15
40	NMB0025C	-4.0	11	17.4	-21.0	2.2	1.6	54.	38.6	2	306.	63.5	25.0	-17.6	-9.	*EGY0026C -9.	*CME0300C 18.	*LSO0305C 18
41	BDI0270C	2.0	11	29.2	-3.2	0.6	0.6	0.	48.7	1	30.	63.5	29.5	-4.2	2.	*FNL0103C 5.	*TGK0225C 7.	*KEN0249C 15
42	FNL0103C	2.0	11	23.3	63.3	1.4	0.8	165.	43.8	1	111.	64.2	19.2	60.0	4.	*D 0088A 7.	*BDI0270C 11.	*EGY0026C 21
43	LSO0305C	8.0	11	28.0	-29.3	0.6	0.6	0.	48.7	2	31.	63.6	27.0	-29.8	4.	*NMB0025C 7.	*AFS0024C 8.	*MDG0236C 22
44	AFI0099C	14.0	11	42.3	11.2	0.6	0.6	0.	48.7	1	30.	63.5	43.5	12.5	5.	*YMS0267C 7.	*EGY0026C 16.	*KEN0249C 16
45	MDG0236C	20.0	11	46.3	-18.5	2.7	1.1	64.	39.6	2	246.	63.5	49.0	-12.3	11.	*REU0097C 14.	*URS0059C 20.	*OMA0124C 22
46	OMA0124C	26.0	11	54.0	22.5	2.2	1.4	128.	39.2	1	271.	63.6	56.0	28.0	1.	*PAK0127C 2.	*EGY0026C 13.	*QAT0247C 13
47	PAK0127C	38.0	11	69.4	29.5	2.2	1.9	14.	38.1	1	363.	63.7	75.0	32.3	4.	*CHN0155B 5.	*IND0044B 11.	*IRN0109C 15
48	IND0044B	56.0	11	80.0	23.2	2.0	1.3	150.	40.1	2	221.	63.5	78.2	26.9	0.	*CHN0155B 4.	*PAK0127C 4.	*NPL0122C 10
49	CHN0155B	62.0	11	88.3	31.4	3.2	1.2	164.	38.4	1	338.	63.7	86.0	28.0	-1.	*IND0044B 2.	*IND0048B 6.	*IND0048A 7

Canal **11** suite - Channel **11** cont. - Canal **11** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
50	IND0039B	68.0	11	72.4	11.1	0.9	0.8	105.	45.7	2	58.	63.3	73.0	8.3	7.	*IND0043B 14.	*IND0043A 14.	*MLD0306A 15
51	INS0028A	74.0	11	99.0	1.2	1.9	0.8	130.	42.4	1	126.	63.4	102.2	1.8	-19.	*SNG0151C-19.	*MLA0227B 3.	*INS0031A 7
52	CHN0158C	80.0	11	111.5	37.4	2.6	1.5	126.	38.5	2	340.	63.8	115.3	31.5	-2.	*CHN0170A -0.	*J 0111B 8.	*CHN0159C 9
53	INS0031A	86.0	11	110.5	-1.2	1.3	1.0	159.	43.3	1	104.	63.4	110.3	-3.0	9.	*INS0028A 12.	*PHL0285B 17.	*INS0034A 17
54	CHN0170A	92.0	11	120.0	32.4	1.3	0.6	150.	45.5	2	67.	63.7	119.1	35.2	-4.	*CHN0158C -3.	*J 0111B 5.	*CHN0160A 10
55	INS0035A	98.0	11	128.1	-1.5	1.8	1.1	77.	41.3	1	166.	63.5	124.5	-1.9	12.	*PHL0285B 20.	*J 0111B 20.	*AUS0014B 20
56	AUS0014B	104.0	11	145.1	-21.4	2.3	1.5	85.	38.9	2	309.	63.8	149.0	-29.0	6.	*AUS0015B 7.	*AUS0013B 15.	*AUS0319C 18
57	J 0111B	110.0	11	134.4	31.5	3.4	2.9	46.	34.3	1	858.	63.6	123.7	24.3	6.	*PNG0131A 8.	*CHN0158C 14.	*CHN0155B 17
58	NZL0287C	128.0	11	173.3	-41.3	2.5	1.0	38.	40.3	2	238.	64.0	171.8	-34.1	7.	*AUS0014B 9.	*AUS0319C 15.	*AUS0315C 18
59	WAL0102C	140.0	11	-177.2	-13.2	0.8	0.6	66.	47.5	2	42.	63.7	-176.6	-13.3	6.	*SMO0057C 6.	*NZL0287C 23.	*AUS0014B 27
60	SMO0057C	150.0	11	-172.0	-13.4	0.6	0.6	0.	48.7	1	31.	63.7	-172.5	-13.6	4.	*WAL0102C 4.	*FJI0193C 20.	*TON0215C 25

Canal **12** - Channel **12** - Canal **12**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
30	MLI0118C	-34.0	12	-6.5	13.2	1.9	1.1	170.	41.0	2	178.	63.5	-2.5	23.3	-10.	*MTN0288D -5.	*TUN0150C -1.	*MCO0116C 2
31	MCO0116C	-28.0	12	7.2	43.4	1.3	0.6	10.	45.3	1	74.	64.0	9.7	45.6	2.	*TCH0144C 5.	*TUN0150C 10.	*HOL0213C 14.
32	ISL0049C	-22.0	12	-19.2	64.5	1.0	0.6	4.	46.5	2	59.	64.2	-13.5	65.1	-4.	*TUN0150C -4.	*URS0059C 16.	*TCH0144C 21.
33	TUN0150C	-22.0	12	9.2	34.0	1.3	0.6	115.	45.2	2	72.	63.8	12.0	35.3	-4.	*ISL0049C -3.	*I 0082D 4.	*MRC0209C 15
34	GNE0303C	-16.0	12	10.3	1.4	0.6	0.6	0.	48.7	1	30.	63.5	11.3	2.4	2.	*HOL0213C 5.	*CME0300C 5.	*CAF0258C 20
35	HOL0213C	-16.0	12	5.0	51.3	0.7	0.6	165.	48.0	1	39.	64.0	7.2	52.2	1.	*TCH0144C 6.	*GNE0303C 8.	*D 0088A 9
36	CAF0258C	-10.0	12	-20.2	6.2	2.6	1.5	14.	38.2	2	322.	63.3	23.2	11.0	-22.	*TCH0144C-21.	*SDN0232C-15.	*CME0300C -6
37	TCH0144C	-10.0	12	17.1	49.1	1.3	0.6	167.	45.3	2	73.	64.0	12.1	50.3	-7.	*CAF0258C -6.	*D 0088A 4.	*HOL0213C 6
38	SDN0232C	-4.0	12	30.0	18.4	1.7	1.4	134.	40.4	1	209.	63.6	35.5	23.0	4.	*EGY0026C 6.	*CAF0258C 18.	*KEN0249C 18
39	ISR0110C	2.0	12	34.4	31.3	0.6	0.6	0.	48.7	2	32.	63.7	34.8	29.5	1.	*EGY0026C 3.	*SDN0232C 7.	*URS0059C 13
40	KEN0249C	8.0	12	37.5	0.4	2.1	1.4	95.	39.4	1	259.	63.5	41.9	3.9	8.	*YEM0266D 10.	*YMS0267C 17.	*SDN0232C 19
41	YMS0267C	14.0	12	47.1	15.4	1.6	1.0	25.	42.4	2	132.	63.6	43.2	12.4	2.	*YEM0266D 7.	*AFI0099C 7.	*KEN0249C 9

Canal **12** suite - Channel **12** cont. - Canal **12** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
42	URS0059C	20.0	12	36.0	47.0	3.7	1.5	153.	36.8	1	507.	63.9	22.0	48.4	-2.	*TCH0144C	-0.	*MCO0116C	3.	*IRN0109C	17
43	QAT0247C	26.0	12	51.1	25.1	0.6	0.6	0.	48.7	2	31.	63.6	51.1	26.2	-1.	*IRN0109C	0.	*OMA0124C	9.	*OMA0123D	13
44	IRN0109C	38.0	12	54.3	33.0	3.5	1.6	150.	36.8	2	483.	63.6	46.1	33.1	5.	*URS0059C	6.	*PAK0127C	16.	*IRQ0256D	17
45	MLD0306A	44.0	12	72.3	4.0	2.3	0.6	96.	42.9	1	114.	63.5	72.5	7.0	1.	*IND0043B	3.	*URS0073A	8.	*CLN0219C	18
46	URS0073A	44.0	12	55.2	64.1	1.4	0.6	6.	45.0	1	83.	64.2	59.2	61.6	-2.	*MLD0306A	-2.	*URS0059C	9.	*IRN0109C	17
47	NPL0122C	50.0	12	84.0	28.0	1.2	0.6	154.	45.8	2	62.	63.7	88.0	26.5	-4.	*IND0048B	-0.	*BGD0220C	0.	*IND0044C	8
48	IND0043B	56.0	12	77.4	10.5	1.4	1.0	40.	42.8	1	116.	63.4	77.5	8.1	8.	*MLD0306A	11.	*CLN0219C	16.	*IND0044C	17
49	CHN0184A	62.0	12	100.5	37.5	2.4	0.7	149.	41.8	2	161.	63.9	105.8	32.9	2.	*CHN0159C	4.	*CHN0155C	11.	*CHN0155B	11
50	IND0048B	68.0	12	86.0	25.0	1.5	0.9	164.	42.9	1	114.	63.5	88.6	28.2	-6.	*BGD0220C	-2.	*NPL0122C	-1.	*CHN0155C	2
51	BGD0220C	74.0	12	90.0	24.0	1.2	0.7	138.	45.0	2	70.	63.5	88.0	24.0	-3.	*IND0048B	-2.	*NPL0122C	7.	*SNG0151C	16
52	SNG0151C	74.0	12	103.4	1.2	0.6	0.6	0.	48.7	1	30.	63.5	102.4	0.4	-18.	*INS0029B	-15.	*INS0028A	-15.	*BGD0220C	10
53	CHN0159C	80.0	12	109.3	27.0	1.8	1.4	101.	40.0	1	230.	63.7	109.5	33.1	0.	*CHN0184A	2.	*CHN0158C	7.	*CHN0160A	11
54	PHL0285B	86.0	12	122.0	11.1	2.9	1.6	102.	37.5	2	406.	63.6	120.0	5.0	5.	*MLA0228C	7.	*INS0032B	11.	*INS0031A	17
55	CHN0160A	92.0	12	123.3	46.0	2.0	1.4	145.	39.7	1	267.	64.0	128.3	41.4	-4.	*KRE0286B	-3.	*CHN0159C	11.	*CHN0170A	16
56	KRE0286B	98.0	12	127.3	42.3	1.3	0.6	134.	44.8	2	80.	63.9	126.6	38.0	-1.	*CHN0160A	-0.	*CHN0159C	12.	*CHN0184A	13
57	AUS0015B	104.0	12	146.5	-31.3	1.6	1.0	45.	42.2	1	148.	63.9	153.0	-30.0	1.	*AUS0319C	2.	*AUS0014B	9.	*PNG0131A	12
58	PNG0131A	110.0	12	147.3	-6.3	2.3	2.0	139.	37.5	1	407.	63.6	154.0	-12.0	4.	*J 0111C	8.	*J 0111B	8.	*AUS0015B	12
59	AUS0319C	128.0	12	145.5	-21.3	2.7	1.8	120.	37.4	1	406.	63.5	142.2	-10.6	-1.	*PNG0131A	-1.	*INS0036B	18.	*AUS0014B	19
60	URS0081A	140.0	12	169.0	65.0	1.5	0.6	168.	44.7	1	91.	64.3	158.1	67.8	6.	*CHN0160A	6.	*KRE0286B	24.	*AUS0319C	24
61	CKN0053C	158.0	12-	162.3	-11.0	1.3	0.6	30.	45.3	2	69.	63.7	-158.0	-9.0	15.	*NZL0055D	19.	*OCE0101D	20.	*TON0215C	21
62	TON0215C	170.0	12-	175.0	-19.0	1.4	0.6	70.	45.1	2	67.	63.4	-175.6	-15.6	11.	*PNG0131A	14.	*WAL0102C	17.	*CKN0053C	18

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
34	OCE0101D	-160.0	13	-144.3	-16.0	3.9	3.3	176.	33.2	2	1040.	63.4	-153.0	-23.0	18.	*CKH0052D	22.	*NZL0055D	24.	*AUS0320A	25
35	GUI0192D	-34.0	13	-11.1	10.1	1.4	1.0	141.	42.8	1	116.	63.5	-14.5	11.5	6.	*CPV0301D	8.	*MLI0118C	11.	*CAF0258C	20
36	DAH0233D	-28.0	13	2.1	9.1	1.1	0.6	87.	45.6	2	63.	63.5	1.0	10.4	2.	*IRL0211D	4.	*MLI0118C	10.	*LIE0253D	16
37	IRL0211D	-28.0	13	-7.5	53.2	0.8	0.6	62.	47.3	2	47.	64.0	-10.3	54.3	-2.	*DAH0233D	-1.	*LIE0253D	6.	*I 0082D	17
38	MTN0288D	-22.0	13	-8.0	24.0	1.6	0.8	152.	43.2	1	107.	63.5	-5.6	20.0	10.	*I 0082D	18.	*GUI0192D	18.	*DAH0233D	19
39	I 0082D	-16.0	13	12.2	40.4	2.3	1.0	142.	40.6	2	213.	63.8	13.7	46.5	2.	*TCH0144C	5.	*DDR0216D	9.	*S 0138A	12
40	RHS0135D	-4.0	13	29.0	-18.3	1.3	0.9	87.	43.8	2	95.	63.6	31.2	-22.2	5.	*AFS0024D	6.	*SDN0231D	22.	*SDN0232C	23
41	RRW0310D	2.0	13	30.0	-1.2	0.6	0.6	0.	48.7	1	30.	63.5	29.8	-4.5	-11.	*S 0138A	-9.	*TGK0225D	-6.	*KEN0249C	2
42	S 0138A	2.0	13	16.0	61.0	1.1	0.9	144.	44.2	1	99.	64.2	13.3	55.3	4.	*I 0082D	8.	*RRW0310D	9.	*DDR0216D	14
43	YEM0266D	14.0	13	46.3	17.3	2.9	2.1	84.	36.3	1	541.	63.6	47.5	16.8	6.	*OMA0123D	9.	*YMS0267C	10.	*IRQ0256D	24
44	IRQ0256D	20.0	13	43.4	33.0	1.8	0.9	154.	42.1	2	145.	63.7	48.0	30.0	1.	*YEM0266D	2.	*URS0059C	14.	*OMA0123D	17
45	OMA0123D	26.0	13	55.5	21.0	1.5	1.1	98.	42.0	1	144.	63.6	52.0	19.0	-3.	*YEM0266D	-3.	*YMS0267C	16.	*QAT0247C	16
46	PAK0283A	38.0	13	74.4	33.5	1.1	0.9	160.	44.0	1	97.	63.8	72.8	36.7	-5.	*URS0069A	-4.	*CHN0155C	4.	*YEM0266D	10
47	CLN0219C	44.0	13	80.3	7.4	0.6	0.6	0.	48.7	2	31.	63.6	80.0	10.0	-8.	*URS0069A	-8.	*IND0043C	8.	*IND0043B	8
48	URS0069A	44.0	13	70.5	38.3	1.1	0.6	163.	46.1	2	59.	63.8	75.1	37.3	-5.	*PAK0283A	-3.	*CLN0219C	0.	*CHN0155C	3
49	IND0044C	56.0	13	80.0	23.2	2.0	1.3	150.	40.1	2	222.	63.6	78.2	26.9	2.	*CHN0155C	4.	*NPL0122C	11.	*PAK0283A	14
50	CHN0155C	62.0	13	88.3	31.4	3.2	1.2	164.	38.4	1	341.	63.7	86.0	28.0	-1.	*IND0044C	2.	*IND0048C	6.	*IND0048B	7
51	IND0039C	68.0	13	72.4	11.1	0.9	0.8	105.	45.7	2	58.	63.3	73.0	8.3	7.	*IND0043C	14.	*IND0043B	14.	*MLD0306A	16
52	INS0029B	74.0	13	104.0	-2.4	1.4	1.3	83.	41.8	1	148.	63.5	104.3	1.0	-16.	*SNG0151C	-16.	*MLA0227C	7.	*MLA0228C	7
53	MLA0228C	80.0	13	114.3	3.4	2.0	0.9	45.	41.7	2	155.	63.6	110.2	6.0	-0.	*INS0029B	5.	*INS0032B	5.	*PHL0285B	10
54	INS0032B	86.0	13	115.5	-0.2	1.7	0.9	78.	42.4	1	129.	63.5	116.0	4.3	-4.	*MLA0228C	-3.	*PHL0285B	10.	*INS0029B	18
55	INS0036B	98.0	13	135.0	-5.1	2.0	1.4	85.	39.7	1	245.	63.6	142.5	-8.0	5.	*PNG0131A	10.	*AUS0010C	14.	*PNG0271A	15
56	AUS0010C	104.0	13	121.4	-24.5	3.4	1.9	56.	36.1	2	546.	63.5	124.5	-15.5	10.	*AUS0011C	13.	*INS0036B	16.	*J 0111C	19
57	J 0111C	110.0	13	134.4	31.5	3.4	2.9	46.	34.3	1	864.	63.7	123.7	24.3	7.	*PNG0131A	9.	*CHN0155C	17.	*CHN0162B	19
58	AUS0320A	128.0	13	147.1	-32.0	1.9	1.2	15.	40.7	2	198.	63.6	153.0	-30.0	5.	*PNG0271A	8.	*AUS0319C	9.	*AUS0015B	18
59	NRU0309D	134.0	13	166.3	-0.1	0.6	0.6	0.	48.7	1	31.	63.6	162.0	-3.0	-8.	*NHB0128D	-0.	*PNG0271A	0.	*AUS0320A	0
60	NHB0128D	140.0	13	168.0	-16.5	1.0	0.6	95.	46.3	2	53.	63.6	168.3	-17.7	13.	*NCL0100D	15.	*AUS0320A	23.	*OCE0101D	27
61	NZL0055D	158.0	13	173.0	-40.0	2.4	0.9	40.	40.9	1	192.	63.7	166.3	-45.5	16.	*AUS0320A	24.	*OCE0101D	24.	*AUS0010C	25

Canal **14** - Channel **14** - Canal **14**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
29	CPV0301D	-34.0	14	-24.0	15.4	0.6	0.6	0.	48.7	1	30.	63.4	-22.9	16.8	-2.	*SEN0222D	-0.	*GUI0192D	7.	*LBR0244D	9
30	LBR0244D	-34.0	14	-9.2	0.2	0.9	0.6	123.	46.9	2	46.	63.5	-10.2	8.5	-17.	*GUI0192D	-14.	*SEN0222D	-9.	*CPV0301D	-8
31	AZR0134D	-28.0	14	-23.2	36.1	2.5	0.7	158.	41.9	1	151.	63.6	-16.9	32.5	-8.	*POR0133D	-8.	*LIE0253D	11.	*MRC0209D	14
32	LIE0253D	-28.0	14	9.3	47.0	0.8	0.8	0.	46.2	2	61.	64.1	9.3	47.1	2.	*DDR0216D	6.	*BEL0018D	10.	*AZR0134D	11
33	POR0133D	-28.0	14	-8.0	39.3	1.0	0.6	101.	46.6	1	53.	63.8	-8.3	42.1	-8.	*AZR0134D	-8.	*LIE0253D	2.	*IRL0211D	16
34	BEL0018D	-16.0	14	4.3	50.3	0.7	0.6	160.	48.0	1	39.	64.0	6.4	50.3	-2.	*DDR0216D	1.	*LIE0253D	3.	*D 0087A	8
35	DDR0216D	-10.0	14	12.2	52.0	0.9	0.6	154.	46.9	2	51.	64.0	9.9	51.4	-2.	*BEL0018D	2.	*LIE0253D	4.	*D 0087A	5
36	ALB0296D	-4.0	14	19.5	41.1	0.6	0.6	0.	48.7	1	33.	63.8	19.8	42.6	-8.	*SDN0231D	-7.	*ROU0136D	6.	*EGY0026D	16
37	SDN0231D	-4.0	14	30.0	12.4	2.0	1.4	146.	39.8	1	241.	63.6	22.0	13.0	-2.	*ALB0296D	-2.	*EGY0026D	13.	*CME0300D	18
38	AFS0024D	2.0	14	27.0	-26.0	1.8	0.8	33.	42.7	2	124.	63.6	27.0	-29.1	3.	*LSO0305D	4.	*NMB0025D	13.	*TGK0225D	20
39	TGK0225D	8.0	14	34.3	-5.5	2.2	1.6	121.	38.8	1	297.	63.5	30.5	-1.0	3.	*RRW0310D	5.	*BDI0270D	9.	*SDN0231D	20
40	SYR0229D	14.0	14	38.0	34.5	1.0	0.6	19.	46.6	2	52.	63.7	42.2	37.2	3.	*IRQ0256D	4.	*YEM0266D	14.	*TGK0225D	19
41	REU0097D	20.0	14	55.1	-19.3	1.3	0.8	110.	44.1	1	92.	63.7	54.7	-15.7	6.	*URS0061D	9.	*MDG0236D	11.	*TGK0225D	15
42	URS0061D	20.0	14	24.4	56.5	0.8	0.6	5.	47.4	1	46.	64.0	21.0	56.8	0.	*REU0097D	4.	*DDR0216D	5.	*LIE0253D	8
43	BHR0255D	26.0	14	50.3	26.1	0.6	0.6	0.	48.7	2	31.	63.6	59.3	22.3	-18.	*OMA0124D	-14.	*OMA0123D	-14.	*AFG0246D	-5
44	AFG0246D	50.0	14	64.1	33.2	1.3	1.2	64.	42.3	2	135.	63.6	65.7	37.6	6.	*URS0069A	7.	*URS0077D	24.	*IND0043C	25
45	IND0043C	56.0	14	77.4	10.5	1.4	1.0	40.	42.8	1	116.	63.4	80.3	13.5	9.	*IND0044D	14.	*IND0044C	14.	*IND0048C	21
46	IND0048C	68.0	14	86.0	25.0	1.5	0.9	164.	42.9	1	115.	63.5	88.6	28.2	-1.	*CHN0155D	2.	*CHN0155C	3.	*IND0044D	18
47	LAO0284D	74.0	14	103.5	18.0	1.8	0.6	130.	43.9	2	93.	63.6	105.5	14.0	3.	*CHN0162B	4.	*MLA0227C	20.	*IND0048C	21
48	MLA0227C	80.0	14	102.1	4.0	1.4	0.6	115.	45.0	1	70.	63.4	98.8	6.2	3.	*INS0028B	5.	*CHN0162B	10.	*IND0048C	16
49	INS0034B	86.0	14	121.4	-8.5	1.5	0.9	3.	43.2	2	111.	63.6	116.0	-8.9	9.	*INS0032B	13.	*INS0031B	15.	*CHN0162B	20
50	CHN0162B	92.0	14	115.2	21.3	2.7	1.7	45.	37.7	1	389.	63.6	110.0	15.0	6.	*LAO0284D	7.	*MLA0227C	21.	*KOR0112D	22
51	KOR0112D	98.0	14	128.1	35.4	1.3	0.9	8.	43.6	2	106.	63.8	126.3	33.1	3.	*CHN0162B	4.	*J 0111D	16.	*J 0111C	16
52	AUS0011C	104.0	14	133.3	-18.4	2.5	1.3	80.	39.1	1	280.	63.6	135.6	-12.0	4.	*INS0036B	8.	*PNG0271A	11.	*AUS0010C	14
53	URS0077D	110.0	14	113.4	59.1	2.1	1.8	31.	38.5	2	366.	64.1	125.0	55.0	9.	*J 0111D	14.	*J 0111C	14.	*KOR0112D	19
54	PNG0271A	128.0	14	148.0	-6.4	2.8	2.1	155.	36.7	2	474.	63.4	154.0	-12.0	5.	*AUS0320A	8.	*AUS0318A	8.	*NCL0100D	21

Canal **14** suite - Channel **14** cont. - Canal **14** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
55	NCL0100D	140.0	14	166.0	-21.0	1.1	0.7	146.	45.1	1	70.	63.6	164.0	-19.7	11.	*PNG0271A 12. *	*NHB0128D 17. *	*AUS0011C 27 *
56	CKH0052D	158.0	14	-160.1	-19.3	0.9	0.6	155.	46.9	2	49.	63.8	-160.0	-21.3	15.	*NZL0055D 18. *	*OCE0101D 20. *	*PNG0271A 23 *

Canal **15** - Channel **15** - Canal **15**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
29	SEN0222D	-34.0	15	-14.4	13.4	1.2	0.9	139.	44.0	1	88.	63.5	-14.7	17.7	-2.	*MRC0209D 1. *	*CPV0301D 4. *	*MLI0118D 8 *
30	GHA0108D	-28.0	15	-1.3	7.5	1.5	1.0	101.	42.7	2	122.	63.5	-2.9	11.0	4.	*MLI0118D 6. *	*LIE0253D 15. *	*STP0241D 15 *
31	MRC0209D	-22.0	15	-8.4	29.4	2.4	1.3	43.	39.4	1	264.	63.6	-6.0	36.0	5.	*POR0133D 7. *	*STP0241D 14. *	*ROU0136D 19 *
32	STP0241D	-22.0	15	6.4	0.5	0.6	0.6	0.	48.7	2	30.	63.5	7.4	1.7	-2.	*CME0300D 1. *	*MRC0209D 5. *	*GHA0108D 7 *
33	D 0087A	-16.0	15	9.3	50.3	1.4	0.7	149.	44.4	2	92.	64.0	10.0	54.8	-1.	*NOR0120B 2. *	*DDR0216D 6. *	*HOL0213D 8 *
34	CME0300D	-10.0	15	12.4	5.4	2.5	1.2	93.	39.6	1	245.	63.5	14.2	13.2	-5.	*ROU0136D -5. *	*EGY0026D 17. *	*CAF0258D 18 *
35	ROU0136D	-10.0	15	24.3	45.2	1.3	0.8	171.	44.1	1	99.	64.0	28.5	43.7	-8.	*CME0300D -7. *	*EGY0026D 7. *	*TCH0144D 16 *
36	EGY0026D	-4.0	15	30.3	27.5	2.6	1.6	135.	38.1	2	366.	63.8	31.2	22.0	-6.	*NMB0025D -6. *	*SDN0232D 8. *	*SDN0231D 15 *
37	NMB0025D	-4.0	15	17.4	-21.0	2.2	1.6	54.	38.6	2	311.	63.5	25.0	-17.6	-9.	*EGY0026D -9. *	*CME0300D 18. *	*LSO0305D 18 *
38	BDI0270D	2.0	15	29.2	-3.2	0.6	0.6	0.	48.7	1	30.	63.5	29.5	-4.2	2.	*NOR0120B 5. *	*TGK0225D 7. *	*KEN0249D 15 *
39	NOR0120B	2.0	15	14.0	64.3	1.5	0.9	18.	42.7	1	142.	64.3	7.6	58.0	3.	*D 0087A 5. *	*BDI0270D 11. *	*EGY0026D 21 *
40	LSO0305D	8.0	15	28.0	-29.3	0.6	0.6	0.	48.7	2	31.	63.6	29.5	-29.4	2.	*AFS0023A 6. *	*AFS0024D 8. *	*NMB0025D 8 *
41	AFI0099D	14.0	15	42.3	11.2	0.6	0.6	0.	48.7	1	31.	63.6	43.5	12.5	5.	*YMS0267D 7. *	*EGY0026D 16. *	*KEN0249D 16 *
42	MDG0236D	20.0	15	46.3	-18.5	2.7	1.1	64.	39.6	2	249.	63.6	49.0	-12.3	11.	*REU0097D 14. *	*URS0059D 20. *	*OMA0124D 22 *
43	OMA0124D	26.0	15	54.0	22.5	2.2	1.4	128.	39.2	1	275.	63.6	56.0	28.0	6.	*EGY0026D 13. *	*QAT0247D 13. *	*IRN0109D 14 *
44	PAK0210A	38.0	15	71.5	30.4	0.9	0.6	102.	46.5	1	54.	63.8	75.2	32.2	-1.	*CHN0155D 1. *	*IND0044D 6. *	*IRN0109D 11 *
45	IND0044D	56.0	15	80.0	23.2	2.0	1.3	150.	40.1	2	224.	63.6	78.2	26.9	3.	*CHN0155D 4. *	*PAK0210A 21. *	*IND0048D 21 *
46	CHN0155D	62.0	15	88.3	31.4	3.2	1.2	164.	38.4	1	343.	63.7	86.0	28.0	-1.	*IND0044D 2. *	*IND0048D 7. *	*IND0048C 7 *
47	IND0039D	68.0	15	72.4	11.1	0.9	0.8	105.	45.7	2	59.	63.4	73.0	8.3	7.	*IND0043D 14. *	*IND0043C 14. *	*MLD0306B 15 *
48	INS0028B	74.0	15	99.0	1.2	1.9	0.8	130.	42.4	1	127.	63.5	102.2	1.8	-19.	*SNG0151D -19. *	*MLA0227C 3. *	*INS0031B 7 *
49	CHN0163A	80.0	15	116.1	39.5	0.9	0.6	120.	46.5	2	55.	64.0	115.4	36.1	-2.	*CHN0171A -1. *	*J 0111D 8. *	*CHN0155D 11 *
50	INS0031B	86.0	15	110.5	-1.2	1.3	1.0	159.	43.3	1	105.	63.5	110.3	-3.0	9.	*INS0028B 13. *	*PHL0285C 17. *	*INS0034B 17 *

Canal **15** suite - Channel **15** cont. - Canal **15** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
51	CHN0171A	92.0	15	116.5	32.0	0.9	0.6	136.	46.8	2	49.	63.7	116.1	34.6	-2.	*CHN0163A	-0.	*J 0111D	7.	*CHN0155D	10
52	INS0035B	98.0	15	128.1	-1.5	1.8	1.1	77.	41.3	1	168.	63.6	124.5	-1.9	12.	*PHL0285C	20.	*J 0111D	20.	*AUS0012C	20
53	AUS0012C	104.0	15	135.2	-30.1	1.8	1.4	45.	40.2	2	225.	63.8	138.6	-34.9	2.	*AUS0318A	4.	*AUS0013C	9.	*AUS0011C	14
54	J 0111D	110.0	15	134.4	31.5	3.4	2.9	46.	34.3	1	869.	63.7	123.7	24.3	7.	*PNG0131B	8.	*CHN0155D	17.	*CHN0162B	19
55	AUS0318A	128.0	15	145.0	-38.0	1.3	1.3	0.	42.0	2	150.	63.7	142.2	-34.2	1.	*AUS0012C	3.	*PNG0271A	9.	*AUS0317A	9
56	WAL0102D	140.0	15	-177.2	-13.2	0.8	0.6	66.	47.5	2	43.	63.8	-176.6	-13.3	6.	*SMO0057D	6.	*J 0111D	27.	*AUS0318A	28
57	SMO0057D	150.0	15	-172.0	-13.4	0.6	0.6	0.	48.7	1	32.	63.7	-172.5	-13.6	4.	*WAL0102D	4.	*TON0215D	25.	*J 0111D	28

Canal **16** - Channel **16** - Canal **16**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
30	MLI0118D	-34.0	16	-6.5	13.2	1.9	1.1	170.	41.0	2	181.	63.6	-2.5	23.3	-10.	*MTN0288E	-5.	*TUN0150D	-1.	*MCO0117A	1
31	MCO0117A	-28.0	16	7.2	43.4	1.3	0.6	150.	45.3	1	74.	64.0	-5.0	48.5	-12.	*IRL0211E	-7.	*HOL0213D	-7.	*F 0094A	-2
32	ISL0049D	-22.0	16	-19.2	64.5	1.0	0.6	4.	46.5	2	60.	64.3	-13.5	65.1	-4.	*TUN0150D	-4.	*URS0059D	16.	*TCH0144D	21
33	TUN0150D	-22.0	16	9.2	34.0	1.3	0.6	115.	45.2	2	73.	63.8	12.0	35.3	-4.	*ISL0049D	-3.	*I 0082E	4.	*MCO0117A	9
34	GNE0303D	-16.0	16	10.3	1.4	0.6	0.6	0.	48.7	1	30.	63.5	11.3	2.4	2.	*HOL0213D	5.	*CME0300D	5.	*CAF0258D	20
35	HOL0213D	-16.0	16	5.0	51.3	0.7	0.6	165.	48.0	1	40.	64.0	7.2	52.2	0.	*TCH0144D	6.	*MCO0117A	7.	*GNE0303D	8
36	CAF0258D	-10.0	16	-20.2	6.2	2.6	1.5	14.	38.2	2	327.	63.4	23.2	11.0	-22.	*TCH0144D	-21.	*SDN0232D	-15.	*CME0300D	-6
37	TCH0144D	-10.0	16	17.1	49.1	1.3	0.6	167.	45.3	2	74.	64.0	12.1	50.3	-7.	*CAF0258D	-6.	*D 0087A	5.	*HOL0213D	6
38	SDN0232D	-4.0	16	30.0	18.4	1.7	1.4	134.	40.4	1	212.	63.7	35.5	23.0	4.	*EGY0026D	6.	*CAF0258D	18.	*KEN0249D	18
39	AFS0023A	2.0	16	31.0	-27.4	1.2	0.6	46.	45.8	2	62.	63.7	30.2	-31.2	2.	*LSO0305D	4.	*ISR0110D	7.	*NMB0025D	16
40	ISR0110D	2.0	16	34.4	31.3	0.6	0.6	0.	48.7	2	33.	63.8	34.8	29.5	-1.	*EGY0026D	3.	*AFS0023A	4.	*SDN0232D	7
41	KEN0249D	8.0	16	37.5	0.4	2.1	1.4	95.	39.4	1	262.	63.6	41.9	3.9	7.	*YEM0266E	10.	*YMS0267D	17.	*SDN0232D	19
42	YMS0267D	14.0	16	47.1	15.4	1.6	1.0	25.	42.4	2	134.	63.7	43.2	12.4	2.	*YEM0266E	7.	*AFI0099D	7.	*KEN0249D	9
43	URS0059D	20.0	16	36.0	47.0	3.7	1.5	153.	36.8	1	514.	63.9	22.0	48.4	-1.	*TCH0144D	-0.	*MCO0117A	11.	*IRN0109D	17
44	QAT0247D	26.0	16	51.1	25.1	0.6	0.6	0.	48.7	2	31.	63.6	51.1	26.2	-1.	*IRN0109D	0.	*OMA0124D	9.	*OMA0123E	13
45	IRN0109D	38.0	16	54.3	33.0	3.5	1.6	150.	36.8	2	489.	63.7	46.1	33.1	5.	*URS0059D	6.	*QAT0247D	21.	*EGY0026D	24

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
46	MLD0306B	44.0	16	72.3	4.0	2.3	0.6	96.	42.9	1	115.	63.5	72.5	7.0	1.	*IND0043D	3.	*URS0073B	8.	*CLN0219D	18
47	URS0073B	44.0	16	55.2	64.1	1.4	0.6	6.	45.0	1	84.	64.3	59.2	61.6	-2.	*MLD0306B	-2.	*URS0059D	9.	*IRN0109D	17
48	IND0043D	56.0	16	77.4	10.5	1.4	1.0	40.	42.8	1	117.	63.5	77.5	8.1	8.	*MLD0306B	11.	*CLN0219D	16.	*IND0044D	17
49	CHN0186A	62.0	16	103.0	30.1	1.8	0.9	146.	42.0	2	155.	63.9	110.0	31.8	2.	*CHN0178A	3.	*CHN0155D	11.	*BRM0298A	14
50	IND0048D	68.0	16	86.0	25.0	1.5	0.9	164.	42.9	1	116.	63.6	88.6	28.2	-4.	*BGD0220D	-2.	*CHN0155D	3.	*BRM0298A	9
51	BGD0220D	74.0	16	90.0	24.0	1.2	0.7	138.	45.0	2	71.	63.5	88.0	24.0	-3.	*IND0048D	-2.	*IND0046A	9.	*SNG0151D	16
52	SNG0151D	74.0	16	103.4	1.2	0.6	0.6	0.	48.7	1	31.	63.6	102.4	0.4	-18.	*INS0029C	-15.	*INS0028B	-15.	*BGD0220D	10
53	CHN0178A	80.0	16	111.5	27.4	1.1	0.6	121.	46.2	1	57.	63.7	109.2	29.1	-0.	*CHN0186A	0.	*CHN0163A	15.	*PHL0285C	17
54	PHL0285C	86.0	16	122.0	11.1	2.9	1.6	102.	37.5	2	411.	63.7	120.0	5.0	5.	*MLA0228D	7.	*INS0032C	11.	*INS0031B	17
55	CHN0160B	92.0	16	123.3	46.0	2.0	1.4	145.	39.7	1	270.	64.0	128.3	41.4	-4.	*KRE0286C	-3.	*CHN0169A	13.	*PHL0285C	18
56	KRE0286C	98.0	16	127.3	42.3	1.3	0.6	134.	44.8	2	81.	63.9	126.6	38.0	-1.	*CHN0160B	-0.	*CHN0169A	10.	*J 0111E	15
57	AUS0013C	104.0	16	144.2	-38.3	1.5	0.8	45.	43.5	1	113.	64.0	142.2	-34.2	0.	*AUS0317A	2.	*AUS0012C	9.	*PNG0131B	12
58	PNG0131B	110.0	16	147.3	-6.3	2.3	2.0	139.	37.5	1	413.	63.7	154.0	-12.0	4.	*J 0111E	8.	*J 0111D	8.	*AUS0013C	12
59	AUS0317A	128.0	16	135.4	-30.1	2.0	1.6	160.	39.1	1	283.	63.6	138.6	-34.9	2.	*AUS0013C	3.	*AUS0318A	10.	*AUS0320B	11
60	URS0081B	140.0	16	169.0	65.0	1.5	0.6	168.	44.7	1	92.	64.3	158.1	67.8	6.	*CHN0160B	6.	*KRE0286C	24.	*PNG0131B	27
61	CKN0053D	158.0	16	-162.3	-11.0	1.3	0.6	30.	45.3	2	70.	63.8	-165.0	-10.5	20.	*TON0215D	21.	*AUS0317A	28.	*SMO0057D	36
62	TON0215D	170.0	16	-175.0	-19.0	1.4	0.6	70.	45.1	2	68.	63.5	-175.6	-15.6	11.	*PNG0131B	14.	*WAL0102D	17.	*CKN0053D	18

Canal **17** - Channel **17** - Canal **17**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
34	GUI0192E	-34.0	17	-11.1	10.1	1.4	1.0	141.	42.8	1	118.	63.5	-14.5	11.5	6.	*CPV0301E	8.	*MLI0118D	11.	*CAF0258D	20
35	DAH0233E	-28.0	17	2.1	9.1	1.1	0.6	87.	45.6	2	64.	63.6	1.0	10.4	2.	*IRL0211E	4.	*MLI0118D	10.	*LIE0253E	16
36	IRL0211E	-28.0	17	-7.5	53.2	0.8	0.6	62.	47.3	2	47.	64.1	-10.3	54.3	-4.	*DAH0233E	-1.	*F 0094A	1.	*LIE0253E	6
37	MTN0288E	-22.0	17	-8.0	24.0	1.6	0.8	152.	43.2	1	109.	63.5	-5.6	20.0	10.	*I 0082E	18.	*GUI0192E	18.	*DAH0233E	19
38	I 0082E	-16.0	17	12.2	40.4	2.3	1.0	142.	40.6	2	216.	63.9	6.6	45.1	-1.	*F 0094A	0.	*LIE0253E	12.	*BEL0018E	14
39	RHS0135E	-4.0	17	29.0	-18.3	1.3	0.9	87.	43.8	2	97.	63.7	31.2	-22.2	9.	*AFS0023A	11.	*SDN0231E	22.	*SDN0232D	23
40	RRW0310E	2.0	17	30.0	-1.2	0.6	0.6	0.	48.7	1	31.	63.6	29.8	-4.5	-10.	*S 0138B	-9.	*KEN0249D	2.	*RHS0135E	7
41	S 0138B	2.0	17	16.0	61.0	1.1	0.9	144.	44.2	1	100.	64.2	13.3	55.3	4.	*I 0082E	8.	*RRW0310E	9.	*DDR0216E	14
42	F 0094A	8.0	17	3.1	45.5	2.3	0.9	150.	41.1	2	191.	63.9	9.5	41.2	1.	*I 0082E	1.	*MCO0117A	18.	*S 0138B	19
43	YEM0266E	14.0	17	46.3	17.3	2.9	2.1	84.	36.3	1	549.	63.7	47.5	16.8	6.	*OMA0123E	9.	*YMS0267D	10.	*F 0094A	23
44	OMA0123E	26.0	17	55.5	21.0	1.5	1.1	98.	42.0	1	146.	63.7	52.0	19.0	-3.	*YEM0266E	-3.	*YMS0267D	16.	*QAT0247D	16
45	PAK0283B	38.0	17	74.4	33.5	1.1	0.9	160.	44.0	1	98.	63.9	72.8	36.7	-4.	*URS0069B	-4.	*YEM0266E	10.	*AFG0245A	12
46	CLN0219D	44.0	17	80.3	7.4	0.6	0.6	0.	48.7	2	32.	63.7	80.0	10.0	-8.	*URS0069B	-8.	*IND0043D	8.	*MLD0306B	10
47	URS0069B	44.0	17	70.5	38.3	1.1	0.6	163.	46.1	2	60.	63.9	75.1	37.3	-5.	*PAK0283B	-3.	*CLN0219D	0.	*AFG0245A	5
48	IND0040A	56.0	17	73.0	24.4	1.8	1.3	44.	40.6	2	200.	63.6	73.5	30.0	-1.	*PAK0283B	-0.	*YEM0266E	10.	*AFG0245A	13
49	BRM0298A	62.0	17	96.3	19.2	3.5	1.2	110.	38.1	1	366.	63.7	97.5	28.3	4.	*CHN0157A	8.	*CHN0186A	9.	*IND0046A	19
50	IND0046A	68.0	17	84.0	20.0	1.3	0.8	43.	44.1	2	88.	63.5	87.5	21.7	1.	*BRM0298A	4.	*BGD0220D	8.	*IND0048D	8
51	INS0029C	74.0	17	104.0	-2.4	1.4	1.3	83.	41.8	1	150.	63.6	104.3	1.0	-16.	*SNG0151D	-16.	*BRM0298A	6.	*MLA0227D	7
52	MLA0228D	80.0	17	114.3	3.4	2.0	0.9	45.	41.7	2	157.	63.7	110.2	6.0	-1.	*INS0029C	5.	*INS0032C	5.	*BRM0298A	7
53	INS0032C	86.0	17	115.5	-0.2	1.7	0.9	78.	42.4	1	131.	63.6	116.0	4.3	-4.	*MLA0228D	-3.	*PHL0285C	10.	*INS0029C	18
54	CHN0169A	92.0	17	118.4	36.4	1.0	0.6	17.	46.6	2	52.	63.8	122.8	38.4	0.	*J 0111E	4.	*CHN0160B	8.	*KRE0286C	8
55	INS0036C	98.0	17	135.0	-5.1	2.0	1.4	85.	39.7	1	249.	63.7	142.5	-8.0	2.	*AUS0014C	3.	*PNG0131B	10.	*PNG0271B	15
56	AUS0014C	104.0	17	145.1	-21.4	2.3	1.5	85.	38.9	2	315.	63.9	142.2	-10.6	-3.	*INS0036C	-3.	*PNG0131B	12.	*J 0111E	15
57	J 0111E	110.0	17	134.4	31.5	3.4	2.9	46.	34.3	1	875.	63.7	123.7	24.3	7.	*PNG0131B	9.	*CHN0162C	19.	*URS0077E	21
58	AUS0320B	128.0	17	147.1	-32.0	1.9	1.2	15.	40.7	2	200.	63.7	153.0	-30.0	1.	*AUS0014C	3.	*PNG0271B	8.	*AUS0317A	16

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
26	CPV0301E	-34.0	18	-24.0	15.4	0.6	0.6	0.	48.7	1	30.	63.4	-22.9	16.8	-1.	*SEN0222E	-0.	*GUI0192E	7.	*AZR0134E	13
27	AZR0134E	-28.0	18	-23.2	36.1	2.5	0.7	158.	41.9	1	153.	63.7	-16.9	32.5	-8.	*POR0133E	-8.	*LIE0253E	11.	*MRC0209E	15
28	LIE0253E	-28.0	18	9.3	47.0	0.8	0.8	0.	46.2	2	62.	64.1	9.3	47.1	2.	*DDR0216E	6.	*BEL0018E	10.	*AZR0134E	11
29	POR0133E	-28.0	18	-8.0	39.3	1.0	0.6	101.	46.6	1	53.	63.8	-8.3	42.1	-8.	*AZR0134E	-8.	*LIE0253E	2.	*IRL0211E	16
30	BEL0018E	-16.0	18	4.3	50.3	0.7	0.6	160.	48.0	1	40.	64.0	6.4	50.3	-2.	*DDR0216E	1.	*LIE0253E	3.	*D 0087B	8
31	DDR0216E	-10.0	18	12.2	52.0	0.9	0.6	154.	46.9	2	52.	64.1	9.9	51.4	-2.	*BEL0018E	2.	*LIE0253E	4.	*D 0087B	5
32	ALB0296E	-4.0	18	19.5	41.1	0.6	0.6	0.	48.7	1	33.	63.9	19.8	42.6	-8.	*SDN0231E	-7.	*ROU0136E	6.	*EGY0026E	16
33	SDN0231E	-4.0	18	30.0	12.4	2.0	1.4	146.	39.8	1	244.	63.7	22.0	13.0	-2.	*ALB0296E	-2.	*EGY0026E	13.	*CME0300E	18
34	SYR0229E	14.0	18	38.0	34.5	1.0	0.6	19.	46.6	2	53.	63.8	42.2	37.2	10.	*YEM0266E	14.	*EGY0026E	21.	*URS0061E	23
35	REU0097E	20.0	18	55.1	-19.3	1.3	0.8	110.	44.1	1	93.	63.8	54.7	-15.7	7.	*URS0061E	9.	*MDG0236E	11.	*SDN0231E	24
36	URS0061E	20.0	18	24.4	56.5	0.8	0.6	5.	47.4	1	46.	64.1	21.0	56.8	0.	*REU0097E	4.	*DDR0216E	5.	*LIE0253E	8
37	AFG0245A	50.0	18	70.4	35.1	1.0	0.9	27.	44.7	2	80.	63.8	74.9	37.1	4.	*URS0069B	5.	*PAK0283B	14.	*IND0040B	19
38	IND0045A	56.0	18	76.3	19.4	1.6	1.0	43.	42.2	1	137.	63.6	74.4	22.0	2.	*IND0040B	6.	*IND0040A	6.	*CHN0157A	19
39	CHN0157A	62.0	18	102.3	28.1	2.4	1.3	120.	39.3	2	288.	63.9	101.7	21.3	-4.	*LAO0284E	-3.	*BRM0298B	9.	*BRM0298A	9
40	CBG0299A	68.0	18	104.4	12.3	0.8	0.7	42.	46.7	1	50.	63.7	107.5	12.5	-10.	*IND0047A	-9.	*LAO0284E	-1.	*CHN0162C	3
41	IND0047A	68.0	18	93.0	10.4	1.5	0.8	95.	43.5	1	102.	63.5	93.8	14.8	-10.	*CBG0299A	-9.	*BRM0298B	5.	*BRM0298A	5
42	LAO0284E	74.0	18	103.5	18.0	1.8	0.6	130.	43.9	2	94.	63.7	105.5	14.0	-4.	*CBG0299A	-3.	*CHN0162C	4.	*CHN0157A	6
43	MLA0227D	80.0	18	102.1	4.0	1.4	0.6	115.	45.0	1	71.	63.5	98.8	6.2	0.	*IND0047A	5.	*INS0028C	5.	*CHN0162C	10
44	INS0034C	86.0	18	121.4	-8.5	1.5	0.9	3.	43.2	2	112.	63.7	116.0	-8.9	9.	*INS0032C	13.	*INS0031C	15.	*CHN0162C	20
45	CHN0162C	92.0	18	115.2	21.3	2.7	1.7	45.	37.7	1	394.	63.6	110.0	15.0	2.	*LAO0284E	7.	*CBG0299A	7.	*CHN0157A	11
46	KOR0112E	98.0	18	128.1	35.4	1.3	0.9	8.	43.6	2	107.	63.9	126.3	33.1	2.	*CHN0162C	4.	*CHN0161A	9.	*CHN0157A	14
47	AUS0015C	104.0	18	146.5	-31.3	1.6	1.0	45.	42.2	1	151.	64.0	153.0	-30.0	7.	*AUS0014C	9.	*AUS0010D	16.	*AUS0320B	18
48	URS0077E	110.0	18	113.4	59.1	2.1	1.8	31.	38.5	2	371.	64.2	117.8	49.4	8.	*CHN0157A	13.	*J 0111F	15.	*J 0111E	15
49	PNG0271B	128.0	18	148.0	-6.4	2.8	2.1	155.	36.7	2	480.	63.5	154.0	-12.0	5.	*AUS0320B	8.	*AUS0318B	8.	*AUS0015C	24
50	TKL0058A	158.0	18	-172.2	-9.1	0.6	0.6	0.	48.7	2	31.	63.6	-172.4	-8.6	26.	*PNG0271B	27.	*URS0077E	34.	*J 0111F	43

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
26	SEN0222E	-34.0	19	-14.4	13.4	1.2	0.9	139.	44.0	1	89.	63.5	-14.7	17.7	-2.	*MRC0209E	1.	*CPV0301E	4.	*MLI0118E	8
27	GHA0108E	-28.0	19	-1.3	7.5	1.5	1.0	101.	42.7	2	123.	63.6	-2.9	11.0	4.	*MLI0118E	6.	*LIE0253E	15.	*STP0241E	15
28	MRC0209E	-22.0	19	-8.4	29.4	2.4	1.3	43.	39.4	1	267.	63.6	-6.0	36.0	5.	*POR0133E	7.	*STP0241E	14.	*ROU0136E	19
29	STP0241E	-22.0	19	6.4	0.5	0.6	0.6	0.	48.7	2	31.	63.6	7.4	1.7	-2.	*CME0300E	1.	*MRC0209E	5.	*GHA0108E	7
30	D 0087B	-16.0	19	9.3	50.3	1.4	0.7	149.	44.4	2	93.	64.1	10.0	54.8	-1.	*NOR0120C	2.	*DDR0216E	6.	*HOL0213E	8
31	CME0300E	-10.0	19	12.4	5.4	2.5	1.2	93.	39.6	1	248.	63.5	14.2	13.2	-5.	*ROU0136E	-5.	*EGY0026E	17.	*CAF0258E	18
32	ROU0136E	-10.0	19	24.3	45.2	1.3	0.8	171.	44.1	1	100.	64.1	28.5	43.7	-8.	*CME0300E	-7.	*EGY0026E	7.	*TCH0144E	16
33	EGY0026E	-4.0	19	30.3	27.5	2.6	1.6	135.	38.1	2	371.	63.8	31.2	22.0	7.	*SDN0232E	8.	*SDN0231E	15.	*CME0300E	22
34	BDI0270E	2.0	19	29.2	-3.2	0.6	0.6	0.	48.7	1	31.	63.6	29.5	-4.2	4.	*NOR0120C	5.	*KEN0249E	15.	*EGY0026E	21
35	NOR0120C	2.0	19	14.0	64.3	1.5	0.9	18.	42.7	1	144.	64.3	7.6	58.0	3.	*D 0087B	5.	*BDI0270E	11.	*EGY0026E	21
36	LSO0305E	8.0	19	28.0	-29.3	0.6	0.6	0.	48.7	2	32.	63.7	29.5	-29.4	5.	*AFS0023B	6.	*MDG0236E	21.	*KEN0249E	22
37	AFI0099E	14.0	19	42.3	11.2	0.6	0.6	0.	48.7	1	31.	63.6	43.5	12.5	5.	*YMS0267E	7.	*EGY0026E	16.	*KEN0249E	16
38	MDG0236E	20.0	19	46.3	-18.5	2.7	1.1	64.	39.6	2	252.	63.6	49.0	-12.3	12.	*REU0097E	14.	*OMA0124E	22.	*EGY0026E	25
39	OMA0124E	26.0	19	54.0	22.5	2.2	1.4	128.	39.2	1	279.	63.7	56.0	28.0	10.	*EGY0026E	13.	*PAK0210B	21.	*MDG0236E	21
40	PAK0210B	38.0	19	71.5	30.4	0.9	0.6	102.	46.5	1	54.	63.9	71.8	28.0	1.	*IND0040B	1.	*OMA0124E	13.	*EGY0026E	21
41	IND0040B	56.0	19	73.0	24.4	1.8	1.3	44.	40.6	2	202.	63.6	73.5	30.0	-2.	*PAK0210B	-2.	*AFG0245B	13.	*AFG0245A	13
42	BRM0298B	62.0	19	96.3	19.2	3.5	1.2	110.	38.1	1	369.	63.8	101.0	21.7	3.	*CHN0157B	7.	*CHN0157A	8.	*LAO0284E	14
43	IND0046B	68.0	19	84.0	20.0	1.3	0.8	43.	44.1	2	88.	63.5	87.5	21.7	2.	*BRM0298B	4.	*BGD0220E	8.	*IND0047B	16
44	INS0028C	74.0	19	99.0	1.2	1.9	0.8	130.	42.4	1	129.	63.5	97.7	5.7	-1.	*BRM0298B	-1.	*MLA0227D	11.	*IND0047B	13
45	CHN0164A	80.0	19	112.1	37.3	0.8	0.6	91.	47.7	2	42.	63.9	113.6	35.6	-4.	*CHN0161A	-3.	*J 0111F	8.	*CHN0181A	15
46	INS0031C	86.0	19	110.5	-1.2	1.3	1.0	159.	43.3	1	107.	63.5	109.6	2.0	8.	*BRM0298B	12.	*PHL0285D	14.	*CHN0161A	19
47	CHN0161A	92.0	19	118.1	31.2	2.0	1.5	96.	39.5	2	269.	63.8	115.4	36.0	-2.	*CHN0164A	-0.	*J 0111F	9.	*CHN0160C	11
48	INS0035C	98.0	19	128.1	-1.5	1.8	1.1	77.	41.3	1	171.	63.6	124.5	-1.9	10.	*AUS0010D	14.	*PHL0285D	20.	*J 0111F	20
49	AUS0010D	104.0	19	121.4	-24.5	3.4	1.9	56.	36.1	2	557.	63.6	126.6	-31.0	9.	*AUS0011D	14.	*AUS0015C	17.	*J 0111F	18
50	J 0111F	110.0	19	134.4	31.5	3.4	2.9	46.	34.3	1	881.	63.8	123.7	24.3	4.	*CHN0161A	7.	*PNG0131C	8.	*CHN0162C	19
51	AUS0318B	128.0	19	145.0	-38.0	1.3	1.3	0.	42.0	2	152.	63.8	142.2	-34.2	6.	*PNG0271B	9.	*AUS0317B	9.	*AUS0015C	19

Canal **20** - Channel **20** - Canal **20**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
27	MLI0118E	-34.0	20	-6.5	13.2	1.9	1.1	170.	41.0	2	183.	63.6	-2.5	23.3	-8.	*TUN0150E -1. *	*MCO0117B 1. *	*SDN0232E 3 *
28	MCO0117B	-28.0	20	7.2	43.4	1.3	0.6	150.	45.3	1	75.	64.1	-5.0	48.5	-14.	*G 0027A-13. *	*HOL0213E -7. *	*ISL0049E 1 *
29	ISL0049E	-22.0	20	-19.2	64.5	1.0	0.6	4.	46.5	2	61.	64.3	-13.5	65.1	-4.	*TUN0150E -4. *	*G 0027A 14. *	*NIG0119A 14 *
30	TUN0150E	-22.0	20	9.2	34.0	1.3	0.6	115.	45.2	2	74.	63.9	12.0	35.3	-4.	*ISL0049E -3. *	*NIG0119A 7. *	*MCO0117B 9 *
31	GNE0303E	-16.0	20	10.3	1.4	0.6	0.6	0.	48.7	1	31.	63.6	11.3	2.4	2.	*HOL0213E 5. *	*CME0300E 6. *	*CYP0086A 18 *
32	HOL0213E	-16.0	20	5.0	51.3	0.7	0.6	165.	48.0	1	40.	64.1	7.2	52.2	0.	*TCH0144E 6. *	*MCO0117B 7. *	*GNE0303E 8 *
33	CAF0258E	-10.0	20	-20.2	6.2	2.6	1.5	14.	38.2	2	331.	63.4	23.2	11.0	-22.	*TCH0144E-21. *	*SDN0232E-15. *	*ZAI0146A -6 *
34	TCH0144E	-10.0	20	17.1	49.1	1.3	0.6	167.	45.3	2	75.	64.1	12.1	50.3	-7.	*CAF0258E -6. *	*D 0087B 5. *	*AUT0016A 5 *
35	SDN0232E	-4.0	20	30.0	18.4	1.7	1.4	134.	40.4	1	214.	63.8	36.8	16.0	4.	*YMS0267E 10. *	*EGY0026E 11. *	*KEN0249E 11 *
36	AFS0023B	2.0	20	31.0	-27.4	1.2	0.6	46.	45.8	2	62.	63.8	30.2	-31.2	3.	*LSO0305E 4. *	*SWZ0313A 12. *	*KEN0249E 18 *
37	KEN0249E	8.0	20	37.5	0.4	2.1	1.4	95.	39.4	1	266.	63.6	41.9	3.9	6.	*ETH0092A 7. *	*YMS0267E 17. *	*SDN0232E 20 *
38	YMS0267E	14.0	20	47.1	15.4	1.6	1.0	25.	42.4	2	136.	63.7	43.2	12.4	1.	*ETH0092A 5. *	*AFI0099E 7. *	*KEN0249E 9 *
39	URS0061F	20.0	20	24.4	56.5	0.8	0.6	5.	47.4	1	47.	64.1	22.8	54.4	4.	*TCH0144E 4. *	*DNK0090A 19. *	*S 0139A 19 *
40	MLD0306C	44.0	20	72.3	4.0	2.3	0.6	96.	42.9	1	117.	63.6	74.0	2.5	4.	*URS0072A 4. *	*IND0045B 21. *	*KEN0249E 25 *
41	URS0072A	44.0	20	73.0	62.3	1.8	0.7	172.	43.2	1	129.	64.4	85.9	61.9	-6.	*MLD0306C -6. *	*AFG0245B 22. *	*IND0045B 24 *
42	AFG0245B	50.0	20	70.4	35.1	1.0	0.9	27.	44.7	2	81.	63.8	69.3	32.0	7.	*PAK0281A 14. *	*IND0040C 15. *	*IND0040B 15 *
43	IND0045B	56.0	20	76.3	19.4	1.6	1.0	43.	42.2	1	137.	63.6	74.4	22.0	2.	*IND0040C 6. *	*IND0040B 6. *	*MLD0306C 14 *
44	CHN0157B	62.0	20	102.3	28.1	2.4	1.3	120.	39.3	2	290.	63.9	105.6	23.2	1.	*CHN0181A 1. *	*BRM0298C 13. *	*BRM0298B 13 *
45	CBG0299B	68.0	20	104.4	12.3	0.8	0.7	42.	46.7	1	50.	63.8	107.5	12.5	-10.	*IND0047B -9. *	*CHN0157B 9. *	*BRM0298C 12 *
46	IND0047B	68.0	20	93.0	10.4	1.5	0.8	95.	43.5	1	103.	63.6	93.8	14.8	-10.	*CBG0299B -9. *	*BRM0298C 5. *	*BRM0298B 5 *
47	BGD0220E	74.0	20	90.0	24.0	1.2	0.7	138.	45.0	2	72.	63.6	92.5	21.5	2.	*CHN0157B 4. *	*IND0047B 12. *	*BRM0298C 13 *
48	CHN0181A	80.0	20	108.2	24.0	1.1	0.8	145.	44.7	1	79.	63.7	104.5	24.5	-1.	*CHN0157B -1. *	*PHL0285D 17. *	*CHN0160C 19 *
49	PHL0285D	86.0	20	122.0	11.1	2.9	1.6	102.	37.5	2	417.	63.7	122.0	21.0	6.	*CHN0161B 13. *	*CHN0161A 13. *	*CHN0157B 14 *
50	CHN0160C	92.0	20	123.3	46.0	2.0	1.4	145.	39.7	1	274.	64.1	128.3	41.4	-4.	*KRE0286D -3. *	*URS0079A 6. *	*CHN0161B 11 *
51	KRE0286D	98.0	20	127.3	42.3	1.3	0.6	134.	44.8	2	82.	64.0	126.6	38.0	-3.	*CHN0160C -0. *	*CHN0161B 7. *	*CHN0161A 7 *
52	AUS0011D	104.0	20	133.3	-18.4	2.5	1.3	80.	39.1	1	286.	63.7	135.6	-12.0	-3.	*PNG0131C -2. *	*INS0036D 8. *	*AUS0010D 14 *

Canal **20** suite - Channel **20** cont. - Canal **20** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
53	PNG0131C	110.0	20	147.3	-6.3	2.3	2.0	139.	37.5	1	418.	63.8	141.0	-2.6	3.	*AUS0011D 8. *	*J 0111G 9. *	*J 0111F 9 *
54	AUS0317B	128.0	20	135.4	-30.1	2.0	1.6	160.	39.1	1	287.	63.6	141.0	-32.1	4.	*AUS0320C 9. *	*AUS0011D 9. *	*AUS0318B 11 *
55	URS0079A	140.0	20	138.2	58.4	2.6	1.5	62.	38.3	1	384.	64.2	130.9	44.8	-3.	*KRE0286D -0. *	*CHN0160C -0. *	*CHN0157B 12 *
56	NIU0054A	158.0	20	-169.5	-19.0	0.6	0.6	0.	48.7	2	32.	63.7	-169.9	-19.0	20.	*PNG0131C 21. *	*AUS0317B 29. *	*URS0079A 35 *

Canal **21** - Channel **21** - Canal **21**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
31	GMB0302A	-34.0	21	-15.1	13.2	0.6	0.6	0.	48.7	1	31.	63.5	-14.2	13.3	8.	*MLI0118E 11. *	*CTI0237A 15. *	*SRL0259A 17 *
32	CTI0237A	-28.0	21	-5.3	7.3	1.6	1.2	102.	41.3	2	166.	63.6	-8.0	10.1	-4.	*G 0027A -3. *	*MLI0118E 7. *	*SRL0259A 13 *
33	G 0027A	-28.0	21	-3.3	53.5	1.6	0.8	149.	42.9	2	134.	64.2	1.3	51.1	-5.	*CTI0237A -5. *	*AUT0016A 10. *	*S 0139A 10 *
34	LBY0280A	-22.0	21	18.5	25.4	2.6	1.7	140.	37.9	1	405.	63.9	25.0	20.0	-1.	*NIG0119A -0. *	*MTN0223A 9. *	*CYP0086A 13 *
35	NIG0119A	-22.0	21	7.1	9.3	1.8	1.3	85.	40.7	2	197.	63.6	5.5	14.0	-12.	*ALG0252A-11. *	*LBY0280A -2. *	*TUN0150E 7 *
36	AUT0016A	-16.0	21	12.1	47.3	1.1	0.7	167.	45.5	2	72.	64.1	17.1	48.0	-2.	*DNK0090A 5. *	*S 0139A 5. *	*TCH0144E 5 *
37	CYP0086A	-16.0	21	33.2	35.0	0.6	0.6	0.	48.7	1	35.	64.2	32.3	34.8	-4.	*LBY0280A -3. *	*ARS0275A 8. *	*F 0093A 11 *
38	BUL0020A	-10.0	21	24.5	42.5	0.9	0.6	163.	46.9	1	52.	64.1	22.6	44.3	-6.	*ZAI0146A -4. *	*DNK0090A 5. *	*S 0139A 5 *
39	ZAI0146A	-10.0	21	24.4	-0.2	1.9	1.4	192.	40.1	1	228.	63.7	29.5	-13.2	-16.	*BUL0020A-15. *	*LBY0280A -1. *	*SWZ0313A -1 *
40	MLT0147A	-4.0	21	14.2	35.5	0.6	0.6	0.	48.7	2	32.	63.8	14.4	35.9	6.	*LBY0280A 8. *	*BUL0020A 20. *	*S 0139A 20 *
41	DNK0090A	2.0	21	16.4	61.0	2.2	1.2	156.	40.0	1	265.	64.3	4.7	59.2	-32.	*S 0139A-32. *	*G 0027A 1. *	*SWZ0313A 12 *
42	S 0139A	2.0	21	16.4	61.0	2.2	1.2	156.	40.0	1	265.	64.3	8.3	55.0	-32.	*DNK0090A-32. *	*G 0027A 3. *	*POL0132A 11 *
43	SWZ0313A	2.0	21	30.5	-26.2	0.6	0.6	0.	48.7	1	32.	63.8	31.9	-26.5	-0.	*DNK0090A 4. *	*S 0139A 4. *	*AFS0023B 8 *
44	ETH0092A	8.0	21	40.0	10.0	2.5	1.5	108.	38.4	2	337.	63.7	42.4	13.0	2.	*OMA0125A 4. *	*YMS0267E 8. *	*KEN0249E 17 *
45	ARS0275A	14.0	21	46.3	25.4	3.6	1.2	145.	37.9	1	391.	63.8	47.5	6.0	-22.	*ETH0092A-21. *	*OMA0125A-15. *	*KEN0249E -6 *
46	COM0207A	20.0	21	44.0	-12.0	0.6	0.6	0.	48.7	2	31.	63.6	43.1	-11.4	6.	*URS0064A 7. *	*OMA0125A 21. *	*ETH0092A 22 *
47	URS0064A	20.0	21	45.0	41.1	1.5	0.6	156.	44.7	2	84.	63.9	46.6	38.8	3.	*ARS0275A 8. *	*COM0207A 9. *	*CYP0086A 9 *
48	OMA0125A	26.0	21	50.0	18.5	2.7	1.7	46.	37.6	1	397.	63.6	56.0	28.0	-4.	*ARS0275A -2. *	*PAK0281A 4. *	*LBY0280A 8 *
49	PAK0281A	38.0	21	65.0	28.1	1.3	1.2	76.	42.3	2	142.	63.8	61.3	29.5	1.	*OMA0125A 2. *	*ARS0275A 9. *	*IND0040C 22 *

Canal **21** suite - Channel **21** cont. - Canal **21** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
50	IND0040C	56.0	21	73.0	24.4	1.8	1.3	44.	40.6	2	203.	63.6	67.8	24.0	0.	*PAK0281A 3.	*OMA0125A 8.	*ARS0275A 9
51	BRM0298C	62.0	21	96.5	19.2	3.5	1.2	110.	38.1	1	371.	63.8	101.0	21.7	4.	*CHN0157C 7.	*CHN0157B 8.	*INS0029D 20
52	IND0046C	68.0	21	84.0	20.0	1.3	0.8	43.	44.1	2	89.	63.6	87.5	21.7	2.	*BRM0298C 4.	*BGD0220E 8.	*IND0047C 16
53	INS0029D	74.0	21	104.0	-2.4	1.4	1.3	83.	41.8	1	152.	63.6	104.3	1.0	6.	*BRM0298C 6.	*INS0032D 21.	*J 0111G 24
54	CHN0176A	80.0	21	114.1	33.5	1.1	0.6	149.	46.3	2	59.	63.9	116.1	36.1	-5.	*CHN0161B -5.	*J 0111G 6.	*CHN0160C 16
55	INS0032D	86.0	21	115.5	-0.2	1.7	0.9	78.	42.4	1	133.	63.6	113.0	-2.5	3.	*INS0029D 5.	*CHN0180A 12.	*PHL0285D 16
56	CHN0161B	92.0	21	118.1	31.2	2.0	1.5	96.	39.5	2	271.	63.8	115.4	36.0	-4.	*CHN0176A -3.	*J 0111G 9.	*CHN0160C 11
57	INS0036D	98.0	21	135.0	-5.1	2.0	1.4	85.	39.7	1	252.	63.8	142.5	-8.0	6.	*PNG0131C 10.	*PNG0271C 15.	*AUS0011D 16
58	AUS0012D	104.0	21	135.2	-30.1	1.8	1.4	45.	40.2	2	230.	63.8	141.0	-32.1	1.	*AUS0320C 2.	*AUS0013D 10.	*AUS0011D 14
59	J 0111G	110.0	21	134.4	31.5	3.4	2.9	46.	34.3	1	887.	63.8	123.7	24.3	4.	*CHN0161B 7.	*PNG0131C 9.	*URS0077F 21
60	AUS0320C	128.0	21	147.1	-32.0	1.9	1.2	15.	40.7	2	203.	63.7	144.7	-36.1	2.	*AUS0012D 4.	*PNG0271C 8.	*AUS0317B 11

Canal **22** - Channel **22** - Canal **22**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
31	SRL0259A	-34.0	22	-11.5	8.3	0.6	0.6	0.	48.7	2	31.	63.6	-11.7	10.0	2.	*MTN0223A 5.	*GNP0304A 10.	*CTI0237A 11
32	CVA0083A	-28.0	22	12.2	41.5	0.6	0.6	0.	48.7	1	35.	64.1	15.0	44.0	-8.	*TGO0226A -5.	*YUG0148A -1.	*F 0093A -0
33	TGO0226A	-28.0	22	0.5	8.4	1.2	0.6	104.	45.7	1	63.	63.6	-0.2	11.1	-5.	*MTN0223A -2.	*CVA0083A 0.	*HVO0107A 7
34	ALG0252A	-22.0	22	1.5	25.0	3.5	2.1	162.	35.7	2	638.	63.7	5.0	19.0	-7.	*NIG0119A -5.	*MTN0223A -2.	*LBY0280A 14
35	MTN0223A	-22.0	22	-12.3	19.0	2.9	1.4	162.	38.2	1	342.	63.5	-15.7	24.0	-11.	*ALG0251A -9.	*ALG0252A -5.	*LBY0280A 8
36	F 0093A	-16.0	22	3.1	45.5	2.3	0.9	150.	41.1	1	197.	64.0	9.5	41.2	-7.	*CVA0083A -4.	*GRC0105A -3.	*YUG0148A 6
37	COG0235A	-10.0	22	14.4	-0.4	1.9	1.0	67.	41.5	2	162.	63.6	15.3	-4.3	-3.	*AGL0295A -1.	*YUG0148A 3.	*GAB0260A 10
38	YUG0148A	-10.0	22	18.3	43.5	1.6	0.6	153.	44.3	2	94.	64.0	20.1	46.3	-7.	*COG0235A -5.	*POL0132A -0.	*CVA0083A 4
39	POL0132A	-4.0	22	19.2	52.0	1.4	0.6	158.	45.0	1	82.	64.1	24.1	50.7	-7.	*SDN0230A -5.	*BLR0062A 1.	*YUG0148A 6.
40	SDN0230A	-4.0	22	29.0	7.4	1.9	0.9	128.	42.0	1	148.	63.7	36.0	4.6	-7.	*UGA0051A -5.	*POL0132A -2.	*ZAI0146A 9.
41	AGL0295A	2.0	22	16.3	-12.3	2.5	1.9	71.	37.3	2	416.	63.5	20.0	-6.0	-12.	*MOZ0307A-12.	*COG0235A 9.	*ZAI0146A 19.
42	MOZ0307A	2.0	22	34.3	17.3	3.2	1.2	58.	38.3	2	350.	63.8	35.0	-11.8	-33.	*AGL0295A-33.	*MWI0308A-16.	*UGA0051A -2.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
43	UGA0051A	8.0	22	32.1	1.4	1.5	0.9	65.	42.7	1	122.	63.6	34.0	4.3	-2.	*SDN0230A	-1.	*ETH0092A	12.	*MOZ0307A	12
44	LBN0279A	14.0	22	36.0	34.0	0.6	0.6	0.	48.7	2	33.	63.8	35.4	33.7	7.	*ARS0275A	13.	*ARS0003A	13.	*ALG0252A	16
45	BLR0062A	20.0	22	27.5	52.5	1.0	0.6	3.	46.5	1	58.	64.1	23.5	53.9	-1.	*POL0132A	-0.	*YUG0148A	14.	*OMA0126A	14.
46	KWT0113A	26.0	22	47.4	29.2	0.6	0.6	0.	48.7	2	32.	63.7	48.2	28.3	2.	*MOZ0307A	4.	*OMA0126A	8.	*OMA0125A	14.
47	MAU0242A	32.0	22	60.0	-19.0	1.3	1.3	0.	42.0	1	149.	63.7	60.0	-15.0	15.	*SDN0230A	24.	*AGL0295A	24.	*MOZ0307A	27.
48	AFG0245C	50.0	22	70.4	35.1	1.0	0.9	27.	44.7	2	82.	63.8	69.3	32.0	6.	*MOZ0307A	11.	*PAK0281B	14.	*PAK0281A	14.
49	IND0045C	56.0	22	76.3	19.4	1.6	1.0	43.	42.2	1	138.	63.6	74.4	22.0	2.	*IND0040D	6.	*IND0040C	6.	*CHN0157C	19.
50	CHN0157C	62.0	22	102.3	28.1	2.4	1.3	120.	39.3	2	292.	64.0	101.7	21.3	4.	*BRM0298D	9.	*BRM0298C	9.	*CHN0180A	14.
51	CBG0299C	68.0	22	104.4	12.3	0.8	0.7	42.	46.7	1	51.	63.8	107.5	12.5	-10.	*IND0047C	-9.	*CHN0180A	0.	*CHN0157C	9.
52	IND0047C	68.0	22	93.0	10.4	1.5	0.8	95.	43.5	1	104.	63.6	93.8	14.8	-10.	*CBG0299C	-9.	*BRM0298D	5.	*BRM0298C	5.
53	INS0034D	86.0	22	121.4	-8.5	1.5	0.9	3.	43.2	2	114.	63.8	116.0	-8.9	7.	*CHN0180A	11.	*INS0032D	13.	*INS0031D	15.
54	CHN0180A	92.0	22	113.2	13.2	3.4	1.9	86.	36.2	1	550.	63.6	112.0	3.0	6.	*INS0032D	10.	*INS0031D	10.	*CHN0161C	21.
55	KOR0112F	98.0	22	128.1	35.4	1.3	0.9	8.	43.6	2	108.	63.9	126.5	37.3	3.	*CHN0161C	8.	*CHN0161B	8.	*CHN0180A	10.
56	AUS0013D	104.0	22	144.2	-38.3	1.5	0.8	45.	43.5	1	116.	64.1	142.2	-34.2	6.	*AUS0012D	9.	*AUS0014D	13.	*AUS0318C	17.
57	URS0077F	110.0	22	113.4	59.1	2.1	1.8	31.	38.5	2	376.	64.2	125.0	55.0	7.	*J 0111H	14.	*J 0111G	14.	*URS0080A	14.
58	PNG0271C	128.0	22	148.0	-6.4	2.8	2.1	155.	36.7	2	487.	63.5	154.0	-12.0	5.	*AUS0320C	8.	*AUS0318C	8.	*AUS0013D	24.
59	URS0080A	140.0	22	156.5	56.3	2.4	2.0	18.	37.4	1	474.	64.2	151.8	46.8	15.	*J 0111H	21.	*J 0111G	21.	*KOR0112F	21
60	TKL0058B	158.0	22	-172.2	-9.1	0.6	0.6	0.	48.7	2	31.	63.7	-172.4	-8.6	25.	*PNG0271C	27.	*URS0080A	31.	*URS0077F	34

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
31	GNP0304A	-34.0	23	-14.2	12.0	0.6	0.6	0.	48.7	1	31.	63.6	-16.3	11.8	8.	*MLI0269A 13.	*SRL0259A 14.	*HV00107A 16
32	AND0238A	-28.0	23	1.3	42.3	0.6	0.6	0.	48.7	2	34.	64.0	-1.3	43.6	-11.	*HV00107A-10.	*SUI0140A 1.	*E 0129A 1
33	HV00107A	-28.0	23	-1.5	12.0	1.5	1.2	15.	41.8	2	153.	63.6	2.5	13.0	-1.	*AND0238A 1.	*NGR0115A 8.	*MLI0269A 9
34	ALG0251A	-22.0	23	0.6	31.5	3.2	1.5	6.	37.3	1	444.	63.8	9.0	35.5	-1.	*GRC0105A 2.	*I 0082A 8.	*MTN0223A 10
35	GRC0105A	-16.0	23	24.5	38.1	1.6	0.9	159.	42.6	1	142.	64.1	19.4	39.9	-16.	*I 0082A-14.	*ALG0251A -6.	*F 0093A -5
36	SUI0140A	-16.0	23	8.1	46.4	1.0	0.8	171.	45.5	2	71.	64.1	6.0	46.1	-3.	*AND0238A 1.	*GRC0105A 2.	*F 0093A 9
37	GAB0260A	-10.0	23	11.5	-0.4	1.4	1.1	80.	42.3	1	134.	63.6	14.0	2.0	1.	*HNG0106A 4.	*COG0235A 7.	*TCD0143A 11
38	HNG0106A	-10.0	23	19.3	47.0	0.8	0.6	152.	47.4	1	46.	64.1	22.9	48.0	-6.	*GAB0260A -3.	*GRC0105A -1.	*POL0132A 6
39	BOT0297A	-4.0	23	23.2	-22.1	1.9	1.2	42.	40.8	2	199.	63.7	20.6	-27.0	3.	*AFS0021A 4.	*SMR0311A 10.	*AGL0295A 15
40	SMR0311A	-4.0	23	12.1	43.3	0.6	0.6	0.	48.7	2	34.	63.9	12.3	43.5	-2.	*SUI0140A 3.	*BOT0297A 5.	*HNG0106A 7
41	TUR0145A	2.0	23	34.1	38.5	2.4	0.9	165.	40.7	1	215.	64.0	27.2	37.0	-2.	*GRC0105A 0.	*OMA0126A 5.	*ALG0251A 7
42	MWI0308A	8.0	23	33.5	-13.0	1.4	0.6	89.	45.0	2	74.	63.6	35.2	-17.2	4.	*BOT0297A 6.	*AFS0021A 12.	*SOM0312A 14
43	ARS0003A	14.0	23	42.0	23.0	3.1	1.3	132.	38.2	1	360.	63.8	55.5	24.0	-14.	*OMA0126A-13.	*PAK0281B 0.	*SOM0312A 2
44	MYT0098A	20.0	23	45.0	-12.5	0.6	0.6	0.	48.7	2	31.	63.6	45.0	-12.5	15.	*OMA0126A 21.	*ARS0003A 23.	*MWI0308A 24
45	OMA0126A	26.0	23	45.0	23.5	5.1	3.0	142.	32.4	1	1352.	63.7	42.6	37.3	-2.	*TUR0145A 1.	*ARS0003A 4.	*GRC0105A 8.
46	PAK0281B	38.0	23	65.0	28.1	1.3	1.2	76.	42.3	2	143.	63.8	61.3	29.5	0.	*OMA0126A 1.	*ARS0003A 22.	*TUR0145A 22.
47	IND0040D	56.0	23	73.0	24.4	1.8	1.3	44.	40.6	2	204.	63.7	67.8	24.0	0.	*PAK0281B 3.	*OMA0126A 5.	*IND0045D 15.
48	BRM0298D	62.0	23	96.3	19.2	3.5	1.2	110.	38.1	1	373.	63.8	101.0	21.7	3.	*CHN0188A 7.	*CHN0157C 8.	*OMA0126A 16.
49	IND0046D	68.0	23	84.0	20.0	1.3	0.8	43.	44.1	2	90.	63.6	87.5	21.7	3.	*BRM0298D 4.	*OMA0126A 13.	*IND0047D 16.
50	INS0028D	74.0	23	99.0	1.2	1.9	0.8	130.	42.4	1	131.	63.6	97.7	5.7	-1.	*BRM0298D -1.	*IND0047D 13.	*IND0047C 13.
51	CHN0165A	80.0	23	111.4	41.5	1.4	0.9	16.	43.3	2	117.	64.0	120.0	45.5	3.	*CHN0161C 4.	*J 0111H 10.	*BRM0298D 20.
52	INS0031D	86.0	23	110.5	-1.2	1.3	1.0	159.	43.3	1	108.	63.6	109.6	2.0	5.	*CHN0180A 7.	*BRM0298D 12.	*PHL0285E 14.
53	CHN0161C	92.0	23	118.1	31.2	2.0	1.5	96.	39.5	2	273.	63.8	123.8	30.2	-0.	*J 0111H 1.	*KOR0112F 9.	*CHN0180A 12.
54	INS0035D	98.0	23	128.1	-1.5	1.8	1.1	77.	41.3	1	173.	63.7	124.5	-1.9	11.	*PHL0285E 20.	*AUS0014D 20.	*CHN0161C 20.
55	AUS0014D	104.0	23	145.1	-21.4	2.3	1.5	85.	38.9	2	321.	63.9	149.0	-29.0	5.	*AUS0015D 7.	*AUS0318C 13.	*AUS0013D 15
56	J 0111H	110.0	23	134.4	31.5	3.4	2.9	46.	34.3	1	893.	63.8	123.7	24.3	4.	*CHN0161C 7.	*PNG0131D 8.	*CHN0175A 17.
57	AUS0318C	128.0	23	145.0	-38.0	1.3	1.3	0.	42.0	2	154.	63.9	142.2	-34.2	4.	*PNG0271C 9.	*AUS0317C 9.	*AUS0014D 11

Canal **24** - Channel **24** - Canal **24**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
28	MLI0269A	-34.0	24	-2.1	19.2	2.6	1.2	146.	39.3	2	281.	63.8	-12.0	13.8	-11.	*GNP0304A -7. *	*GMB0302B -6. *	*NGR0115A -2 *
29	NGR0115A	-28.0	24	8.1	16.4	2.4	2.0	56.	37.4	1	444.	63.8	13.0	13.0	-1.	*TCD0143A 2. *	*MLI0269A 5. *	*LBY0280B 16 *
30	CNR0130A	-22.0	24	-15.4	28.2	1.1	0.6	2.	46.2	2	56.	63.7	-18.0	29.0	-9.	*E 0129A -9. *	*NIG0119B 10. *	*MLI0269A 10 *
31	E 0129A	-22.0	24	-3.0	39.4	1.9	1.0	164.	41.4	2	177.	63.9	3.3	42.3	-10.	*CNR0130A -9. *	*I 0082A -1. *	*AND0238A 4 *
32	I 0082A	-16.0	24	12.2	40.4	2.3	1.0	142.	40.6	1	221.	64.0	6.6	45.1	-26.	*LUX0114A-26. *	*E 0129A 4. *	*YUG0149A 7 *
33	LUX0114A	-16.0	24	5.4	49.5	0.6	0.6	0.	48.7	1	35.	64.1	8.1	48.2	-34.	*I 0082A-34. *	*YUG0149A 1. *	*D 0087C 3 *
34	TCD0143A	-10.0	24	18.0	15.0	3.4	1.7	101.	36.7	2	504.	63.7	23.8	19.3	-7.	*YUG0149A -7. *	*NGR0115A 5. *	*LBY0280B 15 *
35	YUG0149A	-10.0	24	18.3	43.5	1.6	0.6	153.	44.3	2	94.	64.1	22.7	44.5	-16.	*TCD0143A-16. *	*I 0082A 2. *	*BUL0020B 7 *
36	ZMB0314A	-4.0	24	-28.2	-12.3	2.2	1.4	50.	39.5	1	258.	63.6	33.0	-13.8	-23.	*AFS0021A-18. *	*MWI0308A-16. *	*BOT0297A-15 *
37	AFS0021A	2.0	24	24.1	-28.1	2.9	1.4	30.	38.1	2	372.	63.8	24.0	-23.0	3.	*BOT0297A 5. *	*ISL0050A 10. *	*SWZ0313B 16 *
38	ISL0050A	2.0	24	-19.3	61.0	2.0	0.6	4.	43.5	2	123.	64.3	-6.2	62.3	2.	*AFS0021A 3. *	*S 0138C 15. *	*G 0027B 19 *
39	SOM0312A	8.0	24	44.4	6.3	3.4	1.1	81.	38.6	1	329.	63.8	43.2	11.2	6.	*ETH0092B 8. *	*ARS0003A 14. *	*OMA0125B 20 *
40	JOR0224A	14.0	24	36.1	31.4	0.9	0.6	130.	47.1	2	47.	63.8	34.0	35.0	-2.	*ARS0275B 5. *	*ARS0003A 6. *	*TCD0143A 8 *
41	URS0060A	20.0	24	44.0	61.1	2.3	1.3	156.	39.5	1	307.	64.4	43.6	47.5	3.	*URS0064B 8. *	*OMA0126A 8. *	*SOM0312A 17 *
42	UAE0274A	26.0	24	53.3	24.0	0.8	0.7	168.	46.9	2	49.	63.8	54.9	22.4	0.	*SOM0312A 5. *	*OMA0125B 6. *	*OMA0126A 6 *
43	MAU0243A	32.0	24	57.0	-14.0	1.3	1.3	0.	42.0	1	147.	63.7	57.0	-10.0	14.	*SOM0312A 23. *	*MLD0306D 23. *	*AFS0021A 24 *
44	MLD0306D	44.0	24	72.3	4.0	2.3	0.6	96.	42.9	1	118.	63.7	74.0	2.5	3.	*URS0072B 4. *	*URS0066C 18. *	*IND0045D 21 *
45	URS0072B	44.0	24	73.0	62.3	1.8	0.7	172.	43.2	1	131.	64.4	85.9	61.9	-6.	*MLD0306D -6. *	*URS0060A 10. *	*URS0066C 10 *
46	AFG0245D	50.0	24	70.4	35.1	1.0	0.9	27.	44.7	2	82.	63.8	74.9	37.1	5.	*URS0066C 7. *	*SOM0312A 18. *	*MLD0306D 19 *
47	IND0045D	56.0	24	76.3	19.4	1.6	1.0	43.	42.2	1	139.	63.6	74.0	15.7	4.	*MLD0306D 5. *	*IND0040D 14. *	*AFG0245D 22 *
48	CHN0188A	62.0	24	101.5	25.5	1.6	0.9	120.	42.5	2	138.	64.0	106.0	23.4	1.	*CHN0187A 2. *	*BRM0298D 12. *	*IND0047D 20 *
49	CBG0299D	68.0	24	104.4	12.3	0.8	0.7	42.	46.7	1	51.	63.8	107.5	12.5	-10.	*IND0047D -9. *	*BRM0298D 13. *	*PHL0285E 14 *
50	IND0047D	68.0	24	93.0	10.4	1.5	0.8	95.	43.5	1	104.	63.6	93.8	14.8	-9.	*CBG0299D -9. *	*BRM0298D 5. *	*CHN0188A 17 *
51	CHN0187A	80.0	24	106.3	26.4	0.9	0.7	4.	46.7	1	51.	63.8	107.5	29.2	-1.	*CHN0188A -0. *	*CHN0165A 13. *	*PHL0285E 15 *
52	PHL0285E	86.0	24	122.0	11.1	2.9	1.6	102.	37.5	2	422.	63.8	122.0	21.0	-4.	*CHN0175A -3. *	*CHN0161C 13. *	*J 0111H 19 *
53	CHN0175A	92.0	24	120.2	22.3	1.4	0.8	58.	43.7	1	101.	63.8	121.9	21.6	1.	*PHL0285E 1. *	*CHN0161C 14. *	*J 0111H 21 *

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
54	KRE0286E	98.0	24	127.3	42.3	1.3	0.6	134.	44.8	2	83.	64.0	130.0	43.0	4.	*URS0079B	5.	*CHN0161C	12.	*J 0111H	18
55	AUS0015D	104.0	24	146.5	-31.3	1.6	1.0	45.	42.2	1	154.	64.1	144.7	-36.1	3.	*AUS0317C	4.	*PNG0131D	12.	*AUS0014D	14
56	PNG0131D	110.0	24	147.3	-6.3	2.3	2.0	139.	37.5	1	424.	63.8	154.0	-12.0	6.	*J 0111H	8.	*AUS0015D	12.	*AUS0014D	24
57	AUS0317C	128.0	24	135.4	-30.1	2.0	1.6	160.	39.1	1	290.	63.7	141.0	-32.1	1.	*AUS0015D	2.	*AUS0318C	11.	*PNG0131D	25
58	URS0079B	140.0	24	138.2	58.4	2.6	1.5	62.	38.3	1	389.	64.2	130.9	44.8	-1.	*KRE0286E	-0.	*J 0111H	20.	*PHL0285E	23
59	NIU0054B	158.0	24	-169.5	-19.0	0.6	0.6	0.	48.7	2	32.	63.8	-169.9	-19.0	20.	*PNG0131D	21.	*AUS0317C	29.	*URS0079B	35

Canal **25** - Channel **25** - Canal **25**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
33	GMB0302B	-34.0	25	-15.1	13.2	0.6	0.6	0.	48.7	1	31.	63.6	-16.7	13.4	10.	*MLI0269A 15. *	*CTI0237B 18. *	*MTN0223B 18 *
34	CTI0237B	-28.0	25	-5.3	7.3	1.6	1.2	102.	41.3	2	168.	63.6	-8.0	10.1	-3.	*G 0027B -3. *	*SRL0259B 13. *	*NIG0119B 13 *
35	G 0027B	-28.0	25	-3.3	53.5	1.6	0.8	149.	42.9	2	135.	64.2	1.3	51.1	-6.	*CTI0237B -5. *	*D 0087C 1. *	*F 0093B 15 *
36	LBY0280B	-22.0	25	18.5	25.4	2.6	1.7	140.	37.9	1	410.	64.0	25.0	20.0	-2.	*NIG0119B -0. *	*MTN0223B 9. *	*NGR0115A 10 *
37	NIG0119B	-22.0	25	7.1	9.3	1.8	1.3	85.	40.7	2	199.	63.7	5.5	14.0	-12.	*ALG0252B-11. *	*LBY0280B -2. *	*E 0129A 8 *
38	CYP0086B	-16.0	25	33.2	35.0	0.6	0.6	0.	48.7	1	36.	64.2	32.3	34.8	-5.	*LBY0280B -3. *	*I 0082A 2. *	*ARS0275B 8 *
39	D 0087C	-16.0	25	9.3	50.3	1.4	0.7	149.	44.4	2	95.	64.2	10.0	54.8	-2.	*G 0027B 1. *	*S 0138C 2. *	*LUX0114A 10 *
40	BUL0020B	-10.0	25	24.5	42.5	0.9	0.6	163.	46.9	1	52.	64.1	22.6	44.3	-5.	*ZAI0146B -4. *	*YUG0148B 7. *	*YUG0149A 7 *
41	ZAI0146B	-10.0	25	24.4	-0.2	1.9	1.4	192.	40.1	1	231.	63.8	29.5	-13.2	-16.	*BUL0020B-15. *	*TCD0143A -5. *	*LBY0280B -1 *
42	MLT0147B	-4.0	25	14.2	35.5	0.6	0.6	0.	48.7	2	33.	63.9	14.4	35.9	6.	*LBY0280B 8. *	*I 0082A 17. *	*TCD0143A 20 *
43	S 0138C	2.0	25	16.0	61.0	1.1	0.9	144.	44.2	1	103.	64.3	13.3	55.3	-1.	*D 0087C 2. *	*POL0132B 7. *	*G 0027B 8 *
44	SWZ0313B	2.0	25	30.5	-26.2	0.6	0.6	0.	48.7	1	33.	63.8	31.9	-26.5	4.	*S 0138C 7. *	*AFS0021A 9. *	*AGL0295B 17 *
45	ETH0092B	8.0	25	40.0	10.0	2.5	1.5	108.	38.4	2	341.	63.7	42.4	13.0	3.	*OMA0125B 4. *	*SOM0312A 11. *	*ARS0275B 17 *
46	ARS0275B	14.0	25	46.3	25.4	3.6	1.2	145.	37.9	1	396.	63.9	47.5	6.0	-23.	*ETH0092B-21. *	*SOM0312A-16. *	*OMA0125B-15 *
47	COM0207B	20.0	25	44.0	-12.0	0.6	0.6	0.	48.7	2	31.	63.6	43.1	-11.4	6.	*URS0064B 7. *	*OMA0125B 21. *	*ETH0092B 22 *
48	URS0064B	20.0	25	45.0	41.1	1.5	0.6	156.	44.7	2	85.	64.0	50.3	40.3	-1.	*URS0066C 2. *	*COM0207B 7. *	*CYP0086B 10 *
49	OMA0125B	26.0	25	50.0	18.5	2.7	1.7	46.	37.6	1	403.	63.7	56.0	28.0	-3.	*ARS0275B -2. *	*LBY0280B 8. *	*UAE0274A 9 *
50	URS0066C	44.0	25	65.2	45.5	3.7	2.0	174.	35.6	2	706.	64.0	53.9	37.3	3.	*URS0064B 6. *	*LBY0280B 11. *	*ARS0275B 12 *

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
19	SRL0259B	-34.0	26	-11.5	8.3	0.6	0.6	0.	48.7	2	31.	63.6	-11.7	10.0	2.	*MTN0223B	5.	*GNP0304B	10.	*CTI0237B	11
20	CVA0083B	-28.0	26	12.2	41.5	0.6	0.6	0.	48.7	1	36.	64.2	15.0	44.0	-8.	*TG00226B	-5.	*YUG0148B	-1.	*F 0093B	-0
21	TG00226B	-28.0	26	0.5	8.4	1.2	0.6	104.	45.7	1	63.	63.7	-0.2	11.1	-5.	*MTN0223B	-2.	*CVA0083B	0.	*HV00107B	7
22	ALG0252B	-22.0	26	1.5	25.0	3.5	2.1	162.	35.7	2	647.	63.8	5.0	19.0	-7.	*NIG0119B	-5.	*MTN0223B	-2.	*LBY0280B	14
23	MTN0223B	-22.0	26	-12.3	19.0	2.9	1.4	162.	38.2	1	347.	63.6	-15.7	24.0	-11.	*ALG0251B	-9.	*ALG0252B	-5.	*LBY0280B	8
24	F 0093B	-16.0	26	3.1	45.5	2.3	0.9	150.	41.1	1	199.	64.0	9.5	41.2	-7.	*CVA0083B	-4.	*GRC0105B	-3.	*YUG0148B	6
25	COG0235B	-10.0	26	14.4	-0.4	1.9	1.0	67.	41.5	2	164.	63.6	15.3	-4.3	-3.	*AGL0295B	-1.	*YUG0148B	3.	*GAB0260B	10
26	YUG0148B	-10.0	26	18.3	43.5	1.6	0.6	153.	44.3	2	95.	64.1	20.1	46.3	-7.	*COG0235B	-5.	*POL0132B	-0.	*CVA0083B	4
27	POL0132B	-4.0	26	19.2	52.0	1.4	0.6	158.	45.0	1	83.	64.2	24.1	50.7	-7.	*SDN0230B	-5.	*BLR0062B	1.	*YUG0148B	6
28	SDN0230B	-4.0	26	29.0	7.4	1.9	0.9	128.	42.0	1	150.	63.8	36.0	4.6	-7.	*UGA0051B	-5.	*POL0132B	-2.	*ZAI0146B	9
29	AGL0295B	2.0	26	16.3	-12.3	2.5	1.9	71.	37.3	2	422.	63.6	20.0	-6.0	-12.	*MOZ0307B	-12.	*COG0235B	9.	*ZAI0146B	19
30	MOZ0307B	2.0	26	34.3	17.3	3.2	1.2	58.	38.3	2	355.	63.8	35.0	-11.8	-33.	*AGL0295B	-33.	*MWI0308B	-16.	*UGA0051B	-2
31	UGA0051B	8.0	26	32.1	1.4	1.5	0.9	65.	42.7	1	124.	63.6	34.0	4.3	-1.	*SDN0230B	-1.	*ETH0092B	12.	*MOZ0307B	12
32	LBN0279B	14.0	26	36.0	34.0	0.6	0.6	0.	48.7	2	33.	63.9	35.4	33.7	7.	*ARS0275B	13.	*ARS0003B	13.	*ALG0252B	16
33	BLR0062B	20.0	26	27.5	52.5	1.0	0.6	3.	46.5	1	59.	64.1	23.5	53.9	-1.	*POL0132B	-0.	*YUG0148B	14.	*OMA0126B	15
34	KWT0113B	26.0	26	47.4	29.2	0.6	0.6	0.	48.7	2	32.	63.8	48.2	28.3	2.	*MOZ0307B	4.	*OMA0126B	8.	*OMA0125B	14
35	MAU0242B	32.0	26	60.0	-19.0	1.3	1.3	0.	42.0	1	151.	63.8	56.8	-21.2	16.	*AGL0295B	25.	*SDN0230B	25.	*ALG0252B	25
36	URS0067A	44.0	26	65.1	61.4	2.7	1.3	179.	38.8	1	362.	64.4	74.3	53.5	4.	*URS0066C	6.	*URS0068A	14.	*URS0075A	18
37	URS0075A	80.0	26	93.3	51.1	1.4	0.6	179.	45.0	1	82.	64.1	99.0	52.9	8.	*MNG0248A	8.	*URS0067A	16.	*URS0066C	21
38	URS0080B	140.0	26	156.5	56.3	2.4	2.0	18.	37.4	1	480.	64.2	151.8	46.8	25.	*URS0075A	27.	*MNG0248A	31.	*GMB0302B	90

Canal **27** - Channel **27** - Canal **27**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
21	GNP0304B	-34.0	27	-14.2	12.0	0.6	0.6	0.	48.7	1	31.	63.6	-16.3	11.8	8.	*MLI0269B 13. *	*SRL0259B 13. *	*HVD0107B 16 *
22	AND0238B	-28.0	27	1.3	42.3	0.6	0.6	0.	48.7	2	35.	64.1	-1.3	43.6	-11.	*HVD0107B-10. *	*SUI0140B 1. *	*E 01298 2 *
23	HVD0107B	-28.0	27	-1.5	12.0	1.5	1.2	15.	41.8	2	155.	63.7	2.5	13.0	-1.	*AND0238B 1. *	*NGR0115B 8. *	*MLI0269B 9 *
24	ALG0251B	-22.0	27	0.6	31.5	3.2	1.5	6.	37.3	1	450.	63.9	9.0	35.5	-1.	*GRC0105B 2. *	*I 00823 8. *	*MTN0223B 10 *
25	GRC0105B	-16.0	27	24.5	38.1	1.6	0.9	159.	42.6	1	144.	64.2	19.4	39.9	-16.	*I 00828-14. *	*ALG0251B -6. *	*F 00933 -5 *
26	SUI0140B	-16.0	27	8.1	46.4	1.0	0.8	171.	45.5	2	72.	64.1	6.0	46.1	-3.	*AND0238B 1. *	*GRC0105B 2. *	*F 00938 9 *
27	GAB0260B	-10.0	27	11.5	-0.4	1.4	1.1	80.	42.3	1	135.	63.6	14.0	2.0	1.	*HNG0106B 4. *	*COG0235B 7. *	*TCD0143B 11 *
28	HNG0106B	-10.0	27	19.3	47.0	0.8	0.6	152.	47.4	1	47.	64.2	22.9	48.0	-6.	*GAB0260B -3. *	*GRC0105B -1. *	*POL0132B 6 *
29	BOT0297B	-4.0	27	23.2	-22.1	1.9	1.2	42.	40.8	2	201.	63.8	20.6	-27.0	4.	*AFS0021B 4. *	*AGL0295B 15. *	*GAB0260B 21 *
30	TUR0145B	2.0	27	34.1	38.5	2.4	0.9	165.	40.7	1	218.	64.1	27.2	37.0	-2.	*GRC0105B 0. *	*OMA0126B 5. *	*ALG0251B 7 *
31	MWI0308B	8.0	27	33.5	-13.0	1.4	0.6	89.	45.0	2	75.	63.7	35.2	-17.2	4.	*BOT0297B 6. *	*AFS0021B 12. *	*SOM0312B 14 *
32	ARS0003B	14.0	27	42.0	23.0	3.1	1.3	132.	38.2	1	365.	63.8	55.5	24.0	-14.	*OMA0126B-13. *	*SOM0312B 2. *	*UAE0274B 3 *
33	MYT0098B	20.0	27	45.0	-12.5	0.6	0.6	0.	48.7	2	32.	63.7	45.0	-12.8	15.	*OMA0126B 20. *	*ARS0003B 23. *	*MWI0308B 24 *
34	OMA0126B	26.0	27	45.0	23.5	5.1	3.0	142.	32.4	1	1370.	63.7	42.6	37.3	-2.	*TUR0145B 1. *	*ARS0003B 4. *	*GRC0105B 8 *
35	URS0068A	44.0	27	58.4	39.0	2.2	0.9	164.	41.3	2	183.	63.9	53.7	37.4	2.	*OMA0126B 4. *	*TUR0145B 6. *	*ALG0251B 15 *
36	MNG0248A	80.0	27	102.4	46.5	3.1	1.2	173.	38.5	2	360.	64.1	98.8	51.9	5.	*URS0075A 8. *	*URS0074A 10. *	*OMA0126B 18 *

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
17	MLI0269B	-34.0	28	-2.1	19.2	2.6	1.2	146.	39.3	2	285.	63.8	-12.0	13.8	-11.	*GNP0304B -7. *	*GMB0302C -7. *	*NGR0115B -2 *
18	NGR0115B	-28.0	28	8.1	16.4	2.4	2.0	56.	37.4	1	449.	63.9	13.0	13.0	-1.	*TCD0143B 2. *	*MLI0269B 5. *	*LBY0280C 16 *
19	CNR0130B	-22.0	28	-15.4	28.2	1.1	0.6	2.	46.2	2	56.	63.7	-18.0	29.0	-9.	*E 0129B -9. *	*NIG0119C 9. *	*MLI0269B 10 *
20	E 0129B	-22.0	28	-3.0	39.4	1.9	1.0	164.	41.4	2	179.	64.0	3.3	42.3	-10.	*CNR0130B -9. *	*I 0082B -1. *	*AND0238B 4 *
21	I 0082B	-16.0	28	12.2	40.4	2.3	1.0	142.	40.6	1	224.	64.1	6.6	45.1	-26.	*LUX0114B-26. *	*E 0129B 4. *	*YUG0149B 7 *
22	LUX0114B	-16.0	28	5.4	49.5	0.6	0.6	0.	48.7	1	35.	64.2	8.1	48.2	-34.	*I 0082B-34. *	*YUG0149B 1. *	*SUI0140B 4 *
23	TCD0143B	-10.0	28	18.0	15.0	3.4	1.7	101.	36.7	2	510.	63.8	23.8	19.3	-7.	*YUG0149B -7. *	*NGR0115B 5. *	*LBY0280C 15 *
24	YUG0149B	-10.0	28	18.3	43.5	1.6	0.6	153.	44.3	2	95.	64.1	22.7	44.5	-16.	*TCD0143B-16. *	*I 0082B 2. *	*BUL0020C 7 *
25	ZMB0314B	-4.0	28	-28.2	-12.3	2.2	1.3	50.	39.5	1	261.	63.7	33.0	-13.8	-23.	*AFS0021B-18. *	*MWI0308B-16. *	*BOT0297B-15 *
26	AFS0021B	2.0	28	24.1	-28.1	2.9	1.4	30.	38.1	2	377.	63.8	24.0	-23.0	3.	*BOT0297B 5. *	*ISL0050B 10. *	*SWZ0313C 16 *
27	ISL0050B	2.0	28	-19.3	61.0	2.0	0.6	4.	43.5	2	124.	64.4	-6.2	62.3	2.	*AFS0021B 3. *	*DNK0090B 12. *	*S 0139B 12 *
28	SOM0312B	8.0	28	44.4	6.3	3.4	1.1	81.	38.6	1	334.	63.8	43.2	11.2	6.	*ETH0092C 8. *	*ARS0003B 14. *	*OMA0125C 20 *
29	JOR0224B	14.0	28	36.1	31.4	0.9	0.6	130.	47.1	2	47.	63.9	34.0	35.0	-2.	*ARS0275C 5. *	*ARS0003B 6. *	*TCD0143B 8 *
30	URS0060B	20.0	28	44.0	61.1	2.3	1.3	156.	39.5	1	311.	64.4	43.6	47.5	3.	*URS0064C 8. *	*OMA0126B 8. *	*SOM0312B 17 *
31	UAE0274B	26.0	28	53.3	24.0	0.8	0.7	168.	46.9	2	50.	63.8	54.9	22.4	1.	*SOM0312B 5. *	*OMA0125C 6. *	*OMA0126B 6 *
32	MAU0243B	32.0	28	57.0	-14.0	1.3	1.3	0.	42.0	1	149.	63.7	57.0	-10.0	16.	*SOM0312B 23. *	*AFS0021B 24. *	*TCD0143B 24 *
33	URS0074A	80.0	28	92.0	60.2	2.1	1.5	5.	39.3	1	322.	64.3	74.9	58.6	5.	*URS0060B 7. *	*MNG0248A 13. *	*URS0066D 16 *
34	URS0079C	140.0	28	138.2	58.4	2.6	1.5	62.	38.3	1	394.	64.3	128.4	73.3	3.	*URS0074A 3. *	*MNG0248A 33. *	*URS0066D 90 *

Canal **29** - Channel **29** - Canal **29**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
19	GMB0302C	-34.0	29	-15.1	13.2	0.6	0.6	0.	48.7	1	31.	63.7	-16.7	13.4	10.	*MLI0269B 15. *	*CTI0237C 18. *	*MTN0223C 18 *
20	CTI0237C	-28.0	29	-5.3	7.3	1.6	1.2	102.	41.3	2	171.	63.7	-8.0	10.1	-3.	*G 0027C -3. *	*SRL0259C 13. *	*NIG0119C 13 *
21	G 0027C	-28.0	29	-3.3	53.5	1.6	0.8	149.	42.9	2	137.	64.3	1.3	51.1	-5.	*CTI0237C -5. *	*DNK0090B 10. *	*S 0139B 10 *
22	LBY0280C	-22.0	29	18.5	25.4	2.6	1.7	140.	37.9	1	415.	64.0	25.0	20.0	-2.	*NIG0119C -0. *	*MTN0223C 9. *	*NGR0115B 10 *
23	NIG0119C	-22.0	29	7.1	9.3	1.8	1.3	85.	40.7	2	202.	63.8	5.5	14.0	-12.	*ALG0252C-11. *	*LBY0280C -2. *	*E 0129B 8 *
24	AUT0016B	-16.0	29	12.1	47.3	1.1	0.7	167.	45.5	2	74.	64.2	17.1	48.0	-2.	*DNK0090B 5. *	*S 0139B 5. *	*YUG0148C 7 *
25	CYP0086C	-16.0	29	33.2	35.0	0.6	0.6	0.	48.7	1	36.	64.3	32.3	34.8	-5.	*LBY0280C -3. *	*I 0082B 2. *	*ARS0275C 8 *
26	BUL0020C	-10.0	29	24.5	42.5	0.9	0.6	163.	46.9	1	53.	64.2	22.6	44.3	-6.	*ZAI0146C -4. *	*DNK0090B 6. *	*S 0139B 6 *
27	ZAI0146C	-10.0	29	24.4	-0.2	1.9	1.4	192.	40.1	1	234.	63.8	29.5	-13.2	-16.	*BUL0020C-15. *	*TCD0143B -5. *	*LBY0280C -1 *
28	MLT0147C	-4.0	29	14.2	35.5	0.6	0.6	0.	48.7	2	33.	63.9	14.2	35.5	6.	*LBY0280C 8. *	*I 0082B 17. *	*TCD0143B 20 *
29	DNK0090B	2.0	29	16.4	61.0	2.2	1.2	156.	40.0	1	272.	64.4	4.7	59.2	-32.	*S 0139B-32. *	*G 0027C 1. *	*SWZ0313C 12 *
30	S 0139B	2.0	29	16.4	61.0	2.2	1.2	156.	40.0	1	272.	64.4	8.3	55.0	-32.	*DNK0090B-32. *	*G 0027C 3. *	*POL0132C 11 *
31	SWZ0313C	2.0	29	30.5	-26.2	0.6	0.6	0.	48.7	1	33.	63.9	31.9	-26.5	-0.	*DNK0090B 3. *	*S 0139B 3. *	*AFS0021B 9 *
32	ETH0092C	8.0	29	40.0	10.0	2.5	1.5	108.	38.4	2	346.	63.8	42.4	13.0	3.	*OMA0125C 4. *	*SOM0312B 11. *	*ARS0275C 17 *
33	ARS0275C	14.0	29	46.3	25.4	3.6	1.2	145.	37.9	1	401.	63.9	47.5	6.0	-23.	*ETH0092C-21. *	*SOM0312B-16. *	*OMA0125C-15 *
34	COM0207C	20.0	29	44.0	-12.0	0.6	0.6	0.	48.7	2	32.	63.7	43.1	-11.4	6.	*URS0064C 7. *	*OMA0125C 21. *	*ETH0092C 22 *
35	URS0064C	20.0	29	45.0	41.1	1.5	0.6	156.	44.7	2	86.	64.1	50.3	40.3	-1.	*URS0066D 2. *	*COM0207C 7. *	*CYP0086C 10 *
36	OMA0125C	26.0	29	50.0	18.5	2.7	1.7	46.	37.6	1	408.	63.8	56.0	28.0	-3.	*ARS0275C -2. *	*LBY0280C 8. *	*UAE0274B 9 *
37	URS0066D	44.0	29	65.2	45.5	3.7	2.0	174.	35.6	2	716.	64.1	53.9	37.3	3.	*URS0064C 6. *	*LBY0280C 11. *	*ARS0275C 12 *

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
20	SRL0259C	-34.0	30	-11.5	8.3	0.6	0.6	0.	48.7	2	32.	63.7	-11.7	10.0	2.	*MTN0223C 5. *	*GNP0304C 10. *	*CTI0237C 11 *
21	CVA0083C	-28.0	30	12.2	41.5	0.6	0.6	0.	48.7	1	36.	64.2	15.0	44.0	-8.	*TGO0226C -5. *	*YUG0148C -1. *	*F 0093C 0 *
22	TGO0226C	-28.0	30	0.5	8.4	1.2	0.6	104.	45.7	1	64.	63.8	-0.2	11.1	-5.	*MTN0223C -2. *	*CVA0083C 0. *	*HVO0107C 7 *
23	ALG0252C	-22.0	30	1.5	25.0	3.5	2.1	162.	35.7	2	655.	63.8	5.0	19.0	-7.	*NIG0119C -5. *	*MTN0223C -2. *	*LBY0280C 14 *
24	MTN0223C	-22.0	30	-12.3	19.0	2.9	1.4	162.	38.2	1	351.	63.6	-15.7	24.0	-11.	*ALG0251C -9. *	*ALG0252C -5. *	*LBY0280C 7 *
25	F 0093C	-16.0	30	3.1	45.5	2.3	0.9	150.	41.1	1	202.	64.1	9.5	41.2	-7.	*CVA0083C -3. *	*GRC0105C -3. *	*YUG0148C 6 *
26	COG0235C	-10.0	30	14.4	-0.4	1.9	1.0	67.	41.5	2	166.	63.7	15.3	-4.3	-3.	*AGL0295C -1. *	*YUG0148C 3. *	*GAB0260C 10 *
27	YUG0148C	-10.0	30	18.3	43.5	1.6	0.6	153.	44.3	2	96.	64.1	20.1	46.3	-7.	*COG0235C -5. *	*POL0132C -0. *	*UKR0063A 4 *
28	POL0132C	-4.0	30	19.2	52.0	1.4	0.6	158.	45.0	1	84.	64.3	20.0	49.2	-7.	*SDN0230C -5. *	*YUG0148C 2. *	*UKR0063A 4 *
29	SDN0230C	-4.0	30	29.0	7.4	1.9	0.9	128.	42.0	1	152.	63.8	36.0	4.6	-7.	*UGA0051C -5. *	*POL0132C -2. *	*ZAI0146C 9 *
30	AGL0295C	2.0	30	16.3	-12.3	2.5	1.9	71.	37.3	2	427.	63.6	20.0	-6.0	-12.	*MOZ0307C -12. *	*COG0235C 9. *	*ZAI0146C 19 *
31	MOZ0307C	2.0	30	34.3	17.3	3.2	1.2	58.	38.3	2	360.	63.9	35.0	-11.8	-33.	*AGL0295C -33. *	*MWI0308C -16. *	*UGA0051C -2 *
32	UGA0051C	8.0	30	32.1	1.4	1.5	0.9	65.	42.7	1	125.	63.7	34.0	4.3	-1.	*SDN0230C -1. *	*ETH0092C 12. *	*MOZ0307C 12 *
33	LBN0279C	14.0	30	36.0	34.0	0.6	0.6	0.	48.7	2	33.	63.9	35.4	33.7	7.	*ARS0275C 13. *	*ARS0003C 13. *	*ALG0252C 16 *
34	UKR0063A	20.0	30	31.1	48.3	2.1	0.8	171.	42.0	1	163.	64.1	22.1	48.4	-2.	*POL0132C 1. *	*YUG0148C 3. *	*CVA0083C 9 *
35	KWT0113C	26.0	30	47.4	29.2	0.6	0.6	0.	48.7	2	33.	63.9	48.2	28.3	1.	*MOZ0307C 4. *	*OMA0126C 7. *	*OMA0125C 13 *
36	MAU0242C	32.0	30	60.0	-19.0	1.3	1.3	0.	42.0	1	153.	63.8	56.8	-21.2	16.	*AGL0295C 25. *	*SDN0230C 25. *	*ALG0252C 25 *
37	URS0067B	44.0	30	65.1	61.4	2.7	1.3	179.	38.3	1	356.	64.4	50.9	51.9	4.	*URS0066D 8. *	*UKR0063A 8. *	*URS0068B 14 *
38	URS0075B	80.0	30	93.3	51.1	1.4	0.6	179.	45.0	1	83.	64.2	99.0	52.9	8.	*MNG0248B 8. *	*URS0067B 16. *	*URS0066D 21 *
39	URS0080C	140.0	30	156.5	56.3	2.4	2.0	18.	37.4	1	486.	64.3	151.8	46.8	25.	*URS0075B 27. *	*MNG0248B 31. *	*GMB0302C 90 *

Canal **31** - Channel **31** - Canal **31**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
21	GNP0304C	-34.0	31	-14.2	12.0	0.6	0.6	0.	48.7	1	32.	63.7	-16.3	11.8	8.	*MLI0269C	13.	*SRL0259C	13.	*HVO0107C	16.
22	AND0238C	-28.0	31	1.3	42.3	0.6	0.6	0.	48.7	2	35.	64.1	-1.3	43.6	-11.	*HVO0107C	-10.	*E 0129C	2.	*ALG0251C	4.
23	HVO0107C	-28.0	31	-1.5	12.0	1.5	1.2	15.	41.8	2	157.	63.8	2.5	13.0	-1.	*AND0238C	1.	*NGR0115C	8.	*MLI0269C	9
24	ALG0251C	-22.0	31	0.6	31.5	3.2	1.5	6.	37.3	1	456.	63.9	9.0	35.5	0.	*GRC0105C	2.	*MTN0223C	10.	*ALG0252C	12
25	D 0087D	-16.0	31	9.3	50.3	1.4	0.7	149.	44.4	2	97.	64.3	13.5	52.4	-2.	*GRC0105C	-0.	*NOR0120A	7.	*HNG0106C	12
26	GRC0105C	-16.0	31	24.5	38.1	1.6	0.9	159.	42.6	1	146.	64.2	19.4	39.9	-10.	*ALG0251C	-6.	*F 0093C	-5.	*D 0087D	0
27	GAB0260C	-10.0	31	11.5	-1.4	1.4	1.1	80.	42.3	1	137.	63.7	14.0	2.0	1.	*HNG0106C	4.	*COG0235C	7.	*TCD0143C	11
28	HNG0106C	-10.0	31	19.3	47.3	0.8	0.6	152.	47.4	1	48.	64.2	22.9	48.0	-6.	*GAB0260C	-3.	*GRC0105C	-1.	*POL0132C	7
29	BOT0297C	-4.0	31	23.2	-22.1	1.9	1.2	42.	40.8	2	204.	63.9	20.6	-27.0	4.	*AFS0021C	5.	*AGL0295C	16.	*GAB0260C	21
30	NOR0120A	2.0	31	14.0	64.3	1.5	0.9	18.	42.7	1	150.	64.5	29.0	69.0	-3.	*TUR0145C	-8.	*OMA0126C	15.	*D 0087D	16
31	TUR0145C	2.0	31	34.1	38.5	2.4	0.9	165.	40.7	1	221.	64.1	26.5	41.6	-9.	*NOR0120A	-9.	*GRC0105C	1.	*OMA0126C	6
32	MWI0308C	8.0	31	33.5	-13.0	1.4	0.6	89.	45.0	2	76.	63.8	35.2	-17.2	4.	*BOT0297C	6.	*AFS0021C	12.	*SOM0312C	14
33	ARS0003C	14.0	31	42.0	23.0	3.1	1.3	132.	38.2	1	369.	63.9	55.5	24.0	-13.	*OMA0126C	-13.	*SOM0312C	2.	*UAE0274C	3
34	MYT0398C	20.0	31	45.0	-12.5	0.6	0.6	0.	48.7	2	32.	63.7	45.0	-12.8	15.	*OMA0126C	21.	*ARS0003C	23.	*MWI0308C	24
35	OMA0126C	26.0	31	45.0	23.5	5.1	3.0	142.	32.4	1	1388.	63.8	42.6	37.3	-2.	*TUR0145C	1.	*ARS0003C	4.	*GRC0105C	8
36	URS0068B	44.0	31	58.4	39.0	2.2	0.9	164.	41.3	2	186.	64.0	53.7	37.4	1.	*OMA0126C	4.	*TUR0145C	6.	*ALG0251C	15
37	MNG0248B	80.0	31	102.4	46.5	3.1	1.2	173.	38.5	2	364.	64.2	98.8	51.9	5.	*URS0075B	8.	*URS0074B	10.	*OMA0126C	18.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
18	MLI0269C	-34.0	32	-2.1	19.2	2.6	1.2	146.	39.3	2	289.	63.9	-12.0	13.8	-11.	*GNP0304C	-7.	*GMB0302D	-7.	*NGR0115C	-2.
19	NGR0115C	-28.0	32	8.1	16.4	2.4	2.0	56.	37.4	1	455.	63.9	13.0	13.0	-1.	*TCD0143C	2.	*MLI0269C	5.	*LBY0280D	16
20	CNR0130C	-22.0	32	-15.4	28.2	1.1	0.6	2.	46.2	2	57.	63.8	-18.0	29.0	-9.	*E 0129C	-9.	*NIG0119D	9.	*MLI0269C	10
21	E 0129C	-22.0	32	-3.0	39.4	1.9	1.0	164.	41.4	2	181.	64.0	3.3	42.3	-10.	*CNR0130C	-9.	*AND0238C	4.	*NIG0119D	7
22	LUX0114C	-16.0	32	5.4	49.5	0.6	0.6	0.	48.7	1	36.	64.2	8.1	48.2	-4.	*YUG0149C	1.	*D 0087D	4.	*AUT0016C	4
23	TCD0143C	-10.0	32	18.0	15.0	3.4	1.7	101.	36.7	2	517.	63.8	23.8	19.3	-7.	*YUG0149C	-7.	*NGR0115C	5.	*LBY0280D	15
24	YUG0149C	-10.0	32	18.3	43.5	1.6	0.6	153.	44.3	2	97.	64.2	22.7	44.5	-16.	*TCD0143C	-16.	*BUL0020D	7.	*HNG0106C	10
25	ZMB0314C	-4.0	32	-28.2	-12.3	2.2	1.3	50.	39.5	1	265.	63.7	33.0	-13.8	-23.	*AFS0021C	-18.	*MWI0308C	-16.	*BOT0297C	-15
26	AFS0021C	2.0	32	24.1	-28.1	2.9	1.4	30.	38.1	2	382.	63.9	24.0	-23.0	3.	*BOT0297C	5.	*ISL0050C	10.	*SWZ0313D	16
27	ISL0050C	2.0	32	-19.3	61.0	2.0	0.6	4.	43.5	2	126.	64.5	-6.2	62.3	2.	*AFS0021C	3.	*FNL0104A	12.	*NOR0120A	13
28	SOM0312C	8.0	32	44.4	6.3	3.4	1.1	81.	38.6	1	338.	63.9	43.2	11.2	6.	*ETH0092D	8.	*ARS0003C	14.	*OMA0125D	20
29	JOR0224C	14.0	32	36.1	31.4	0.9	0.6	130.	47.1	2	48.	63.9	34.0	35.0	-2.	*ARS0275D	5.	*ARS0003C	6.	*TCD0143C	8
30	URS0060C	20.0	32	44.0	61.1	2.3	1.3	156.	39.5	1	315.	64.5	43.6	47.5	3.	*URS0064D	8.	*OMA0126C	8.	*SOM0312C	17
31	UAE0274C	26.0	32	53.3	24.0	0.8	0.7	168.	46.9	2	52.	63.9	54.9	22.4	1.	*SOM0312C	5.	*OMA0125D	6.	*OMA0126C	6
32	MAU0243C	32.0	32	57.0	-14.0	1.3	1.3	0.	42.0	1	151.	63.8	57.0	-10.0	16.	*SOM0312C	23.	*AFS0021C	24.	*TCD0143C	24.
33	URS0074B	80.0	32	92.0	60.2	2.1	1.5	5.	39.3	1	326.	64.4	74.9	58.6	5.	*URS0060C	7.	*MNG0248B	13.	*URS0066E	16.
34	URS0079D	140.0	32	138.2	58.4	2.6	1.5	62.	38.3	1	399.	64.3	128.4	73.3	3.	*URS0074B	3.	*MNG0248B	33.	*URS0066E	90.

Canal **33** - Channel **33** - Canal **33**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
18	GMB0302D	-34.0	33	-15.1	13.2	0.6	0.6	0.	48.7	1	32.	63.7	-16.7	13.4	10.	*MLI0269C	15.	*CTI0237D	18.	*MTN0223D	18
19	CTI0237D	-28.0	33	-5.3	7.3	1.6	1.2	102.	41.3	2	173.	63.7	-8.0	10.1	-3.	*G 0027D	-3.	*SRL0259D	13.	*NIG0119D	13
20	G 0027D	-28.0	33	-3.3	53.5	1.6	0.8	149.	42.9	2	139.	64.3	1.3	51.1	-5.	*CTI0237D	-5.	*FNL0104A	10.	*AUT0016C	10
21	LBY0280D	-22.0	33	18.5	25.4	2.6	1.7	140.	37.9	1	421.	64.1	25.0	20.0	-2.	*NIG0119D	-0.	*MTN0223D	9.	*NGR0115C	10
22	NIG0119D	-22.0	33	7.1	9.3	1.8	1.3	85.	40.7	2	205.	63.8	5.5	14.0	-12.	*ALG0252D	-11.	*LBY0280D	-2.	*E 0129C	8
23	AUT0016C	-16.0	33	12.1	47.3	1.1	0.7	167.	45.5	2	75.	64.2	17.1	48.0	-9.	*FNL0104A	5.	*YUG0148D	7.	*YUG0149C	7
24	CYP0086D	-16.0	33	33.2	35.0	0.6	0.6	0.	48.7	1	37.	64.3	32.3	34.8	-4.	*LBY0280D	-3.	*ARS0275D	8.	*F 0093D	11
25	BUL0020D	-10.0	33	24.5	42.5	0.9	0.6	163.	46.9	1	54.	64.2	22.6	44.3	-5.	*ZAI0146D	-4.	*FNL0104A	6.	*YUG0148D	7
26	ZAI0146D	-10.0	33	24.4	-0.2	1.9	1.4	192.	40.1	1	237.	63.9	29.5	-13.2	-16.	*BUL0020D	-15.	*TCD0143C	-5.	*LBY0280D	-1
27	MLT0147D	-4.0	33	14.2	35.5	0.6	0.6	0.	48.7	2	34.	64.0	14.2	35.5	6.	*LBY0280D	8.	*TCD0143C	20.	*FNL0104A	21
28	FNL0104A	2.0	33	16.4	61.0	2.2	1.2	156.	40.0	1	276.	64.4	8.0	56.0	1.	*G 0027D	3.	*POL0132D	12.	*SWZ0313D	12
29	SWZ0313D	2.0	33	30.5	-26.2	0.6	0.6	0.	48.7	1	34.	63.9	31.9	-26.5	2.	*FNL0104A	3.	*AFS0021C	9.	*AGL0295D	17
30	ETH0092D	8.0	33	40.3	10.0	2.5	1.5	108.	38.4	2	350.	63.9	42.4	13.8	3.	*OMA0125D	4.	*SOM0312C	11.	*ARS0275D	17
31	ARS0275D	14.0	33	46.3	25.4	3.6	1.2	145.	37.9	1	406.	64.0	47.5	6.0	-23.	*ETH0092D	-21.	*SOM0312C	-16.	*OMA0125D	-15
32	COM0207D	20.0	33	44.0	-12.0	0.6	0.6	0.	48.7	2	32.	63.8	43.1	-11.4	6.	*URS0064D	7.	*OMA0125D	21.	*ETH0092D	22
33	URS0064D	20.0	33	45.0	41.1	1.5	0.6	156.	44.7	2	87.	64.1	50.3	40.3	-1.	*URS0066E	2.	*COM0207D	7.	*CYP0086D	10
34	OMA0125D	26.0	33	50.0	18.5	2.7	1.7	46.	37.6	1	413.	63.8	56.0	28.0	-3.	*ARS0275D	-2.	*LBY0280D	8.	*UAE0274C	9
35	URS0066E	44.0	33	65.2	45.5	3.7	2.0	174.	35.6	2	725.	64.2	53.9	37.3	3.	*URS0064D	6.	*LBY0280D	11.	*ARS0275D	12

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
19	SRL0259D	-34.0	34	-11.5	8.3	0.6	0.6	0.	48.7	2	32.	63.7	-11.7	10.0	2.	*MTN0223D 5. *	*GNP0304D 10. *	*CTI0237D 11 *
20	CVA0084A	-28.0	34	12.2	41.5	1.9	0.8	145.	42.4	1	154.	64.3	10.0	47.5	-8.	*TGO0226D -5. *	*F 0093D -3. *	*YUG0148D 4 *
21	TGO0226D	-28.0	34	0.5	8.4	1.2	0.6	104.	45.7	1	65.	63.8	-0.2	11.1	-7.	*CVA0084A -5. *	*MTN0223D -2. *	*HVO0107D 7 *
22	ALG0252D	-22.0	34	1.5	25.0	3.5	2.1	162.	35.7	2	664.	63.9	5.0	19.0	-7.	*NIG0119D -5. *	*MTN0223D -2. *	*LBY0280D 14 *
23	MTN0223D	-22.0	34	-12.3	19.0	2.9	1.4	162.	38.2	1	356.	63.7	-15.7	24.0	-11.	*ALG0251D -9. *	*ALG0252D -5. *	*LBY0280D 7 *
24	F 0093D	-16.0	34	3.1	45.5	2.3	0.9	150.	41.1	1	205.	64.2	9.5	41.2	-7.	*CVA0084A -4. *	*GRC0105D -3. *	*YUG0148D 6 *
25	COG0235D	-10.0	34	14.4	-0.4	1.9	1.0	67.	41.5	2	168.	63.7	15.3	-4.3	-3.	*AGL0295D -1. *	*YUG0148D 3. *	*GAB0260D 10 *
26	YUG0148D	-10.0	34	18.3	43.5	1.6	0.6	153.	44.3	2	97.	64.2	20.1	46.3	-8.	*COG0235D -5. *	*POL0132D -0. *	*CVA0084A 2 *
27	POL0132D	-4.0	34	19.2	52.0	1.4	0.6	158.	45.0	1	85.	64.3	20.0	49.2	-7.	*SDN0230D -5. *	*YUG0148D 2. *	*UKR0063B 4 *
28	SDN0230D	-4.0	34	29.0	7.4	1.9	0.9	128.	42.0	1	154.	63.9	36.0	4.6	-7.	*UGA0051D -5. *	*POL0132D -2. *	*ZAI0146D 9 *
29	AGL0295D	2.0	34	16.3	-12.3	2.5	1.9	71.	37.3	2	433.	63.7	21.0	-6.0	-12.	*MOZ0307D-12. *	*COG0235D 9. *	*ZAI0146D 19 *
30	MOZ0307D	2.0	34	34.3	17.3	3.2	1.2	58.	38.3	2	364.	63.9	35.0	-11.8	-33.	*AGL0295D-33. *	*MWI0308D-16. *	*UGA0051D -2 *
31	UGA0051D	8.0	34	32.1	1.4	1.5	0.9	65.	42.7	1	127.	63.7	34.0	4.3	-1.	*SDN0230D -1. *	*ETH0092D 12. *	*MOZ0307D 12 *
32	LBN0279D	14.0	34	36.0	34.0	0.6	0.6	0.	48.7	2	34.	64.0	35.4	33.7	7.	*ARS0275D 13. *	*ARS0003D 13. *	*ALG0252D 16 *
33	UKR0063B	20.0	34	31.1	48.3	2.1	0.8	171.	42.0	1	165.	64.2	22.1	48.4	-3.	*POL0132D 1. *	*YUG0148D 3. *	*CVA0084A 4 *
34	KWT0113D	26.0	34	47.4	29.2	0.6	0.6	0.	48.7	2	33.	63.9	48.2	28.3	1.	*MOZ0307D 4. *	*OMA0126D 7. *	*OMA0125D 13 *
35	MAU0242D	32.0	34	60.0	-19.0	1.3	1.3	0.	42.0	1	155.	63.9	56.8	-21.2	16.	*AGL0295D 25. *	*SDN0230D 25. *	*ALG0252D 25 *
36	URS0067C	44.0	34	65.1	61.4	2.7	1.3	179.	38.8	1	371.	64.5	50.9	51.9	4.	*URS0066E 8. *	*UKR0063B 8. *	*URS0071A 13 *
37	URS0076A	80.0	34	99.2	64.1	1.4	0.6	165.	45.0	1	90.	64.5	88.8	65.4	-0.	*URS0067C -0. *	*MNG0248C 14. *	*URS0066E 20 *
38	URS0080D	140.0	34	156.5	56.3	2.4	2.0	18.	37.4	1	493.	64.4	151.8	46.8	25.	*URS0076A 27. *	*MNG0248C 31. *	*GM80302D 90 *

Canal **35** - Channel **35** - Canal **35**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
21	GNP0304D	-34.0	35	-14.2	12.0	0.6	0.6	0.	48.7	1	32.	63.7	-16.3	11.8	8.	*MLI0269D 13.	*SRL0259D 13.	*HVD0107D 16.
22	AND0238D	-28.0	35	1.3	42.3	0.6	0.6	0.	48.7	2	36.	64.2	-1.3	43.6	-11.	*HVD0107D-10.	*SUI0140C 1.	*E 0129D 2.
23	HVD0107D	-28.0	35	-1.5	12.0	1.5	1.2	15.	41.8	2	159.	63.8	2.5	13.0	-1.	*AND0238D 1.	*NGR0115D 8.	*MLI0269D 9.
24	ALG0251D	-22.0	35	0.6	31.5	3.2	1.5	6.	37.3	1	462.	64.0	9.0	35.5	-0.	*GRC0105D 2.	*CVA0084A 9.	*MTN0223D 10.
25	GRC0105D	-16.0	35	24.5	38.1	1.6	0.9	159.	42.6	1	148.	64.3	19.4	39.9	-10.	*ALG0251D -6.	*F 0093D -5.	*SUI0140C 1.
26	SUI0140C	-16.0	35	8.1	46.4	1.0	0.8	171.	45.5	2	74.	64.2	6.0	46.1	-3.	*AND0238D 1.	*GRC0105D 2.	*F 0093D 9.
27	GAB0260D	-10.0	35	11.5	-0.4	1.4	1.1	80.	42.3	1	139.	63.7	14.0	2.0	1.	*HNG0106D 4.	*COG0235D 7.	*TCD0143D 11.
28	HNG0106D	-10.0	35	19.3	47.0	0.8	0.6	152.	47.4	1	48.	64.3	22.9	48.0	-7.	*GAB0260D -3.	*GRC0105D -1.	*NOR0121A 1.
29	BOT0297D	-4.0	35	23.2	-22.1	1.9	1.2	42.	40.8	2	207.	63.9	20.6	-27.0	4.	*AFS0021D 5.	*AGL0295D 16.	*GAB0260D 21.
30	NOR0121A	2.0	35	16.4	61.0	2.2	1.2	156.	40.0	1	278.	64.5	28.9	69.0	-7.	*TUR0145D -7.	*OMA0126D 16.	*ISL0050D 17.
31	TUR0145D	2.0	35	34.1	38.5	2.4	0.9	165.	40.7	1	224.	64.2	26.5	41.6	-16.	*NOR0121A-16.	*GRC0105D 1.	*OMA0126D 6.
32	MWI0308D	8.0	35	33.5	-13.0	1.4	0.6	99.	45.0	2	77.	63.8	35.2	-17.2	4.	*BOT0297D 6.	*AFS0021D 12.	*SOM0312D 14.
33	ARS0003D	14.0	35	42.0	23.0	3.1	1.3	132.	38.2	1	374.	63.9	55.5	24.0	-13.	*OMA0126D-13.	*SOM0312D 2.	*UAE0274D 3.
34	MYT0098D	20.0	35	45.0	-12.5	0.6	0.6	0.	48.7	2	32.	63.8	45.0	-12.8	15.	*OMA0126D 21.	*ARS0003D 23.	*MWI0308D 24.
35	OMA0126D	26.0	35	45.0	23.5	5.1	3.0	142.	32.4	1	1406.	63.8	42.6	37.3	-1.	*TUR0145D 1.	*ARS0003D 5.	*GRC0105D 8.
36	URS0071A	44.0	35	64.0	41.3	2.3	0.9	165.	41.1	2	200.	64.1	56.0	41.3	2.	*OMA0126D 6.	*TUR0145D 7.	*GRC0105D 12.
37	MNG0248C	80.0	35	102.4	46.5	3.1	1.2	173.	38.5	2	369.	64.2	98.8	51.9	8.	*URS0074C 10.	*URS0076A 15.	*OMA0126D 18.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
18	MLI0269D	-34.0	36	-2.1	19.2	2.6	1.2	146.	39.3	2	293.	64.0	-12.0	13.8	-11.	*GNP0304D	-7.	*GMB0302E	-6.	*NGR0115D	-2
19	NGR0115D	-28.0	36	8.1	16.4	2.4	2.0	56.	37.4	1	461.	64.0	13.0	13.0	-1.	*TCD0143D	2.	*MLI0269D	5.	*LBY0280E	16
20	CNR0130D	-22.0	36	-15.4	28.2	1.1	0.6	2.	46.2	2	58.	63.8	-18.0	29.0	-9.	*E 0129D	-9.	*NIG0119E	10.	*MLI0269D	10
21	E 0129D	-22.0	36	-3.0	39.4	1.9	1.0	164.	41.4	2	184.	64.1	3.3	42.3	-10.	*CNR0130D	-9.	*AND0238D	4.	*SUI0140C	7
22	LUX0114D	-16.0	36	5.4	49.5	0.6	0.6	0.	48.7	1	36.	64.3	8.1	48.2	-4.	*YUG0149D	1.	*SUI0140C	4.	*AUT0016D	4
23	TCD0143D	-10.0	36	18.0	15.0	3.4	1.7	101.	36.7	2	524.	63.9	23.8	19.3	-7.	*YUG0149D	-7.	*NGR0115D	5.	*LBY0280E	15
24	YUG0149D	-10.0	36	18.3	43.5	1.6	0.6	153.	44.3	2	98.	64.2	22.7	44.5	-16.	*TCD0143D	-16.	*BUL0020E	7.	*HNG0106D	10
25	ZMB0314D	-4.0	36	-28.2	-12.3	2.2	1.4	50.	39.5	1	268.	63.8	33.0	-13.8	-22.	*AFS0021D	-18.	*MWI0308D	-16.	*BOT0297D	-15
26	AFS0021D	2.0	36	24.1	-28.1	2.9	1.4	30.	38.1	2	387.	63.9	24.0	-23.0	3.	*BOT0297D	5.	*ISL0050D	10.	*SWZ0313E	16
27	ISL0050D	2.0	36	-19.3	61.0	2.0	0.6	4.	43.5	2	127.	64.5	-6.2	62.3	2.	*AFS0021D	3.	*FNL0104B	12.	*NOR0121A	12
28	SOM0312D	8.0	36	44.4	6.3	3.4	1.1	81.	38.6	1	343.	64.0	43.2	11.2	6.	*ETH0092E	8.	*ARS0003D	14.	*OMA0125E	20
29	JOR0224D	-14.0	36	36.1	31.4	0.9	0.6	130.	47.1	2	48.	64.0	34.0	35.0	-2.	*ARS0275E	5.	*ARS0003D	6.	*TCD0143D	8
30	URS0060D	20.0	36	44.0	61.1	2.3	1.3	156.	39.5	1	319.	64.5	43.6	47.5	3.	*URS0064E	8.	*OMA0126D	8.	*SOM0312D	17
31	UAE0274D	26.0	36	53.3	24.0	0.8	0.7	168.	46.9	2	51.	63.9	54.9	22.4	1.	*SOM0312D	5.	*OMA0125E	6.	*OMA0126D	6
32	MAU0243D	32.0	36	57.0	-14.0	1.3	1.3	0.	42.0	1	153.	63.8	57.0	-10.0	16.	*SOM0312D	23.	*AFS0021D	24.	*TCD0143D	24
33	URS0074C	80.0	36	92.0	60.2	2.1	1.5	5.	39.3	1	331.	64.5	74.9	58.6	4.	*URS0060D	7.	*MNG0248D	12.	*MNG0248C	13
34	URS0079E	140.0	36	138.2	58.4	2.6	1.5	62.	38.3	1	404.	64.4	128.4	73.3	2.	*URS0074C	3.	*MNG0248D	33.	*MNG0248C	33

Canal **37** - Channel **37** - Canal **37**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
18	GMB0302E	-34.0	37	-15.1	13.2	0.6	0.6	0.	48.7	1	32.	63.8	-16.7	13.4	10.	*MLI0269D	15.	*CTI0237E	18.	*MTN0223E	18
19	CTI0237E	-28.0	37	-5.3	7.3	1.6	1.2	102.	41.3	2	175.	63.8	-8.0	10.1	-3.	*G 0027E	-3.	*SRL0259E	13.	*NIG0119E	13
20	G 0027E	-28.0	37	-3.3	53.5	1.6	0.8	149.	42.9	2	141.	64.4	1.3	51.1	-5.	*CTI0237E	-5.	*FNL0104B	10.	*AUT0016D	11
21	LBY0280E	-22.0	37	18.5	25.4	2.6	1.7	140.	37.9	1	426.	64.2	25.0	20.0	-2.	*NIG0119E	-0.	*MTN0223E	9.	*NGR0115D	10
22	NIG0119E	-22.0	37	7.1	9.3	1.8	1.3	85.	40.7	2	207.	63.9	5.5	14.0	-12.	*ALG0252E	-11.	*LBY0280E	-2.	*E 0129D	8
23	AUT0016D	-16.0	37	12.1	47.3	1.1	0.7	167.	45.5	2	76.	64.3	17.1	48.0	-0.	*FNL0104B	5.	*YUG0148E	7.	*YUG0149D	7
24	CYP0086E	-16.0	37	33.2	35.0	0.6	0.6	0.	48.7	1	37.	64.4	32.3	34.8	-4.	*LBY0280E	-3.	*ARS0275E	8.	*F 0093E	11
25	BUL0020E	-10.0	37	24.5	42.5	0.9	0.6	163.	46.9	1	54.	64.3	22.6	44.3	-5.	*ZAI0146E	-4.	*FNL0104B	6.	*YUG0148E	7
26	ZAI0146E	-10.0	37	24.4	-0.2	1.9	1.4	192.	40.1	1	240.	63.9	29.5	-13.2	-16.	*BUL0020E	-15.	*TCD0143D	-5.	*LBY0280E	-1
27	FNL0104B	2.0	37	16.4	61.0	2.2	1.2	156.	40.0	1	280.	64.5	8.0	56.0	1.	*G 0027E	3.	*POL0132E	12.	*SWZ0313E	12
28	SWZ0313E	2.0	37	30.5	-26.2	0.6	0.6	0.	48.7	1	34.	64.0	31.9	-26.5	2.	*FNL0104B	3.	*AFS0021D	9.	*AGL0295E	17
29	ETH0092E	8.0	37	40.0	10.0	2.5	1.5	108.	38.4	2	355.	63.9	42.4	13.0	3.	*OMA0125E	4.	*SOM0312D	11.	*ARS0275E	18
30	ARS0275E	14.0	37	46.3	25.4	3.6	1.2	145.	37.9	1	411.	64.0	47.5	6.0	-23.	*ETH0092E	-21.	*SOM0312D	-16.	*OMA0125E	-15
31	URS0064E	20.0	37	45.0	41.1	1.5	0.6	156.	44.7	2	88.	64.2	50.3	40.3	0.	*URS0066F	2.	*CYP0086E	10.	*ARS0275E	11
32	OMA0125E	26.0	37	50.0	18.5	2.7	1.7	46.	37.6	1	419.	63.9	56.0	28.0	-3.	*ARS0275E	-2.	*LBY0280E	8.	*UAE0274D	9
33	URS0066F	44.0	37	65.2	45.5	3.7	2.0	174.	35.6	2	734.	64.2	87.3	49.2	2.	*MNG0248D	3.	*URS0067D	15.	*URS0074C	19
34	MNG0248D	80.0	37	102.4	46.5	3.1	1.2	173.	38.5	2	371.	64.2	98.8	51.9	3.	*URS0066F	5.	*URS0074C	10.	*URS0076B	15

Canal **38** - Channel **38** - Canal **38**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
18	SRL0259E	-34.0	38	-11.5	8.3	0.6	0.6	0.	48.7	2	32.	63.8	-11.7	10.0	2.	*MTN0223E 5.	*GNP0304E 10.	*CTI0237E 11
19	TGO0226E	-28.0	38	0.5	8.4	1.2	0.6	104.	45.7	1	66.	63.9	-0.2	11.1	-3.	*MTN0223E -2.	*HVO0107E 7.	*ALG0252E 8
20	ALG0252E	-22.0	38	1.5	25.0	3.5	2.1	162.	35.7	2	672.	63.9	5.0	19.0	-7.	*NIG0119E -5.	*MTN0223E -2.	*LBY0280E 14
21	MTN0223E	-22.0	38	-12.3	19.0	2.9	1.4	162.	38.2	1	361.	63.8	-15.7	24.0	-11.	*ALG0251E -9.	*ALG0252E -5.	*LBY0280E 7
22	F 0093E	-16.0	38	3.1	45.5	2.3	0.9	150.	41.1	1	207.	64.2	9.5	41.2	-5.	*GRC0105E -3.	*YUG0148E 6.	*ALG0252E 8
23	COG0235E	-10.0	38	14.4	-0.4	1.9	1.0	67.	41.5	2	170.	63.8	15.3	-4.3	-3.	*AGL0295E -1.	*YUG0148E 3.	*ZAI0146F 11
24	YUG0148E	-10.0	38	18.3	43.5	1.6	0.6	153.	44.3	2	98.	64.3	20.1	46.3	-7.	*COG0235E -5.	*POL0132E -0.	*UKR0063C 4
25	POL0132E	-4.0	38	19.2	52.0	1.4	0.6	158.	45.0	1	86.	64.4	20.0	49.2	-7.	*SDN0230E -5.	*YUG0148E 2.	*UKR0063C 4
26	SDN0230E	-4.0	38	29.0	7.4	1.9	0.9	128.	42.0	1	156.	63.9	36.0	4.6	-7.	*UGA0051E -5.	*POL0132E -2.	*ZAI0146F 9
27	AGL0295E	2.0	38	16.3	-12.3	2.5	1.9	71.	37.3	2	438.	63.7	20.0	-6.0	-12.	*MOZ0307E-12.	*COG0235E 9.	*ZAI0146F 18
28	MOZ0307E	2.0	38	34.3	17.3	3.2	1.2	58.	38.3	2	369.	64.0	35.0	-11.8	-33.	*AGL0295E-33.	*MWI0308E-16.	*UGA0051E -2
29	UGA0051E	8.0	38	32.1	1.4	1.5	0.9	65.	42.7	1	128.	63.8	34.0	4.3	-1.	*SDN0230E -1.	*ETH0092E 12.	*MOZ0307E 12
30	LBN0279E	14.0	38	36.0	34.0	0.6	0.6	0.	48.7	2	34.	64.0	35.4	33.7	7.	*ARS0275E 13.	*ARS0003E 13.	*ALG0252E 16
31	UKR0063C	20.0	38	31.1	48.3	2.1	0.8	171.	42.0	1	167.	64.2	22.1	48.4	-2.	*POL0132E 1.	*YUG0148E 3.	*F 0093E 14
32	KWT0113E	26.0	38	47.4	29.2	0.6	0.6	0.	48.7	2	34.	64.0	48.2	28.3	1.	*MOZ0307E 4.	*OMA0126E 7.	*OMA0125E 13
33	MAU0242E	32.0	38	60.0	-19.0	1.3	1.3	0.	42.0	1	157.	63.9	56.8	-21.2	16.	*AGL0295E 25.	*SDN0230E 25.	*ALG0252E 25
34	URS0067D	44.0	38	65.1	61.4	2.7	1.3	179.	38.8	1	376.	64.5	50.9	51.9	4.	*URS0066F 8.	*UKR0063C 8.	*URS0071B 13
35	URS0076B	80.0	38	99.2	64.1	1.4	0.6	165.	45.0	1	91.	64.6	88.8	65.4	-1.	*URS0067D -0.	*MNG0248E 14.	*MNG0248D 14

Canal 39 - Channel 39 - Canal 39

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
19	GNP0304E	-34.0	39	-14.2	12.0	0.6	0.6	0.	48.7	1	32.	63.8	-16.3	11.8	7.	*MLI0269E	13.	*SRL0259E	13.	*HVD0107E	16
20	AND0238E	-28.0	39	1.3	42.3	0.6	0.6	0.	48.7	2	36.	64.3	-1.3	43.6	-11.	*HVD0107E	-10.	*SUI0140D	1.	*E 0129E	2
21	HVD0107E	-28.0	39	-1.5	12.0	1.5	1.2	15.	41.8	2	161.	63.9	2.5	13.0	-1.	*AND0238E	1.	*NGR0115E	8.	*MLI0269E	9
22	ALG0251E	-22.0	39	0.6	31.5	3.2	1.5	6.	37.3	1	468.	64.0	9.0	35.5	-1.	*GRC0105E	2.	*CVA0085A	8.	*MTN0223E	10
23	GRC0105E	-16.0	39	24.5	38.1	1.6	0.9	159.	42.6	1	150.	64.3	19.4	39.9	-10.	*ALG0251E	-6.	*F 0093E	-5.	*SUI0140D	1
24	SUI0140D	-16.0	39	8.1	46.4	1.0	0.8	171.	45.5	2	75.	64.3	6.0	46.1	-3.	*AND0238E	1.	*GRC0105E	2.	*F 0093E	9
25	HNG0106E	-10.0	39	19.3	47.0	0.8	0.6	152.	47.4	1	49.	64.3	22.9	48.0	-7.	*ZAI0146F	-3.	*GRC0105E	-1.	*NOR0121B	1
26	ZAI0146F	-10.0	39	24.4	-0.2	1.9	1.4	192.	40.1	1	242.	64.0	29.5	-13.2	-20.	*BOT0297E	-15.	*HNG0106E	-14.	*MWI0308E	-14
27	BOT0297E	-4.0	39	23.2	-22.1	1.9	1.2	42.	40.8	2	209.	64.0	20.6	-27.0	4.	*AFS0021E	5.	*AGL0295E	16.	*ZAI0146F	20
28	NOR0121B	2.0	39	16.4	61.0	2.2	1.2	156.	43.0	1	281.	64.5	28.9	69.0	-7.	*TUR0145E	-7.	*OMA0126E	16.	*ISL0050E	17
29	TUR0145E	2.0	39	34.1	38.5	2.4	0.9	165.	40.7	1	226.	64.2	26.5	41.6	-16.	*NOR0121B	-16.	*GRC0105E	1.	*OMA0126E	6
30	MWI0308E	8.0	39	33.5	-13.0	1.4	0.6	89.	45.0	2	77.	63.9	35.2	-17.2	4.	*BOT0297E	6.	*AFS0021E	12.	*SOM0312E	14
31	ARS0003E	14.0	39	42.0	23.0	3.1	1.3	132.	38.2	1	379.	64.0	55.5	24.0	-13.	*OMA0126E	-13.	*SOM0312E	2.	*TUR0145E	10
32	MYT0098E	20.0	39	45.0	-12.5	0.6	0.6	0.	48.7	2	33.	63.9	45.0	-12.8	8.	*URS0064F	8.	*OMA0126E	21.	*ARS0003E	23
33	URS0064F	20.0	39	45.0	41.1	1.5	0.6	156.	44.7	2	89.	64.2	50.3	40.3	-3.	*OMA0126E	1.	*TUR0145E	4.	*URS0071B	7
34	OMA0126E	26.0	39	45.0	23.5	5.1	3.0	142.	32.4	1	1424.	63.9	42.6	37.3	-4.	*URS0064F	0.	*TUR0145E	1.	*ARS0003E	5
35	URS0071B	44.0	39	64.0	41.3	2.3	0.9	165.	41.1	2	203.	64.2	56.0	41.3	1.	*OMA0126E	6.	*TUR0145E	7.	*URS0064F	8
36	MNG0248E	80.0	39	102.4	46.5	3.1	1.2	173.	38.5	2	374.	64.3	98.8	51.9	8.	*URS0074D	10.	*URS0076B	15.	*OMA0126E	18

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
19	MLI0269E	-34.0	40	-2.1	19.2	2.6	1.2	146.	39.3	2	296.	64.0	-12.0	13.8	-9.	*GNP0304E -7. *	*NGR0115E -2. *	*CVA0085A 3 *
20	CVA0085A	-28.0	40	4.0	43.4	4.0	1.3	155.	37.1	1	528.	64.3	18.0	40.0	-9.	*NGR0115E -8. *	*YUG0149E 2. *	*ALG0251E 11 *
21	NGR0115E	-28.0	40	8.1	16.4	2.4	2.0	56.	37.4	1	467.	64.1	12.0	23.5	-13.	*CVA0085A-13. *	*TCD0143E 4. *	*MLI0269E 9 *
22	CNR0130E	-22.0	40	-15.4	28.2	1.1	0.6	2.	46.2	2	59.	63.9	-18.0	29.0	-9.	*E 0129E -9. *	*MLI0269E 10. *	*ALG0251E 12 *
23	E 0129E	-22.0	40	-3.0	39.4	1.9	1.0	164.	41.4	2	186.	64.1	3.3	42.3	-11.	*CNR0130E -9. *	*CVA0085A -5. *	*AND0238E 4 *
24	LUX0114E	-16.0	40	5.4	49.5	0.6	0.6	0.	48.7	1	37.	64.3	8.1	48.2	-8.	*CVA0085A -7. *	*YUG0149E 1. *	*SUI0140D 4 *
25	TCD0143E	-10.0	40	18.0	15.0	3.4	1.7	101.	36.7	2	531.	63.9	23.8	19.3	-7.	*YUG0149E -7. *	*NGR0115E 5. *	*MLI0269E 19 *
26	YUG0149E	-10.0	40	18.3	43.5	1.6	0.6	153.	44.3	2	99.	64.3	22.7	44.5	-16.	*TCD0143E-16. *	*CVA0085A 2. *	*HNG0106E 10 *
27	ZMB0314E	-4.0	40	-28.2	-12.3	2.2	1.3	50.	39.5	1	272.	63.9	33.0	-13.8	-22.	*AFS0021E-18. *	*MWI0308E-16. *	*BOT0297E-15 *
28	AFS0021E	2.0	40	24.1	-28.1	2.9	1.4	30.	38.1	2	392.	64.0	24.0	-23.0	4.	*BOT0297E 5. *	*ISL0050E 10. *	*SOM0312E 20 *
29	ISL0050E	2.0	40	-19.3	61.0	2.0	0.6	4.	43.5	2	129.	64.6	-6.2	62.3	1.	*AFS0021E 3. *	*CVA0085A 6. *	*NOR0121B 12 *
30	SOM0312E	8.0	40	44.4	6.3	3.4	1.1	81.	38.6	1	347.	64.0	43.2	11.2	11.	*ARS0003E 14. *	*OMA0126E 20. *	*AFS0021E 22 *
31	JOR0224E	14.0	40	36.1	31.4	0.9	0.6	130.	47.1	2	49.	64.0	34.0	35.0	-2.	*CVA0085A 2. *	*ARS0003E 6. *	*TCD0143E 8 *
32	URS0065A	20.0	40	33.2	63.6	1.0	0.6	160.	46.3	1	68.	64.6	37.8	61.5	8.	*CVA0085A 10. *	*OMA0126E 18. *	*NOR0121B 22 *
33	KWT0113F	26.0	40	47.4	29.2	0.6	0.6	0.	48.7	2	34.	64.0	48.2	28.3	5.	*OMA0126E 8. *	*NGR0115E 13. *	*CVA0085A 16 *
34	URS0074D	80.0	40	92.0	60.2	2.1	1.5	5.	39.3	1	335.	64.5	87.3	49.2	8.	*MNG0248E 9. *	*URS0079F 24. *	*URS0065A 27 *
35	URS0079F	140.0	40	138.2	58.4	2.6	1.5	62.	38.3	1	409.	64.5	128.4	73.3	3.	*URS0074D 3. *	*MNG0248E 33. *	*GNP0304E 90 *

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/35-F/E/S
31 janvier 1977

GROUPE DE TRAVAIL 5A

Note du Président du Groupe de travail 5A

ANALYSE DE L'EXERCICE DE PLANIFICATION DU SOUS-GROUPE DE TRAVAIL 5A3

	Page
Note	i
Explication des colonnes	2
Données de sortie résumées	3 - 47

WORKING GROUP 5A

Note by the Chairman of Working Group 5A

ANALYSIS OF THE PLANNING EXERCISE FROM SUB-GROUP 5A3

	Page
Note	ii
Explanation of the Columns	2
Summary output	3 - 47

GRUPO DE TRABAJO 5A

Nota del Presidente del Grupo de trabajo 5A

ANÁLSIS DEL EJERCICIO DE PLANIFICACIÓN EFECTUADO POR EL SUBGRUPO 5A3

	Page
Nota	iii
Explicación de las columnas	2
Resumen de los resultados	3 - 47

ARCHIVES U.I.T. GENÈVE

GROUPE DE TRAVAIL 5A

Note du Président du Groupe de travail 5A

ANALYSE DE L'EXERCICE DE PLANIFICATION DU SOUS-GROUPE DE TRAVAIL 5A3

1. Les délégations ont déjà reçu le Document N° DT/36, qui contient une analyse résumée TDF. Ainsi qu'on l'a annoncé au sein du Groupe de travail 5A, celle-ci devait être suivie d'une analyse résumée de l'IFRB ainsi que d'une analyse plus détaillée.

2. L'exemple de plan pour les Régions 1 et 3 annexé au présent document a été établi par le Sous-Groupe de travail 5A3, en application du mandat approuvé par le Groupe de travail 5A. Les programmes d'analyse de l'IFRB ont été appliqués sur la base des informations communiquées par le Sous-Groupe de travail 5A3. Les trois points de repère utilisés pour chaque faisceau sont le premier, le troisième et le cinquième de la série de six points de repère indiquée pour chaque faisceau dans le Document N° 149.

3. Les données de sortie résumées (décrites au paragraphe 5.1 de l'Annexe 2 au Document N° 27) sont jointes au présent document. On trouvera ci-après l'explication des différentes colonnes.

4. La présente analyse s'écarte de l'anaylse TDF pour les raisons suivantes :

a) les données d'entrée ont été remises à TDF et à l'IFRB à des moments différents, ce qui a donné aux experts le temps d'apporter de légères modifications au Plan exemple;

b) le programme de l'IFRB n'a pas utilisé d'éllipses calculées à nouveau pour les nouvelles positions orbitales;

c) les points de référence utilisés dans le programme TDF correspondent aux polygones de la zone de service alors que le programme de l'IFRB utilise trois des six points de repère indiqués par les délégations (afin d'abréger le passage à l'ordinateur).

Ainsi, il importe que les délégations qui désirent comparer les résultats de notre groupe de travail avec ceux du deuxième plan établi par l'autre Groupe de travail le fassent sur la base d'analyses provenant du même ordinateur.

5. Toutes les délégations pourront obtenir les données de sortie détaillées (paragraphe 5.1 b) de l'Annexe 2 au Document N° 27), contre signature, en s'adressant à un comptoir spécial situé à côté du Service de distribution des documents, à une date qui sera indiquée ultérieurement.

S.R. TEMPLE
Président du Groupe de travail 5A

WORKING GROUP 5A

Note by the Chairman of Working Group 5A

ANALYSIS OF THE PLANNING EXERCISE FROM SUB-GROUP 5A3

1. Delegations have already received Document No. DT/36 containing the TDF summary analysis. As announced in Working Group 5A, this was to be followed by an I.F.R.B. summary analysis and a more detailed analysis.

2. The attached example of a Regions 1 and 3 Plan has been produced by Sub-Working Group 5A3 under the terms of reference approved by Working Group 5A. On the basis of information received from Working Group 5A3, the I.F.R.B. analysis programmes have been applied. The three test points used for each beam are the first, third and fifth of the series of six test points shown for each beam in Document No. 149.

3. The Summary Output (described in Annex 2 to Document No. 27, para. 5.1) is attached. The explanation of the columns appears hereafter.

4. The present analysis differs from the TDF analysis for the following reasons:

a) the input data were given to the TDF and the I.F.R.B. at different points in time and this permitted the experts to make some slight changes in the example Plan;

b) the I.F.R.B. programme has not used elipses re-calculated for the new orbit positions;

c) the test points used in the TDF programme correspond to the service area polygon whereas the I.F.R.B. programme has used 3 (to shorten the computer running time) from the 6 test points given by Delegations.

Thus it is important that Delegations wishing to compare the results from this Working Group with the results of the second Plan produced by the other Working Group should do so on the basis of the analysis by the same computer.

5. The detailed output (Annex 2 to Document No. 27, para. 5.1 b)) may be collected by each Delegation, against signautre, from a special desk located next to the Document Distribution Service at a time to be announced.

S.R. TEMPLE
Chairman
Working Group 5A

GRUPO DE TRABAJO 5A

Nota del Presidente del Grupo de trabajo 5A

ANÁLISIS DEL EJERCICIO DE PLANIFICACIÓN EFECTUADO POR EL SUBGRUPO DE TRABAJO 5A3

1. Las delegaciones ya han recibido el Documento N.° DT/36 que contiene el análisis sumario por el computador TDF. Como ha anunciado el Grupo de trabajo 5A, a éste siguió un análisis sumario de la IFRB, así como uno más detallado.

2. El ejemplo adjunto de un plan para las Regiones 1 y 3 ha sido elaborado por el Subgrupo de trabajo 5A3 de acuerdo con el mandato aprobado por el Grupo de trabajo 5A. En base de la información recibida del mencionado Subgrupo de trabajo se han aplicado los programas de análisis de la IFRB. Los tres puntos de prueba utilizados para cada haz son el primero, el tercero y el quinto de la serie de seis puntos de prueba indicados para cada haz en el Documento N.° 149.

3. Se acompaña el Resumen de los resultados (contenido en el Anexo 2 al Documento N.° 27, punto 5.1). La explicación de las columnas se da a continuación.

4. El presente análisis difiere del análisis TDF por las razones siguientes:

a) los datos de entrada se introdujeron en los programas de TDF y de la IFRB en diferentes momentos, lo que permitió a los expertos efectuar algunas modificaciones en el plan del ejemplo;

b) el programa de la IFRB no ha utilizado elipses calculadas de nuevo para las nuevas posiciones orbitales;

c) los puntos de prueba utilizados en el programa de TDF corresponden al polígono de la zona de servicio, mientras que, para reducir el tiempo de pasada del computador, en el programa de la IFRB se han utilizado tres de los seis puntos de prueba indicados por las delegaciones.

Por tanto, es importante que las delegaciones que deseen comparar los resultados obtenidos por este Grupo de trabajo con los resultados del segundo plan elaborado por el otro Grupo de trabajo, lo hagan sobre la base del análisis por el mismo computador.

5. Cada delegación podrá obtener el detalle de los resultados (Anexo 2 al Documento N.° 27, punto 5.1.b)), contra recibo firmado, en una mesa especial situada cerca del Servicio de distribución de documentos, en fecha que oportunamente se anunciará.

El Presidente del Grupo de trabajo 5A

S.R. TEMPLE

Explication des colonnes

Les numéros des colonnes entre parenthèses carrées correspondent aux numéros des colonnes dans la Liste des demandes.

Col.

1 - Symbole désignant le pays et numéro de référence de l'I.F.R.B. [Col. 3, 1]

2 - Longitude nominale [Col. 7]

3 - Numéro du canal

4 - Coordonnées géographiques du point de visée [Col. 8] mais en degrés et dixièmes de degrés

5 - Ouverture du faisceau d'antenne. Dans le cas d'une antenne elliptique, la colonne comporte deux valeurs représentant respectivement le grand axe et le petit axe de l'allipse [Col. 10, 11]

6 - Orientation de l'ellipse (conformément à la définition donnée dans la lettre-circulaire de l'I.F.R.B. N° 358) [Col. 12]

7 - Gain maximal

8 - Polarisation

9 - 9a Puissance en watt
9b P.i.r.e. en dBW

10 - Coordonnées géographiques du point de contrôle critique pour lequel est indiquée la valeur de la marge de protection

11 - Marge équivalente de protection

12 - Indications relatives aux trois principaux brouilleurs. Chaque colonne contient l'indication du brouilleur (symbole désignant le pays et numéro de série) et la marge de protection qui lui correspond en dB.
13
14

Explanation of the Columns

Column numbers shown between square brackets are those of the corresponding columns in the List of Requirements

Col.

1 - Country symbol and I.F.R.B. Serial Number [Cols. 3, 1]

2 - Nominal longitude [Col. 7]

3 - Channel number

4 - Boresight geographical coordinates [Col. 8] but in degrees and tenths

5 - Antenna aperture. For an elliptical antenna this column contains two figures corresponding respectively to the major axis and the minor axis [Cols. 10, 11]

6 - Orientation of the ellipse, as defined in I.F.R.B. Circular-letter No. 358 [Col. 12]

7 - Maximal gain

8 - Polarisation

9 - 9a Power in watts
9b E.i.r.p. in dBW

10 - Geographical coordinates of the critical test point for which the protection margin is indicated

11 - Equivalent protection margin

12 - Indication of the three main interferers; each of these three columns indicates the designation of the interferer (country symbol and serial number) and the corresponding protection margin in dB.
13
14

Explicación de las columnas

Los números de las columnas entre corchetes corresponden a los números de las columnas en la Lista de solicitudes.

Col.

1 - Símbolo de país y número de referencia de la I.F.R.B. [Col. 3, 1]

2 - Longitud nominal [Col. 7]

3 - Número del canal

4 - Coordenadas geográficas del centro de puntería [Col. 8] pero en grados y décimas

5 - Abertura del haz de antena. Si se trata de una antena elíptica se indican en la columna dos valores que representan los ejes mayor y menor, respectivamente de la elipse [Col. 10, 11]

6 - Orientación de la elipse (véase la carta circular N.° 358 de la I.F.R.B.) [Col. 12]

7 - Ganancia máxima

8 - Polarización

9 - 9a Potencia en vatios
9b P.i.r.e. en dBW

10 - Coordenadas geográficas del punto de prueba crítico para el que se indica el valor del margen de protección

11 - Margen de protección equivalente

12 - Indicaciones relativas a las tres fuentes principales de interferencia. En cada columna se indica la fuente de interferencia (símbolo de país y número de referencia) y el margen de protección que le corresponde en dB.
13
14

Canal 1 - Channel 1 - Canal 1

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
1	OCE0101A	-160.0	1	-144.3	-16.0	3.8	3.3	176.	33.2	1	998.	63.2	-153.0	-23.0	24.	*NZL0287A	24.	*FJI0193A	42.	*NCL0100A	43
2	CVA0083A	-34.0	1	12.2	41.5	0.6	0.6	0.	48.7	2	33.	63.9	15.0	44.0	-2.	*HNG0106A	1.	*NIG0119A	6.	*SUI0140A	7
3	NIG0119A	-34.0	1	7.1	9.3	1.8	1.3	85.	40.7	1	193.	63.6	5.5	14.0	3.	*MLI0118A	5.	*CVA0083A	14.	*G 0027A	15
4	G 0027A	-28.0	1	-3.3	53.5	1.6	0.8	149.	42.9	1	125.	63.9	1.3	51.1	3.	*SUI0140A	7.	*MLI0118A	9.	*GHA0108A	12
5	MLI0118A	-28.0	1	-6.5	13.2	1.9	1.1	170.	41.0	2	169.	63.3	-2.5	23.3	-19.	*LBY0280A	-17.	*G 0027A	-14.	*CVA0083A	-8
6	LBY0280A	-22.0	1	15.3	29.3	1.8	1.7	127.	39.3	2	273.	63.6	25.0	20.0	-6.	*MLI0118A	-0.	*NIG0119A	0.	*TCD0143A	2
7	SUI0140A	-16.0	1	8.1	46.4	1.0	0.8	171.	45.5	1	66.	63.7	6.0	46.1	4.	*G 0027A	6.	*BEL0018A	13.	*ALG0251A	20
8	COG0235A	-10.0	1	14.4	-0.4	1.9	1.0	67.	41.5	1	151.	63.3	18.5	4.3	4.	*TCD0143A	7.	*NIG0119A	10.	*HNG0106A	12
9	HNG0106A	-10.0	1	19.3	47.0	0.8	0.6	152.	47.4	2	43.	63.8	22.9	48.0	-2.	*BLR0062A	3.	*TCD0143A	4.	*CVA0083A	7
10	RHS0135A	2.0	1	29.0	-18.3	1.3	0.8	87.	43.8	1	90.	63.4	25.2	-17.6	5.	*S 0138A	7.	*SOM0312A	17.	*COG0235A	17
11	S 0138A	2.0	1	16.0	61.0	1.1	0.9	144.	44.2	2	95.	64.0	13.3	55.3	2.	*DDR0216A	8.	*G 0027A	8.	*SUI0140A	9
12	SOM0312A	8.0	1	44.4	6.3	3.4	1.1	81.	38.6	2	305.	63.5	43.2	11.2	9.	*SYR0229A	13.	*ETH0092A	14.	*S 0138A	22
13	SYR0229A	8.0	1	38.0	34.5	1.0	0.6	19.	46.6	1	51.	63.6	35.9	35.7	1.	*SOM0312A	4.	*LBY0280A	6.	*RHS0135A	19
14	BLR0062A	14.0	1	27.5	52.5	1.0	0.6	3.	46.5	2	54.	63.8	23.5	53.9	0.	*S 0138A	3.	*HNG0106A	5.	*SUI0140A	11
15	BHR0255A	20.0	1	50.3	26.1	0.6	0.6	0.	48.7	1	30.	63.5	52.3	17.0	-21.	*SOM0312A	-21.	*PAK0127A	-4.	*ETH0092A	-3
16	COM0207A	26.0	1	44.0	-12.0	0.6	0.6	0.	48.7	2	28.	63.2	43.1	-11.4	8.	*SOM0312A	10.	*MDG0236A	13.	*PAK0127A	24
17	PAK0127A	38.0	1	69.4	29.5	2.2	1.9	14.	38.1	1	351.	63.6	75.0	32.3	10.	*NPL0122A	13.	*SOM0312A	20.	*IND0042A	22
18	NPL0122A	50.0	1	84.0	28.0	1.2	0.6	154.	45.8	1	60.	63.6	80.2	28.8	-2.	*PAK0127A	-2.	*IND0039A	13.	*IND0042A	16
19	IND0039A	56.0	1	72.4	11.1	0.9	0.8	105.	45.7	1	57.	63.2	73.0	8.3	7.	*IND0041A	10.	*NPL0122A	16.	*IND0046A	19
20	CHN0157A	62.0	1	102.3	28.1	2.4	1.3	120.	39.3	2	272.	63.7	97.5	33.0	5.	*CHN0156A	7.	*PAK0127A	11.	*IND0046A	19
21	IND0046A	68.0	1	84.0	20.0	1.3	0.8	43.	44.1	1	83.	63.3	87.5	21.7	4.	*THA0142A	8.	*IND0042A	13.	*CHN0157A	15
22	CBG0299A	74.0	1	104.4	12.3	0.8	0.7	42.	46.7	1	46.	63.4	104.0	14.1	-1.	*THA0142A	4.	*CHN0157A	6.	*INS0029A	7
23	SNG0151A	74.0	1	103.4	1.2	0.6	0.6	0.	48.7	2	29.	63.3	104.0	0.5	-2.	*MLA0228A	-1.	*INS0029A	8.	*LAO0284A	9
24	MLA0228A	80.0	1	114.3	3.4	2.0	0.9	45.	41.7	2	149.	63.4	109.0	2.4	1.	*SNG0151A	2.	*INS0034A	11.	*INS0029A	18
25	INS0034A	86.0	1	121.4	-8.5	1.5	0.9	3.	43.2	2	106.	63.4	125.0	-9.5	6.	*AUS0004A	8.	*MLA0228A	14.	*INS0033A	14
26	CHN0160A	92.0	1	123.3	46.0	2.0	1.4	145.	39.7	1	257.	63.8	122.5	38.3	1.	*J 0111A	4.	*CHN0161A	8.	*CHN0157A	9

Canal **1** suite - Channel **1** cont. - Canal **1** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
27	AUS0004A	104.0	1	121.4	-24.5	3.4	1.9	56.	36.1	1	524.	63.3	126.6	-31.9	8.	*AUS0006A	9.	*J 0111A	18.	*OCE0101A	24
																*		*		*	
28	J 0111A	110.0	1	134.4	31.5	3.4	2.9	46.	34.3	2	829.	63.5	141.9	45.5	6.	*CHN0160A	6.	*AUS0004A	20.	*OCE0101A	25
																*		*		*	
29	NZL0287A	134.0	1	173.3	-41.3	2.5	1.0	38.	40.3	1	226.	63.8	171.8	-34.1	16.	*AUS0014A	20.	*OCE0101A	23.	*AUS0004A	24

Canal **2** - Channel **2** - Canal **2**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
30	GNP0304A	-34.0	2	-14.2	12.0	0.6	0.6	0.	48.7	2	29.	63.3	-16.3	11.8	7.	*MLI0118A	10.	*CVA0083A	14.	*CAF0258A	17
																*		*		*	
31	GHA0108A	-28.0	2	-1.3	7.5	1.5	1.0	101.	42.7	1	116.	63.3	-2.9	11.0	4.	*MLI0118A	8.	*ALG0251A	13.	*MLI0269A	13
																*		*		*	
32	ALG0251A	-22.0	2	0.6	31.5	3.2	1.5	6.	37.3	1	414.	63.5	9.0	35.5	8.	*LBY0280A	12.	*GHA0108A	14.	*TCD0143A	15
																*		*		*	
33	BEL0018A	-16.0	2	4.3	50.3	0.7	0.6	160.	48.0	2	38.	63.8	6.4	50.3	1.	*DDR0216A	6.	*D 0087A	8.	*SDN0232A	10
																*		*		*	
34	GNE0303A	-16.0	2	10.3	1.4	0.6	0.6	0.	48.7	1	29.	63.3	11.3	2.4	2.	*TCD0143A	5.	*COG0235A	8.	*ALG0251A	13
																*		*		*	
35	BUL0020A	-10.0	2	24.5	42.5	0.9	0.6	163.	46.9	1	49.	63.8	22.6	44.3	-3.	*TCD0143A	-1.	*ALG0251A	4.	*ROU0136A	6
																*		*		*	
36	TCD0143A	-10.0	2	18.0	15.0	3.4	1.7	101.	36.7	2	468.	63.4	23.8	19.3	2.	*SDN0232A	5.	*ROU0136A	10.	*ISR0110A	12
																*		*		*	
37	ISR0110A	-4.0	2	34.4	31.3	0.6	0.6	0.	48.7	2	32.	63.7	34.8	29.5	-1.	*TCD0143A	-0.	*UGA0051A	12.	*IRN0109A	14
																*		*		*	
38	DDR0216A	2.0	2	12.2	52.0	0.9	0.6	154.	46.9	1	49.	63.8	9.9	51.4	2.	*BEL0018A	4.	*UGA0051A	11.	*S 0138A	12
																*		*		*	
39	UGA0051A	2.0	2	32.1	1.4	1.5	0.9	65.	42.7	2	116.	63.4	34.0	4.3	2.	*ETH0092A	4.	*TCD0143A	13.	*DDR0216A	13.
																*		*		*	
40	ETH0092A	14.0	2	40.0	10.0	2.5	1.5	108.	38.4	1	310.	63.3	39.0	3.3	3.	*UGA0051A	3.	*SOM0312A	16.	*MDG0236A	20.
																*		*		*	
41	KWT0113A	20.0	2	47.4	29.2	0.6	0.6	0.	48.7	2	30.	63.5	48.2	28.3	-2.	*IRN0109A	-1.	*BHR0255A	11.	*ETH0092A	16.
																*		*		*	
42	MDG0236A	26.0	2	46.3	-18.5	2.7	1.1	64.	39.6	1	235.	63.3	49.0	-12.3	10.	*MYT0098A	14.	*COM0207A	16.	*ETH0092A	21.
																*		*		*	
43	IRN0109A	32.0	2	54.3	33.0	3.5	1.6	150.	36.8	2	472.	63.5	46.1	33.1	5.	*KWT0113A	6.	*ALG0251A	18.	*ISR0110A	24.
																*		*		*	
44	AFG0245A	50.0	2	70.4	35.1	1.0	0.9	27.	44.7	2	76.	63.5	69.3	32.0	2.	*IRN0109A	4.	*IND0042A	10.	*IND0041A	13.
																*		*		*	
45	IND0041A	56.0	2	77.3	15.4	1.8	1.1	41.	41.3	2	159.	63.3	84.9	19.0	1.	*IND0042A	4.	*IND0046A	10.	*AFG0245A	11
																*		*		*	
46	CHN0156A	62.0	2	98.3	36.2	2.2	1.5	150.	39.0	1	294.	63.7	105.2	32.6	1.	*THA0142A	4.	*CHN0157A	8.	*CHN0155A	10
																*		*		*	
47	IND0042A	68.0	2	79.0	27.1	1.7	0.8	143.	42.9	2	110.	63.3	84.6	25.8	-3.	*THA0142A	2.	*CHN0155A	5.	*IND0041A	5
																*		*		*	
48	THA0142A	68.0	2	100.8	13.1	2.5	1.2	104.	39.6	1	245.	63.4	105.4	14.3	-5.	*LAO0284A	-3.	*CBG0299A	5.	*IND0042A	6
																*		*		*	
49	INS0029A	74.0	2	104.0	-2.4	1.4	1.3	83.	41.8	1	143.	63.4	104.3	1.0	-5.	*THA0142A	-4.	*SNG0151A	8.	*CBG0299A	9
																*		*		*	

Canal **2** suite - Channel **2** cont. - Canal **2** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
50	LAO0284A	74.0	2	103.5	18.0	1.8	0.6	130.	43.9	2	89.	63.4	105.5	14.0	-4.	*THA0142A -2. *	*INS0029A 5. *	*CBG0299A 7. *
51	INS0033A	86.0	2	122.1	-1.4	1.8	0.9	77.	42.0	1	140.	63.5	122.8	-5.7	7.	*INS0034A 9. *	*INS0032A 16. *	*CHN0161A 20. *
52	CHN0161A	92.0	2	118.1	31.2	2.0	1.5	96.	39.5	2	254.	63.5	115.4	36.0	3.	*CHN0156A 5. *	*CHN0160A 11. *	*CHN0163A 15 *
53	AUS0006A	104.0	2	135.2	-30.1	1.8	1.4	45.	40.2	2	216.	63.6	141.0	-32.1	6.	*AUS0014A 8. *	*AUS0004B 16. *	*AUS0004A 16 *
54	AUS0014A	134.0	2	145.1	-21.4	2.3	1.5	85.	38.9	2	276.	63.3	153.4	-28.0	5.	*AUS0006A 8. *	*NRU0309A 11. *	*NCL0100A 14 *
55	NCL0100A	140.0	2	166.0	-21.0	1.1	0.7	146.	45.1	1	68.	63.4	167.5	-23.0	17.	*AUS0014A 21. *	*FJI0193A 22. *	*AUS0006A 26 *
56	FJI0193A	152.0	2	179.3	-17.4	0.8	0.8	133.	46.5	2	49.	63.4	-179.1	-16.1	13.	*WAL0102A 15. *	*NCL0100A 21. *	*AUS0014A 24 *

Canal **3** - Channel **3** - Canal **3**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
28	CPV0301A	-34.0	3	-24.0	15.4	0.6	0.6	0.	48.7	1	28.	63.2	-25.1	17.0	10.	*CAF0258A 14. *	*IRL0211A 16. *	*MLI0269A 18 *
29	IRL0211A	-28.0	3	-7.5	53.2	0.8	0.6	62.	47.3	1	45.	63.9	-10.3	54.3	1.	*MLI0269A 3. *	*CTI0237A 9. *	*GHA0108A 11 *
30	MLI0269A	-28.0	3	-2.1	19.2	2.6	1.2	146.	39.3	2	257.	63.4	-12.0	13.8	-17.	*CAF0258A-11. *	*GNP0304A-11. *	*GMB0302A-10 *
31	D 0087A	-16.0	3	9.3	50.3	1.4	0.7	149.	44.4	1	88.	63.8	13.5	52.4	-1.	*SDN0232A 6. *	*TCH0144A 6. *	*FNL0103A 8 *
32	SDN0232A	-16.0	3	30.0	18.4	1.7	1.4	134.	40.4	2	213.	63.7	36.8	16.0	-1.	*MOZ0307A 0. *	*D 0087A 8. *	*ZAI0323A 14 *
33	CAF0258A	-10.0	3	-20.2	6.2	2.6	1.5	14.	38.2	1	313.	63.2	23.2	11.0	-24.	*MOZ0307A-21. *	*SDN0232A-18. *	*TCD0143A-14 *
34	ROU0136A	-10.0	3	24.3	45.2	1.3	0.8	171.	44.1	2	95.	63.8	28.5	43.7	-4.	*TCD0143A 0. *	*UKR0063A 2. *	*CAF0258A 5 *
35	MLT0147A	-4.0	3	14.2	35.5	0.6	0.6	0.	48.7	1	31.	63.5	14.4	35.9	10.	*CAF0258A 16. *	*MOZ0307A 17. *	*ROU0136A 17 *
36	FNL0103A	2.0	3	23.3	63.3	1.4	0.8	165.	43.8	2	108.	64.1	19.2	60.0	3.	*MOZ0307A 7. *	*D 0087A 9. *	*UKR0063A 10 *
37	MOZ0307A	2.0	3	34.3	17.3	3.2	1.2	58.	38.3	1	329.	63.5	35.0	-11.8	-18.	*MWI0308A-16. *	*FNL0103A-12. *	*UGA0051A -5 *
38	LBN0279A	8.0	3	36.0	34.0	0.6	0.6	0.	48.7	1	31.	63.6	35.4	33.7	7.	*TUR0145A 11. *	*MOZ0307A 15. *	*MWI0308A 17 *
39	UKR0063A	14.0	3	31.1	48.3	2.1	0.8	171.	42.0	2	150.	63.8	28.1	45.6	-0.	*ROU0136A 1. *	*TUR0145A 10. *	*URS0060A 14 *
40	UAE0274A	20.0	3	53.3	24.0	0.8	0.7	168.	46.9	1	46.	63.5	50.8	24.6	2.	*MOZ0307A 5. *	*SDN0232A 9. *	*ARS0003A 11 *
41	MYT0098A	26.0	3	45.0	-12.5	0.6	0.6	0.	48.7	2	29.	63.3	45.0	-12.8	10.	*MDG0236A 11. *	*REU0097A 18. *	*ZAI0323A 24 *
42	PAK0281A	38.0	3	65.0	28.1	1.3	1.2	76.	42.3	1	134.	63.5	69.5	32.2	3.	*CHN0155A 7. *	*MOZ0307A 11. *	*IND0044A 12 *
43	IND0043A	56.0	3	77.4	10.5	1.4	1.0	40.	42.8	1	112.	63.3	80.3	13.5	4.	*IND0044A 8. *	*IND0041A 8. *	*IND0045A 15 *
44	CHN0155A	62.0	3	88.3	31.4	3.2	1.2	164.	38.4	2	329.	63.5	86.0	28.0	2.	*IND0044A 3. *	*IND0042A 14. *	*CHN0156A 14 *

Canal **3** suite - Channel **3** cont. - Canal **3** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
45	IND0044A	68.0	3	80.0	23.2	2.0	1.3	150.	40.1	1	210.	63.3	78.2	26.9	1.	*CHN0155A 4.	*IND0042A 8.	*THA0142A 9
46	CHN0163A	80.0	3	116.1	39.5	0.9	0.6	120.	46.5	1	53.	63.8	115.4	36.1	4.	*CHN0162A 10.	*MLA0227A 11.	*CHN0155A 11
47	MLA0227A	80.0	3	102.1	4.0	1.4	0.6	115.	45.0	2	67.	63.3	98.8	6.2	2.	*CHN0163A 8.	*INS0032A 8.	*CHN0162A 11
48	INS0032A	86.0	3	115.5	-0.2	1.7	0.9	78.	42.4	2	125.	63.4	119.0	1.0	-1.	*PHL0285A 1.	*INS0033A 7.	*MLA0227A 12
49	CHN0162A	92.0	3	115.2	21.3	2.7	1.7	45.	37.7	1	375.	63.4	119.0	19.3	-8.	*PHL0285A -8.	*CHN0161B 14.	*CHN0161A 14
50	PHL0285A	98.0	3	122.0	11.1	2.9	1.6	102.	37.5	1	378.	63.3	122.0	21.0	-11.	*CHN0162A-11.	*AUS0004B 12.	*CHN0155A 20
51	AUS0004B	104.0	3	121.4	-24.5	3.4	1.9	56.	36.1	1	528.	63.4	126.6	-31.0	5.	*AUS0006B 9.	*AUS0006A 10.	*PHL0285A 12
52	PNG0131A	110.0	3	147.3	-6.3	2.3	2.0	139.	37.5	2	395.	63.5	141.0	-2.6	15.	*AUS0004B 19.	*PHL0285A 22.	*CHN0162A 25
53	NRU0309A	134.0	3	166.3	-0.1	0.6	0.6	0.	48.7	2	30.	63.4	162.0	-3.0	-19.	*PNG0131A-15.	*AUS0014B-14.	*AUS0014A-13
54	WAL0102A	140.0	3	-177.2	-13.2	0.8	0.6	66.	47.5	2	41.	63.6	-176.6	-13.3	10.	*TON0215A 12.	*PNG0131A 18.	*NRU0309A 19
55	CKH0052A	152.0	3	-160.1	-19.3	0.9	0.6	155.	46.9	1	48.	63.8	-160.0	-21.3	17.	*WAL0102A 20.	*TON0215A 23.	*FJI0193A 26
56	TON0215A	170.0	3	-175.0	-19.0	1.4	0.6	70.	45.1	2	65.	63.3	-175.6	-15.6	-0.	*WAL0102A -0.	*PNG0131A 14.	*SMO0057A 21

Canal **4** - Channel **4** - Canal **4**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
30	GMB0302A	-34.0	4	-15.1	13.2	0.6	0.6	0.	48.7	2	29.	63.3	-14.2	13.3	7.	*MLI0118B	10.	*ALG0252A	15.	*CTI0237A	15
31	AND0262A	-28.0	4	1.3	42.3	0.6	0.6	0.	48.7	2	32.	63.8	1.7	42.7	4.	*CTI0237A	10.	*ALG0252A	11.	*MLI0269A	12
32	CTI0237A	-28.0	4	-5.3	7.3	1.6	1.2	102.	41.3	1	157.	63.3	-3.5	9.8	2.	*ALG0252A	5.	*MLI0118B	10.	*G 0027B	14
33	ALG0252A	-22.0	4	1.5	25.9	3.5	2.1	162.	35.7	1	601.	63.4	9.5	30.0	5.	*LBY0280B	7.	*ZAI0323A	13.	*CTI0237A	13
34	HOL0213A	-16.0	4	5.0	51.3	0.7	0.6	165.	48.0	2	38.	63.9	6.6	53.7	-1.	*ZAI0323A	1.	*TCH0144A	8.	*D 0087A	8
35	ZAI0323A	-16.0	4	23.0	-3.3	3.5	3.5	0.	33.4	1	1041.	63.5	12.5	-5.9	1.	*GAB0260A	2.	*COG0235B	8.	*ALG0252A	14
36	GAB0260A	-10.0	4	11.5	-0.4	1.4	1.1	80.	42.3	2	125.	63.3	14.0	2.0	-3.	*ZAI0323A	-2.	*COG0235B	7.	*TCH0144A	11
37	TCH0144A	-10.0	4	17.1	49.1	1.3	0.6	167.	45.3	1	71.	63.9	12.1	50.3	-1.	*D 0087A	4.	*SUI0140B	6.	*HOL0213A	6
38	ISL0050A	2.0	4	-19.3	61.0	2.0	0.6	4.	43.5	1	115.	64.1	-6.2	62.3	8.	*S 0138B	15.	*MOZ0307A	15.	*FNL0103A	16
39	MWI0308A	8.0	4	33.5	-13.0	1.4	0.6	89.	45.0	1	69.	63.4	32.8	-9.3	-0.	*ZAI0323A	1.	*TUR0145A	7.	*SOM0312B	16
40	TUR0145A	8.0	4	34.1	38.5	2.4	0.9	165.	40.7	2	199.	63.7	42.7	41.5	-0.	*MWI0308A	6.	*SOM0312B	6.	*URS0060A	7
41	URS0060A	14.0	4	44.0	61.1	2.3	1.3	156.	39.5	1	289.	64.1	43.6	47.5	0.	*TUR0145A	3.	*UKR0063A	6.	*ARS0003A	13
42	ARS0003A	20.0	4	42.0	23.0	3.1	1.3	132.	38.2	2	332.	63.4	55.5	24.0	-8.	*UAE0274A	-6.	*BHR0255B	2.	*AFG0246A	5
43	REU0097A	26.0	4	55.1	-19.3	1.3	0.8	110.	44.1	1	87.	63.5	54.7	-15.7	6.	*ZAI0323A	7.	*ARS0003A	19.	*ALG0252A	24
44	MLD0306A	44.0	4	72.3	4.0	2.3	0.6	96.	42.9	2	111.	63.4	72.5	7.0	12.	*AFG0246A	16.	*IND0043A	20.	*IND0039B	21
45	AFG0246A	50.0	4	64.1	33.2	1.3	1.2	64.	42.3	2	131.	63.5	65.7	37.6	3.	*CHN0154A	6.	*MLD0306A	13.	*IND0045A	13
46	CLN0219A	50.0	4	80.3	7.4	0.6	0.6	0.	48.7	1	30.	63.4	80.0	10.0	-4.	*IND0043A	-1.	*AFG0246A	2.	*NPL0122B	4
47	IND0045A	56.0	4	76.3	19.4	1.6	1.0	43.	42.2	2	130.	63.4	74.0	15.7	3.	*MLD0306A	5.	*IND0039B	12.	*AFG0246A	13
48	CHN0154A	62.0	4	84.2	40.1	2.5	1.6	3.	38.3	1	346.	63.7	73.6	39.0	4.	*AFG0246A	6.	*CHN0155A	12.	*TUR0145A	20
49	IND0037A	68.0	4	93.0	26.0	1.4	0.9	40.	43.2	2	106.	63.5	96.0	29.5	2.	*CHN0155A	5.	*CHN0157B	6.	*CHN0154A	12
50	INS0028A	74.0	4	99.0	1.2	1.9	0.8	130.	42.4	1	123.	63.3	102.2	1.8	1.	*SNG0151B	5.	*CBG0299B	6.	*MLA0227A	12
51	INS0030A	86.0	4	110.3	-7.5	1.3	0.7	163.	44.8	1	71.	63.3	105.8	-7.5	2.	*INS0028A	3.	*INS0034B	13.	*INS0032A	13
52	CHN0161B	92.0	4	118.1	31.2	2.0	1.5	96.	39.5	2	256.	63.6	116.0	25.0	7.	*CHN0162A	8.	*CHN0160B	16.	*J 0111B	23
53	AUS0006B	104.0	4	135.2	-30.1	1.8	1.4	45.	40.2	2	217.	63.6	141.0	-32.1	7.	*AUS0014B	8.	*AUS0004B	16.	*CHN0161B	26
54	AUS0014B	134.0	4	145.1	-21.4	2.3	1.5	85.	38.9	2	278.	63.3	153.4	-28.0	6.	*AUS0006B	8.	*NRU0309A	12.	*NHB0128A	17
55	NHB0128A	140.0	4	168.0	-16.5	1.0	0.6	95.	46.3	1	51.	63.4	166.9	-15.0	18.	*AUS0014B	22.	*AUS0006B	26.	*PNG0131A	27
56	SMO0057A	158.0	4	-172.0	-13.4	0.6	0.6	0.	48.7	2	30.	63.4	-172.5	-13.6	17.	*TON0215A	21.	*NZL0055A	23.	*WAL0102A	23

Canal 5 - Channel 5 - Canal 5

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
28	OCE0101B	-160.0	5	-144.3	-16.0	3.8	3.3	176.	33.2	1	1012.	63.3	-153.0	-23.0	22.	*NZL0055A 24. *	*AUS0010A 27. *	*FJI0193B 42 *
29	CVA0083B	-34.0	5	12.2	41.5	0.6	0.6	0.	48.7	2	34.	64.0	15.0	44.0	-2.	*HNG0106B 1. *	*NIG0119B 6. *	*SUI0140B 7 *
30	NIG0119B	-34.0	5	7.1	9.3	1.8	1.3	85.	40.7	1	195.	63.6	5.5	14.0	3.	*MLI0118B 5. *	*CVA0083B 14. *	*G 0027B 15 *
31	G 0027B	-28.0	5	-3.3	53.5	1.6	0.8	149.	42.9	1	127.	63.9	1.3	51.1	2.	*SUI0140B 7. *	*MLI0118B 9. *	*CTI0237A 12 *
32	MLI0118B	-28.0	5	-6.5	13.2	1.9	1.1	170.	41.0	2	171.	63.3	-2.5	23.3	-20.	*LBY0280B-16. *	*G 0027B-14. *	*AND0262A-11 *
33	LBY0280B	-22.0	5	15.3	29.3	1.8	1.7	127.	39.3	2	277.	63.7	25.0	20.0	-7.	*MLI0118B -0. *	*NIG0119B 0. *	*ALG0252A 0 *
34	SUI0140B	-16.0	5	8.1	46.4	1.0	0.8	171.	45.5	1	67.	63.8	8.5	47.8	3.	*G 0027B 7. *	*TCH0144A 11. *	*ZAI0323A 11 *
35	COG0235B	-10.0	5	14.4	-0.4	1.9	1.0	67.	41.5	1	153.	63.3	18.5	4.3	1.	*ZAI0323A 5. *	*TCD0143B 7. *	*NIG0119B 10 *
36	HNG0106B	-10.0	5	19.3	47.0	0.8	0.6	152.	47.4	2	44.	63.8	17.3	48.1	-1.	*SUI0140B 3. *	*S 0138B 7. *	*TCH0144A 8 *
37	RHS0135B	2.0	5	29.0	-18.3	1.3	0.8	87.	43.8	1	91.	63.4	32.8	-20.5	4.	*S 0138B 7. *	*MWI0308A 11. *	*SOM0312B 15 *
38	S 0138B	2.0	5	16.0	61.0	1.1	0.9	144.	44.2	2	96.	64.0	13.3	55.3	2.	*DDR0216B 8. *	*G 0027B 8. *	*SUI0140B 9 *
39	SOM0312B	8.0	5	44.4	6.3	3.4	1.1	81.	38.6	2	309.	63.5	43.2	11.2	6.	*TUR0145A 10. *	*SYR0229B 13. *	*ETH0092B 14 *
40	SYR0229B	8.0	5	38.0	34.5	1.0	0.6	19.	46.6	1	51.	63.7	35.9	35.7	-0.	*SOM0312B 4. *	*LBY0280B 6. *	*TUR0145A 6 *
41	BHR0255B	20.0	5	50.3	26.1	0.6	0.6	0.	48.7	1	31.	63.6	52.3	17.0	-22.	*SOM0312B-21. *	*ARS0003A-11. *	*PAK0127B -4 *
42	COM0207B	26.0	5	44.0	-12.0	0.6	0.6	0.	48.7	2	29.	63.3	43.1	-11.4	7.	*SOM0312B 10. *	*MDG0236B 13. *	*REU0097A 20 *
43	PAK0127B	38.0	5	69.4	29.5	2.2	1.9	14.	38.1	1	356.	63.6	70.0	34.0	10.	*AFG0245B 14. *	*AFG0246A 18. *	*SOM0312B 18 *
44	NPL0122B	50.0	5	84.0	28.0	1.2	0.6	154.	45.8	1	61.	63.6	80.2	28.8	-2.	*PAK0127B -1. *	*IND0039B 13. *	*CLN0219A 15 *
45	IND0039B	56.0	5	72.4	11.1	0.9	0.8	105.	45.7	1	58.	63.3	73.0	8.3	5.	*IND0041B 10. *	*MLD0306A 13. *	*IND0045A 14 *
46	CHN0157B	62.0	5	102.3	28.1	2.4	1.3	120.	39.3	2	276.	63.7	97.5	33.0	3.	*CHN0156B 7. *	*IND0037A 11. *	*PAK0127B 11 *
47	IND0046B	68.0	5	84.0	20.0	1.3	0.8	43.	44.1	1	84.	63.3	87.5	21.7	3.	*THA0142B 8. *	*IND0037A 10. *	*IND0042B 13 *
48	CBG0299B	74.0	5	104.4	12.3	0.8	0.7	42.	46.7	1	47.	63.4	104.0	14.1	-1.	*THA0142B 4. *	*CHN0157B 6. *	*INS0029B 7 *
49	SNG0151B	74.0	5	103.4	1.2	0.6	0.6	0.	48.7	2	30.	63.4	104.0	0.5	-2.	*MLA0228B -1. *	*INS0029B 8. *	*LAO0284B 9 *
50	MLA0228B	80.0	5	114.3	3.4	2.0	0.9	45.	41.7	2	151.	63.5	110.2	6.0	1.	*INS0034B 6. *	*SNG0151B 6. *	*CBG0299B 14 *
51	INS0034B	86.0	5	121.4	-8.5	1.5	0.9	3.	43.2	2	107.	63.5	125.0	-9.5	6.	*AUS0010A 8. *	*INS0033B 14. *	*MLA0228B 14 *
52	CHN0160B	92.0	5	123.3	46.0	2.0	1.4	145.	39.7	1	260.	63.9	122.5	38.3	1.	*J 0111B 4. *	*CHN0161C 8. *	*CHN0161B 8 *
53	J 0111B	110.0	5	134.4	31.5	3.4	2.9	46.	34.3	2	841.	63.6	141.9	45.5	6.	*CHN0160B 6. *	*KOR0112A 20. *	*OCE0101B 25 *
54	AUS0010A	128.0	5	121.4	-24.5	3.4	1.9	56.	36.1	1	524.	63.3	126.6	-31.0	7.	*AUS0012A 9. *	*AUS0006B 18. *	*J 0111B 21 *
55	NZL0055A	158.0	5	173.0	-40.0	2.4	0.9	0.	40.9	1	187.	63.6	166.3	-45.5	0.	*OCE0101B 24. *	*AUS0010A 25. *	*J 0111B 26 *

Canal **6** - Channel **6** - Canal **6**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
29	GNP0304B	-34.0	6	-14.2	12.0	0.6	0.6	0.	48.7	2	29.	63.3	-16.3	11.8	7.	*MLI0118B 10. *	*CVA0083B 14. *	*CAF0258B 17 *
30	GHA0108B	-28.0	6	-1.3	7.5	1.5	1.0	101.	42.7	1	118.	63.4	-2.9	11.0	4.	*MLI0118B 8. *	*ALG0251B 13. *	*MLI0269B 13 *
31	ALG0251B	-22.0	6	0.6	31.5	3.2	1.5	6.	37.3	1	420.	63.6	9.0	35.5	8.	*LBY0280B 12. *	*GHA0108B 14. *	*TCD0143B 15 *
32	BEL0018B	-16.0	6	4.3	50.3	0.7	0.6	160.	48.0	2	38.	63.9	6.4	50.3	1.	*DDR0216B 6. *	*D 0087B 8. *	*SDN0232B 10 *
33	GNE0303B	-16.0	6	10.3	1.4	0.6	0.6	0.	48.7	1	29.	63.4	11.3	2.4	2.	*TCD0143B 5. *	*COG0235B 8. *	*ALG0251B 13 *
34	BUL0020B	-10.0	6	24.5	42.5	0.9	0.6	163.	46.9	1	49.	63.8	22.6	44.3	-3.	*TCD0143B -1. *	*ALG0251B 4. *	*ROU0136B 6 *
35	TCD0143B	-10.0	6	18.0	15.0	3.4	1.7	101.	36.7	2	474.	63.4	23.8	19.3	2.	*SDN0232B 5. *	*ROU0136B 10. *	*BUL0020B 12 *
36	ISR0110B	-4.0	6	34.4	31.3	0.6	0.6	0.	48.7	2	32.	63.7	34.8	29.5	-1.	*TCD0143B -0. *	*UGA0051B 12. *	*IRN0109B 14 *
37	DDR0216B	2.0	6	12.2	52.0	0.9	0.6	154.	46.9	1	49.	63.8	9.9	51.4	2.	*BEL0018B 4. *	*UGA0051B 11. *	*S 0138B 12 *
38	UGA0051B	2.0	6	32.1	1.4	1.5	0.9	65.	42.7	2	118.	63.4	34.0	4.3	2.	*ETH0092B 4. *	*TCD0143B 13. *	*DDR0216B 13 *
39	ETH0092B	14.0	6	40.0	10.0	2.5	1.5	108.	38.4	1	314.	63.4	39.0	3.3	3.	*UGA0051B 3. *	*SOM0312B 16. *	*MDG0236B 20 *
40	KWT0113B	20.0	6	47.4	29.2	0.6	0.6	0.	48.7	2	31.	63.6	48.2	28.3	-2.	*IRN0109B -1. *	*BHR0255B 11. *	*ETH0092B 16 *
41	MDG0236B	26.0	6	46.3	-18.5	2.7	1.1	64.	39.6	1	238.	63.4	49.0	-12.3	10.	*MYT0098B 14. *	*COM0207B 16. *	*ETH0092B 21 *
42	IRN0109B	32.0	6	54.3	33.0	3.5	1.6	150.	36.8	2	479.	63.6	46.1	33.1	5.	*KWT0113B 6. *	*ALG0251B 18. *	*ISR0110B 24 *
43	AFG0245B	50.0	6	70.4	35.1	1.0	0.9	27.	44.7	2	77.	63.6	69.3	32.0	2.	*IRN0109B 4. *	*IND0042B 10. *	*IND0041B 13 *
44	IND0041B	56.0	6	77.3	15.4	1.8	1.1	41.	41.3	2	161.	63.4	84.9	19.0	1.	*IND0042B 4. *	*IND0046B 10. *	*AFG0245B 11 *
45	CHN0156B	62.0	6	98.3	36.2	2.2	1.5	150.	39.0	1	298.	63.8	105.2	32.6	1.	*THA0142B 4. *	*CHN0157B 8. *	*CHN0155B 10 *
46	IND0042B	68.0	6	79.0	27.1	1.7	0.8	143.	42.9	2	112.	63.4	84.6	25.8	-3.	*THA0142B 2. *	*CHN0155B 5. *	*IND0044B 5 *
47	THA0142B	68.0	6	100.8	13.1	2.5	1.2	104.	39.6	1	248.	63.5	105.4	14.3	-5.	*LAO0284B -3. *	*CBG0299B 5. *	*IND0042B 6 *
48	INS0029B	74.0	6	104.0	-2.4	1.4	1.3	83.	41.8	1	145.	63.4	104.3	1.0	-5.	*THA0142B -4. *	*SNG0151B 8. *	*CBG0299B 9 *
49	LAO0284B	74.0	6	103.5	18.0	1.8	0.6	130.	43.9	2	91.	63.5	105.5	14.0	-4.	*THA0142B -2. *	*INS0029B 5. *	*CBG0299B 7 *
50	INS0033B	86.0	6	122.1	-1.4	1.8	0.9	77.	42.0	1	142.	63.5	122.8	-5.7	7.	*INS0034B 9. *	*INS0032B 16. *	*CHN0161C 20 *
51	CHN0161C	92.0	6	118.1	31.2	2.0	1.5	96.	39.5	2	258.	63.6	123.8	30.2	-1.	*KOR0112A 0. *	*CHN0162B 9. *	*CHN0160B 15 *
52	KOR0112A	104.0	6	128.1	35.4	1.3	0.9	8.	43.6	2	101.	63.6	126.5	37.3	-2.	*CHN0161C -1. *	*J 0111B 8. *	*CHN0156B 11 *
53	AUS0012A	128.0	6	135.2	-30.1	1.8	1.4	45.	40.2	2	209.	63.4	129.5	-30.7	8.	*AUS0010B 11. *	*AUS0010A 11. *	*INS0033B 24 *
54	NCL0100B	140.0	6	166.0	-21.0	1.1	0.7	146.	45.1	1	69.	63.5	167.5	-23.0	18.	*FJI0193B 22. *	*AUS0012A 23. *	*WAL0102B 29 *
55	FJI0193B	152.0	6	179.3	-17.4	0.8	0.8	133.	46.5	2	49.	63.5	-179.1	-16.1	13.	*WAL0102B 15. *	*NCL0100B 21. *	*CKH0052B 25 *

Canal 7 - Channel 7 - Canal 7

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
28	CPV0301B	-34.0	7	-24.0	15.4	0.6	0.6	0.	48.7	1	29.	63.3	-25.1	17.0	10.	*CAF0258B	14.	*IRL0211B	16.	*MLI0269B	18.
29	IRL0211B	-28.0	7	-7.5	53.2	0.8	0.6	62.	47.3	1	46.	63.9	-10.3	54.3	1.	*MLI0269B	3.	*CTI0237B	9.	*GHA0108B	11.
30	MLI0269B	-28.0	7	-2.1	19.2	2.6	1.2	146.	39.3	2	261.	63.5	-12.0	13.8	-17.	*CAF0258B	-11.	*GNP0304B	-11.	*GMB0302B	-10
31	D 0087B	-16.0	7	9.3	50.3	1.4	0.7	149.	44.4	1	89.	63.9	13.5	52.4	-0.	*SDN0232B	6.	*TCH0144B	6.	*FNL0103B	8.
32	SDN0232B	-16.0	7	30.0	18.4	1.7	1.4	134.	40.4	2	215.	63.8	36.8	16.0	-1.	*MOZ0307B	0.	*D 0087B	8.	*ZAI0323B	14.
33	CAF0258B	-10.0	7	-20.2	6.2	2.6	1.5	14.	38.2	1	317.	63.2	23.2	11.0	-24.	*MOZ0307B	-21.	*SDN0232B	-18.	*TCD0143B	-14
34	ROU0136B	-10.0	7	24.3	45.2	1.3	0.8	171.	44.1	2	96.	63.9	28.5	43.7	-2.	*TCD0143B	0.	*CAF0258B	5.	*BUL0020B	8
35	MLT0147B	-4.0	7	14.2	35.5	0.6	0.6	0.	48.7	1	31.	63.6	14.4	35.9	10.	*CAF0258B	16.	*MOZ0307B	17.	*ROU0136B	17
36	FNL0103B	2.0	7	23.3	63.3	1.4	0.8	165.	43.8	2	109.	64.1	20.7	69.1	4.	*MOZ0307B	6.	*IRL0211B	12.	*D 0087B	15
37	MOZ0307B	2.0	7	34.3	17.3	3.2	1.2	58.	38.3	1	333.	63.5	35.0	-11.8	-18.	*MWI0308B	-16.	*FNL0103B	-12.	*UGA0051B	-5
38	LBN0279B	8.0	7	36.0	34.0	0.6	0.6	0.	48.7	1	31.	63.7	35.4	33.7	7.	*TUR0145B	11.	*MOZ0307B	15.	*MWI0308B	17
39	UAE0274B	20.0	7	53.3	24.0	0.8	0.7	168.	46.9	1	47.	63.6	50.8	24.6	2.	*MOZ0307B	5.	*SDN0232B	9.	*ARS0003B	11
40	MYT0098B	26.0	7	45.0	-12.5	0.6	0.6	0.	48.7	2	29.	63.3	45.0	-12.8	10.	*MDG0236B	11.	*REU0097B	18.	*ZAI0323B	24
41	PAK0281B	38.0	7	65.0	28.1	1.3	1.2	76.	42.3	1	135.	63.6	69.5	32.2	3.	*CHN0155B	7.	*MOZ0307B	11.	*IND0044B	12
42	IND0043B	56.0	7	77.4	10.5	1.4	1.0	40.	42.8	1	114.	63.3	80.3	13.5	4.	*IND0044B	8.	*IND0041B	8.	*IND0045B	15
43	CHN0155B	62.0	7	88.3	31.4	3.2	1.2	164.	38.4	2	334.	63.6	86.0	28.0	2.	*IND0044B	3.	*CHN0156B	14.	*IND0042B	14
44	IND0044B	68.0	7	80.0	23.2	2.0	1.3	150.	40.1	1	213.	63.4	78.2	26.9	1.	*CHN0155B	4.	*IND0042B	8.	*THA0142B	9
45	CHN0164A	80.0	7	112.1	37.3	0.8	0.6	91.	47.7	1	41.	63.8	113.6	35.6	3.	*CHN0155B	8.	*MLA0227B	9.	*CHN0162B	9
46	MLA0227B	80.0	7	102.1	4.0	1.4	0.6	115.	45.0	2	68.	63.3	98.8	6.2	2.	*CHN0164A	8.	*INS0032B	8.	*CHN0162B	11
47	INS0032B	86.0	7	115.5	-0.2	1.7	0.9	78.	42.4	2	127.	63.4	119.0	1.0	-1.	*PHL0285B	1.	*INS0033B	7.	*MLA0227B	12
48	CHN0162B	92.0	7	115.2	21.3	2.7	1.7	45.	37.7	1	380.	63.5	119.0	19.3	-8.	*PHL0285B	-8.	*CHN0161C	14.	*INS0032B	21
49	PHL0285B	98.0	7	122.0	11.1	2.9	1.6	102.	37.5	1	383.	63.4	122.0	21.0	-11.	*CHN0162B	-11.	*CHN0155B	20.	*PNG0131B	20
50	PNG0131B	110.0	7	147.3	-6.3	2.3	2.0	139.	37.5	2	400.	63.6	141.0	-2.6	17.	*PHL0285B	22.	*AUS0010B	25.	*CHN0162B	25
51	AUS0010B	128.0	7	121.4	-24.5	3.4	1.9	56.	36.1	1	527.	63.4	126.6	-31.0	5.	*AUS0012B	9.	*AUS0012A	9.	*PNG0131B	22
52	NRU0309B	134.0	7	166.3	-0.1	0.6	0.6	0.	48.7	1	30.	63.5	162.0	-3.0	-16.	*PNG0131B	-15.	*AUS0010B	-9.	*PHL0285B	4
53	WAL0102B	140.0	7	-177.2	-13.2	0.8	0.6	66.	47.5	2	42.	63.7	-176.6	-13.3	10.	*TON0215B	12.	*PNG0131B	18.	*CKH0052B	24
54	CKH0052B	152.0	7	-160.1	-19.3	0.9	0.6	155.	46.9	1	49.	63.8	-160.0	-21.3	17.	*WAL0102B	20.	*TON0215B	23.	*AUS0010B	25
55	TON0215B	170.0	7	-175.0	-19.0	1.4	0.6	70.	45.1	2	66.	63.4	-175.6	-15.6	-0.	*WAL0102B	-0.	*PNG0131B	14.	*SMO0057B	21

Canal **8** - Channel **8** - Canal **8**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
29	GMB0302B	-34.0	8	-15.1	13.2	0.6	0.6	0.	48.7	2	29.	63.4	-14.2	13.3	7.	*MLI0118C	10.	*ALG0252B	15.	*CTI0237B	15
30	AND0262B	-28.0	8	1.3	42.3	0.6	0.6	0.	48.7	2	33.	63.8	1.7	42.7	4.	*CTI0237B	10.	*ALG0252B	11.	*MLI0269B	12
31	CTI0237B	-28.0	8	-5.3	7.3	1.6	1.2	102.	41.3	1	159.	63.4	-3.5	9.8	2.	*ALG0252B	5.	*MLI0118C	10.	*G 0027C	14
32	ALG0252B	-22.0	8	1.5	25.0	3.5	2.1	162.	35.7	1	609.	63.5	9.5	30.0	5.	*LBY0280C	7.	*ZAI0323B	13.	*CTI0237B	13
33	HOL0213B	-16.0	8	5.0	51.3	0.7	0.6	165.	48.0	2	39.	63.9	6.6	53.7	-1.	*ZAI0323B	1.	*TCH0144B	8.	*D 0087B	8
34	ZAI0323B	-16.0	8	23.0	-3.3	3.5	3.5	0.	33.4	1	1055.	63.6	12.5	-5.9	1.	*GAB0260B	2.	*COG0235C	8.	*ALG0252B	14
35	GAB0260B	-10.0	8	11.5	-0.4	1.4	1.1	80.	42.3	2	127.	63.3	14.0	2.0	-3.	*ZAI0323B	-2.	*COG0235C	7.	*TCH0144B	11
36	TCH0144B	-10.0	8	17.1	49.1	1.3	0.6	167.	45.3	1	72.	63.9	12.1	50.3	-1.	*D 0087B	5.	*SUI0140C	6.	*HOL0213B	6
37	ISL0050B	2.0	8	-19.3	61.0	2.0	0.6	4.	43.5	1	116.	64.1	-6.2	62.3	8.	*S 0138C	15.	*MOZ0307B	15.	*FNL0103B	16
38	MWI0308B	8.0	8	33.5	-13.0	1.4	0.6	89.	45.0	1	70.	63.4	32.8	-9.3	-0.	*ZAI0323B	1.	*TUR0145B	7.	*SOM0312C	16
39	TUR0145B	8.0	8	34.1	38.5	2.4	0.9	165.	40.7	2	201.	63.7	42.7	41.5	0.	*MWI0308B	6.	*SOM0312C	6.	*URS0060B	7
40	URS0060B	14.0	8	44.0	61.1	2.3	1.3	156.	39.5	1	293.	64.2	43.6	47.5	2.	*TUR0145B	3.	*ARS0003B	13.	*MWI0308B	17
41	ARS0003B	20.0	8	42.0	23.0	3.1	1.3	132.	38.2	2	337.	63.5	55.5	24.0	-8.	*UAE0274B	-6.	*BHR0255C	2.	*AFG0246B	5
42	REU0097B	26.0	8	55.1	-19.3	1.3	0.8	110.	44.1	1	88.	63.5	54.7	-15.7	6.	*ZAI0323B	7.	*ARS0003B	19.	*ALG0252B	24
43	MLD0306B	44.0	8	72.3	4.0	2.3	0.6	96.	42.9	2	112.	63.4	72.5	7.0	12.	*AFG0246B	16.	*IND0043B	20.	*IND0039C	21
44	AFG0246B	50.0	8	64.1	33.2	1.3	1.2	64.	42.3	2	133.	63.5	65.7	37.6	3.	*CHN0154B	6.	*MLD0306B	13.	*IND0045B	13
45	CLN0219B	50.0	8	80.3	7.4	0.6	0.6	0.	48.7	1	30.	63.5	80.0	10.0	-4.	*IND0043B	-1.	*AFG0246B	2.	*NPL0122C	4
46	IND0045B	56.0	8	76.3	19.4	1.6	1.0	43.	42.2	2	132.	63.4	74.0	15.7	3.	*MLD0306B	5.	*IND0039C	12.	*AFG0246B	13
47	CHN0154B	62.0	8	84.2	40.1	2.5	1.6	3.	38.3	1	351.	63.7	73.6	39.0	4.	*AFG0246B	6.	*CHN0155B	12.	*TUR0145B	20
48	IND0037B	68.0	8	93.0	26.0	1.4	0.9	40.	43.2	2	107.	63.5	96.0	29.5	0.	*CHN0155B	6.	*LAO0284C	6.	*CHN0157C	6
49	INS0028B	74.0	8	99.0	1.2	1.9	0.8	130.	42.4	1	124.	63.4	102.2	1.8	0.	*SNG0151C	5.	*CBG0299C	6.	*LAO0284C	7
50	LAO0284C	74.0	8	103.5	18.0	1.8	0.6	130.	43.9	2	91.	63.5	105.5	14.0	2.	*CBG0299C	7.	*INS0028B	8.	*SNG0151C	9
51	INS0030B	86.0	8	110.3	-7.5	1.3	0.7	163.	44.8	1	72.	63.4	105.8	-7.5	2.	*INS0028B	3.	*INS0034C	13.	*INS0032B	13
52	CHN0169A	92.0	8	118.4	36.4	1.0	0.6	17.	46.6	2	51.	63.7	122.8	38.4	-1.	*KRE0286A	0.	*CHN0160C	8.	*CHN0162B	14
53	KRE0286A	104.0	8	127.3	42.3	1.3	0.6	134.	44.8	2	78.	63.8	126.6	38.0	-1.	*CHN0169A	1.	*J 0111C	6.	*CHN0160C	16
54	AUS0012B	128.0	8	135.2	-30.1	1.8	1.4	45.	40.2	2	210.	63.5	129.5	-30.7	8.	*AUS0010C	11.	*AUS0010B	11.	*INS0028B	24

Canal **8** suite - Channel **8** cont. - Canal **8** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
55	NHB0128B	140.0	8	168.0	-16.5	1.0	0.6	95.	46.3	1	52.	63.5	166.9	-15.0	19.	*AUS0012B 23.	*PNG0131B 27.	*INS0030B 28
56	SMO0057B	158.0	8	-172.0	-13.4	0.6	0.6	0.	48.7	2	30.	63.5	-172.5	-13.6	16.	*TON0215B 21.	*NZL0055B 23.	*WAL0102B 23

Canal **9** - Channel **9** - Canal **9**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
29	OCE0101C	-160.0	9	-144.3	-16.0	3.8	3.3	176.	33.2	1	1026.	63.4	-139.3	-9.0	20.	*CKN0053A 21.	*NZL0055B 26.	*FJI0193C 48
30	CVA0083C	-34.0	9	12.2	41.5	0.6	0.6	0.	48.7	2	34.	64.0	15.0	44.0	-2.	*HNG0106C 1.	*NIG0119C 6.	*SUI0140C 7
31	NIG0119C	-34.0	9	7.1	9.3	1.8	1.3	85.	40.7	1	198.	63.7	5.5	14.0	3.	*MLI0118C 5.	*CVA0083C 14.	*G 0027C 15
32	G 0027C	-28.0	9	-3.3	53.5	1.6	0.8	149.	42.9	1	128.	64.0	1.3	51.1	2.	*SUI0140C 7.	*MLI0118C 9.	*CTI0237B 12
33	MLI0118C	-28.0	9	-6.5	13.2	1.9	1.1	170.	41.0	2	173.	63.4	-2.5	23.3	-20.	*LBY0280C-16.	*G 0027C-14.	*AND0262B-11
34	LBY0280C	-22.0	9	15.3	29.3	1.8	1.7	127.	39.3	2	280.	63.8	25.0	20.0	-7.	*MLI0118C -0.	*NIG0119C 0.	*ALG0252B 0
35	SUI0140C	-16.0	9	8.1	46.4	1.0	0.8	171.	45.5	1	68.	63.9	8.5	47.8	3.	*G 0027C 7.	*TCH0144B 11.	*ZAI0323B 11
36	COG0235C	-10.0	9	14.4	-0.4	1.9	1.0	67.	41.5	1	155.	63.4	18.5	4.3	1.	*ZAI0323B 5.	*TCD0143C 7.	*NIG0119C 10
37	HNG0106C	-10.0	9	19.3	47.0	0.8	0.6	152.	47.4	2	44.	63.9	17.3	48.1	-1.	*SUI0140C 3.	*S 0138C 7.	*TCH0144B 8
38	RHS0135C	2.0	9	29.0	-18.3	1.3	0.8	87.	43.8	1	92.	63.5	32.8	-20.5	4.	*S 0138C 7.	*MWI0308B 11.	*SOM0312C 15
39	S 0138C	2.0	9	16.0	61.0	1.1	0.9	144.	44.2	2	97.	64.1	13.3	55.3	2.	*DDR0216C 8.	*G 0027C 8.	*SUI0140C 9
40	SOM0312C	8.0	9	44.4	6.3	3.4	1.1	81.	38.6	2	313.	63.6	43.2	11.2	6.	*TUR0145B 10.	*SYR0229C 13.	*ETH0092C 14
41	SYR0229C	8.0	9	38.0	34.5	1.0	0.6	19.	46.6	1	52.	63.7	35.9	35.7	-0.	*SOM0312C 4.	*LBY0280C 6.	*TUR0145B 6
42	BHR0255C	20.0	9	50.3	26.1	0.6	0.6	0.	48.7	1	31.	63.6	52.3	17.0	-22.	*SOM0312C-21.	*ARS0003B-11.	*PAK0127C -4
43	COM0207C	26.0	9	44.0	-12.0	0.6	0.6	0.	48.7	2	29.	63.4	43.1	-11.4	7.	*SOM0312C 10.	*MDG0236C 13.	*REU0097B 20
44	PAK0127C	38.0	9	69.4	29.5	2.2	1.9	14.	38.1	1	360.	63.7	70.0	34.0	10.	*AFG0245C 14.	*AFG0246B 18.	*SOM0312C 18
45	NPL0122C	50.0	9	84.0	28.0	1.2	0.6	154.	45.8	1	62.	63.7	80.2	28.8	-2.	*PAK0127C -1.	*IND0039C 13.	*CLN0219B 15
46	IND0039C	56.0	9	72.4	11.1	0.9	0.8	105.	45.7	1	58.	63.3	73.0	8.3	5.	*IND0041C 10.	*MLD0306B 13.	*IND0045B 14
47	CHN0157C	62.0	9	102.3	28.1	2.4	1.3	120.	39.3	2	280.	63.8	97.5	33.0	3.	*CHN0156C 7.	*IND0037B 11.	*PAK0127C 11
48	IND0046C	68.0	9	84.0	20.0	1.3	0.8	43.	44.1	1	86.	63.4	87.5	21.7	3.	*THA0142C 8.	*IND0037B 10.	*IND0042C 13
49	CBG0299C	74.0	9	104.4	12.3	0.8	0.7	42.	46.7	1	47.	63.5	104.0	14.1	-2.	*THA0142C 4.	*CHN0157C 6.	*INS0029C 7
50	SNG0151C	74.0	9	103.4	1.2	0.6	0.6	0.	48.7	2	30.	63.5	104.0	0.5	-2.	*MLA0228C -1.	*INS0029C 8.	*LAO0284D 9
51	MLA0228C	80.0	9	114.3	3.4	2.0	0.9	45.	41.7	2	153.	63.5	110.2	6.0	0.	*INS0034C 6.	*SNG0151C 6.	*CHN0187A 6

Canal **9** suite - Channel **9** cont. - Canal **9** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
52	INS0034C	86.0	9	121.4	-8.5	1.5	0.9	3.	43.2	2	109.	63.6	125.0	-9.5	6.	*AUS0010C	8.	*INS0033C	14.	*MLA0228C	14
53	CHN0160C	92.0	9	123.3	46.0	2.0	1.4	145.	39.7	1	264.	63.9	122.5	38.3	1.	*J 0111C	4.	*CHN0169A	7.	*CHN0157C	9
54	J 0111C	110.0	9	134.4	31.5	3.4	2.9	46.	34.3	2	852.	63.6	141.9	45.5	6.	*CHN0160C	6.	*KOR0112B	20.	*OCE0101C	25
55	AUS0010C	128.0	9	121.4	-24.5	3.4	1.9	56.	36.1	1	531.	63.4	126.6	-31.0	5.	*AUS0012C	9.	*AUS0012B	9.	*J 0111C	21
56	CKN0053A	152.0	9	-162.3	-11.0	1.3	0.6	30.	45.3	1	70.	63.8	-158.0	-9.0	4.	*OCE0101C	4.	*NZL0055B	12.	*AUS0010C	27
57	NZL0055B	158.0	9	173.0	-40.0	2.4	0.9	40.	40.9	1	189.	63.7	179.0	-37.6	15.	*CKN0053A	17.	*OCE0101C	24.	*AUS0010C	26

Canal **10** - Channel **10** - Canal **10**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
30	GNP0304C	-34.0	10	-14.2	12.0	0.6	0.6	0.	48.7	2	29.	63.4	-16.3	11.8	7.	*MLI0118C	10.	*CVA0083C	14.	*CAF0258C	17
31	GHA0108C	-28.0	10	-1.3	7.5	1.5	1.0	101.	42.7	1	120.	63.4	-2.9	11.0	4.	*MLI0118C	8.	*ALG0251C	13.	*MLI0269C	13
32	ALG0251C	-22.0	10	0.6	31.5	3.2	1.5	6.	37.3	1	425.	63.6	9.0	35.5	8.	*LBY0280C	12.	*GHA0108C	14.	*TCD0143C	15
33	BEL0018C	-16.0	10	4.3	50.3	0.7	0.6	160.	48.0	2	39.	63.9	6.4	50.3	1.	*DDR0216C	6.	*D 0087C	8.	*SDN0232C	10
34	GNE0303C	-16.0	10	10.3	1.4	0.6	0.6	0.	48.7	1	30.	63.4	11.3	2.4	2.	*TCD0143C	5.	*COG0235C	8.	*ALG0251C	13
35	BUL0020C	-10.0	10	24.5	42.5	0.9	0.6	163.	46.9	1	50.	63.9	22.6	44.3	-3.	*TCD0143C	-1.	*ALG0251C	4.	*ROU0136C	6
36	TCD0143C	-10.0	10	18.0	15.0	3.4	1.7	101.	36.7	2	481.	63.5	23.8	19.3	2.	*SDN0232C	5.	*ROU0136C	10.	*BUL0020C	12
37	ISR0110C	-4.0	10	34.4	31.3	0.6	0.6	0.	48.7	2	32.	63.8	34.8	29.5	-1.	*TCD0143C	-0.	*UGA0051C	12.	*IRN0109C	14
38	DDR0216C	2.0	10	12.2	52.0	0.9	0.6	154.	46.9	1	50.	63.9	9.9	51.4	2.	*BEL0018C	4.	*UGA0051C	11.	*S 0138C	12
39	UGA0051C	2.0	10	32.1	1.4	1.5	0.9	65.	42.7	2	119.	63.5	34.0	4.3	2.	*ETH0092C	4.	*TCD0143C	13.	*DDR0216C	13
40	ETH0092C	14.0	10	40.0	10.0	2.5	1.5	108.	38.4	1	318.	63.4	39.0	3.3	3.	*UGA0051C	3.	*SOM0312C	16.	*MDG0236C	20
41	KWT0113C	20.0	10	47.4	29.2	0.6	0.6	0.	48.7	2	31.	63.6	48.2	28.3	-1.	*IRN0109C	-1.	*BHR0255C	11.	*ETH0092C	16
42	MDG0236C	26.0	10	46.3	-18.5	2.7	1.1	64.	39.6	1	241.	63.4	49.0	-12.3	10.	*MYT0098C	14.	*COM0207C	16.	*ETH0092C	21
43	IRN0109C	32.0	10	54.3	33.0	3.5	1.6	150.	36.8	2	485.	63.6	46.1	33.1	5.	*KWT0113C	6.	*ALG0251C	18.	*ISR0110C	24
44	AFG0245C	50.0	10	70.4	35.1	1.0	0.9	27.	44.7	2	78.	63.6	69.3	32.0	2.	*IRN0109C	4.	*IND0042C	10.	*IND0041C	13
45	IND0041C	56.0	10	77.3	15.4	1.8	1.1	41.	41.3	2	164.	63.4	84.9	19.0	1.	*IND0042C	4.	*IND0046C	10.	*AFG0245C	11
46	CHN0156C	62.0	10	98.3	36.2	2.2	1.5	150.	39.0	1	302.	63.8	105.2	32.6	1.	*THA0142C	4.	*CHN0157C	8.	*CHN0155C	10
47	IND0042C	68.0	10	79.0	27.1	1.7	0.8	143.	42.9	2	114.	63.5	84.6	25.8	-3.	*THA0142C	2.	*IND0044C	5.	*CHN0155C	5

Canal **10** suite - Channel **10** cont. - Canal **10** cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
48	THA0142C	68.0	10	100.8	13.1	2.5	1.2	104.	39.6	1	252.	63.6	105.4	14.3	-5.	*LAO0284D	-3.	*CBG0299C	5.	*IND0042C	6
49	INS0029C	74.0	10	104.0	-2.4	1.4	1.3	83.	41.8	1	147.	63.5	104.3	1.0	-4.	*THA0142C	-4.	*SNG0151C	8.	*CBG0299C	9
50	LAO0284D	74.0	10	103.5	18.0	1.8	0.6	130.	43.9	2	92.	63.5	105.5	14.0	-4.	*THA0142C	-2.	*INS0029C	5.	*CBG0299C	7
51	CHN0187A	80.0	10	106.3	26.4	0.9	0.7	4.	46.7	2	49.	63.6	104.7	24.6	-4.	*LAO0284D	-2.	*THA0142C	3.	*MLA0227C	8
52	INS0033C	86.0	10	122.1	-1.4	1.8	0.9	77.	42.0	1	144.	63.6	122.8	-5.7	6.	*INS0034C	9.	*INS0036A	12.	*INS0032C	16
53	CHN0171A	92.0	10	116.5	32.0	0.9	0.6	136.	46.8	2	48.	63.6	119.6	31.1	-1.	*KOR0112B	1.	*CHN0162C	8.	*CHN0156C	9
54	INS0036A	98.0	10	135.0	-5.1	2.0	1.4	85.	39.7	2	243.	63.6	130.0	-3.0	5.	*INS0033C	7.	*PHL0285C	14.	*KOR0112B	21
55	KOR0112B	104.0	10	128.1	35.4	1.3	0.9	8.	43.6	2	103.	63.7	126.5	37.3	5.	*J 0111C	8.	*CHN0156C	11.	*INS0036A	15
56	AUS0012C	128.0	10	135.2	-30.1	1.8	1.4	45.	40.2	2	212.	63.5	129.5	-30.7	8.	*AUS0011A	11.	*AUS0010C	11.	*INS0036A	24
57	NCL0100C	140.0	10	166.0	-21.0	1.1	0.7	146.	45.1	1	69.	63.5	167.5	-23.0	18.	*FJI0193C	22.	*AUS0012C	23.	*INS0036A	26
58	FJI0193C	152.0	10	179.3	-17.4	0.8	0.8	133.	46.5	2	50.	63.5	-179.1	-16.1	12.	*WAL0102C	15.	*CKN0053A	17.	*NCL0100C	21

Canal **11** - Channel **11** - Canal **11**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
30	CPV0301C	-34.0	11	-24.0	15.4	0.6	0.6	0.	48.7	1	29.	63.3	-25.1	17.0	10.	*CAF0258C 14. *	*IRL0211C 16. *	*MLI0269C 18 *
31	IRL0211C	-28.0	11	-7.5	53.2	0.8	0.6	62.	47.3	1	46.	64.0	-10.3	54.3	1.	*MLI0269C 3. *	*CTI0237C 9. *	*GHA0108C 11 *
32	MLI0269C	-28.0	11	-2.1	19.2	2.6	1.2	146.	39.3	2	264.	63.5	-12.0	13.8	-17.	*CAF0258C-11. *	*GNP0304C-11. *	*GMB0302C-10 *
33	D 0087C	-16.0	11	9.3	50.3	1.4	0.7	149.	44.4	1	90.	64.0	13.5	52.4	-0.	*SDN0232C 6. *	*TCH0144C 6. *	*FNL0103C 8 *
34	SDN0232C	-16.0	11	30.0	18.4	1.7	1.4	134.	40.4	2	218.	63.8	36.8	16.0	-1.	*MOZ0307C 0. *	*D 0087C 8. *	*ZAI0323C 14 *
35	CAF0258C	-10.0	11	-20.2	6.2	2.6	1.5	14.	38.2	1	321.	63.3	23.2	11.0	-24.	*MOZ0307C-21. *	*SDN0232C-18. *	*TCD0143C-14 *
36	ROU0136C	-10.0	11	24.3	45.2	1.3	0.8	171.	44.1	2	97.	64.0	28.5	43.7	-2.	*TCD0143C 0. *	*CAF0258C 5. *	*BUL0020C 8 *
37	MLT0147C	-4.0	11	14.2	35.5	0.6	0.6	0.	48.7	1	31.	63.6	14.4	35.9	10.	*CAF0258C 16. *	*ROU0136C 17. *	*MOZ0307C 17 *
38	FNL0103C	2.0	11	23.3	63.3	1.4	0.8	165.	43.8	2	111.	64.2	20.7	69.1	4.	*MOZ0307C 6. *	*IRL0211C 12. *	*D 0087C 15 *
39	MOZ0307C	2.0	11	34.3	17.3	3.2	1.2	58.	38.3	1	338.	63.6	35.0	-11.8	-18.	*MWI0308C-16. *	*FNL0103C-12. *	*UGA0051C -5 *
40	LBN0279C	8.0	11	36.0	34.0	0.6	0.6	0.	48.7	1	32.	63.7	35.4	33.7	7.	*TUR0145C 11. *	*MOZ0307C 15. *	*MWI0308C 17 *
41	UAE0274C	20.0	11	53.3	24.0	0.8	0.7	168.	46.9	1	48.	63.7	50.8	24.6	2.	*MOZ0307C 5. *	*SDN0232C 9. *	*ARS0003C 11 *
42	MYT0098C	26.0	11	45.0	-12.5	0.6	0.6	0.	48.7	2	30.	63.4	45.0	-12.8	10.	*MDG0236C 11. *	*REU0097C 18. *	*ZAI0323C 24 *
43	PAK0210A	38.0	11	71.5	30.4	0.9	0.6	102.	46.5	1	53.	63.7	75.2	32.2	-1.	*CHN0155C 1. *	*IND0044C 5. *	*MOZ0307C 11 *
44	IND0043C	56.0	11	77.4	10.5	1.4	1.0	40.	42.8	1	115.	63.4	80.3	13.5	4.	*IND0044C 8. *	*IND0041C 8. *	*IND0045C 15 *
45	CHN0155C	62.0	11	88.3	31.4	3.2	1.2	164.	38.4	2	338.	63.7	86.0	28.0	2.	*IND0044C 3. *	*CHN0156C 14. *	*IND0042C 14 *
46	IND0044C	68.0	11	80.0	23.2	2.0	1.3	150.	40.1	1	216.	63.4	78.2	26.9	1.	*CHN0155C 4. *	*IND0042C 8. *	*THA0142C 9 *
47	CHN0165A	80.0	11	111.4	41.5	1.4	0.9	16.	43.3	1	113.	63.9	105.3	41.6	6.	*MLA0227C 8. *	*CHN0155C 13. *	*CHN0156C 17 *
48	MLA0227C	80.0	11	102.1	4.0	1.4	0.6	115.	45.0	2	69.	63.4	98.8	6.2	-0.	*CHN0165A 5. *	*CHN0178A 8. *	*CHN0187A 8 *
49	INS0032C	86.0	11	115.5	-0.2	1.7	0.9	78.	42.4	2	128.	63.5	119.0	1.0	-1.	*PHL0285C 1. *	*INS0033C 7. *	*MLA0227C 12 *
50	CHN0162C	92.0	11	115.2	21.3	2.7	1.7	45.	37.7	1	385.	63.5	119.0	19.3	-8.	*PHL0285C -8. *	*INS0032C 21. *	*CHN0165A 24 *
51	PHL0285C	98.0	11	122.0	11.1	2.9	1.6	102.	37.5	1	388.	63.4	122.0	21.0	-11.	*CHN0162C-11. *	*CHN0155C 20. *	*PNG0131C 20 *
52	PNG0131C	110.0	11	147.3	-6.3	2.3	2.0	139.	37.5	2	406.	63.6	141.0	-2.6	13.	*INS0036A 16. *	*AUS0011A 21. *	*PHL0285C 22 *
53	AUS0011A	128.0	11	133.3	-18.4	2.5	1.3	80.	39.1	1	265.	63.4	137.9	-17.2	5.	*AUS0008A 7. *	*PNG0131C 13. *	*AUS0012C 14 *
54	NRU0309C	134.0	11	166.3	-0.1	0.6	0.6	0.	48.7	1	30.	63.5	162.0	-3.0	-16.	*PNG0131C-15. *	*AUS0011A -8. *	*PHL0285C 4 *
55	WAL0102C	140.0	11	-177.2	-13.2	0.8	0.6	66.	47.5	2	42.	63.7	-176.6	-13.3	10.	*TON0215C 12. *	*PNG0131C 18. *	*CKH0052C 24 *

Canal 11 suite - Channel 11 cont. - Canal 11 cont.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
56	CKH0052C	152.0	11	-160.1	-19.3	0.9	0.6	155.	46.9	1	50.	63.9	-160.0	-21.3	17.	*WAL0102C 20. *	*TON0215C 23. *	*FJI0193C 26. *
57	TON0215C	170.0	11	-175.0	-19.0	1.4	0.6	70.	45.1	2	67.	63.4	-175.6	-15.6	-0.	*WAL0102C -0.	*PNG0131C 14.	*SMO0057C 21

Canal 12 - Channel 12 - Canal 12

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
29	GMB0302C	-34.0	12	-15.1	13.2	0.6	0.6	0.	48.7	2	30.	63.4	-14.2	13.3	7.	*MLI0118D 10. *	*ALG0252C 15. *	*CTI0237C 15 *
30	AND0262C	-28.0	12	1.3	42.3	0.6	0.6	0.	48.7	2	33.	63.9	1.7	42.7	4.	*CTI0237C 10. *	*ALG0252C 11. *	*MLI0269C 12 *
31	CTI0237C	-28.0	12	-5.3	7.3	1.6	1.2	102.	41.3	1	161.	63.4	-3.5	9.8	2.	*ALG0252C 5. *	*MLI0118D 10. *	*G 0027D 14 *
32	ALG0252C	-22.0	12	1.5	25.0	3.5	2.1	162.	35.7	1	617.	63.6	9.5	30.0	5.	*LBY0280D 7. *	*ZAI0323C 13. *	*CTI0237C 13 *
33	HOL0213C	-16.0	12	5.0	51.3	0.7	0.6	165.	48.0	2	39.	64.0	6.6	53.7	-1.	*ZAI0323C 1. *	*TCH0144C 8. *	*D 0087C 8 *
34	ZAI0323C	-16.0	12	23.0	-3.3	3.5	3.5	0.	33.4	1	1070.	63.7	12.5	-5.9	1.	*GAB0260C 2. *	*COG0235D 8. *	*ALG0252C 14 *
35	GAB0260C	-10.0	12	11.5	-0.4	1.4	1.1	80.	42.3	2	129.	63.4	14.0	2.0	-3.	*ZAI0323C -2. *	*COG0235D 7. *	*TCH0144C 11 *
36	TCH0144C	-10.0	12	17.1	49.1	1.3	0.6	167.	45.3	1	73.	64.0	12.1	50.3	-1.	*D 0087C 5. *	*SUT0140D 6. *	*HOL0213C 6 *
37	ISL0050C	2.0	12	-19.3	61.0	2.0	0.6	4.	43.5	1	118.	64.2	-6.2	62.3	8.	*S 0138D 15. *	*MOZ0307C 15. *	*FNL0103C 16 *
38	MWI0308C	8.0	12	33.5	-13.0	1.4	0.6	89.	45.0	1	71.	63.5	32.8	-9.3	-0.	*ZAI0323C 1. *	*TUR0145C 7. *	*SOM0312D 16 *
39	TUR0145C	8.0	12	34.1	38.5	2.4	0.9	165.	40.7	2	204.	63.8	42.7	41.5	0.	*MWI0308C 6. *	*SOM0312D 6. *	*URS0060C 7 *
40	URS0060C	14.0	12	44.0	61.1	2.3	1.3	156.	39.5	1	297.	64.2	43.6	47.5	2.	*TUR0145C 3. *	*ARS0003C 13. *	*MWI0308C 17 *
41	ARS0003C	20.0	12	42.0	23.0	3.1	1.3	132.	38.2	2	341.	63.5	55.5	24.0	-8.	*UAE0274C -6. *	*BHR0255D 2. *	*AFG0246C 5 *
42	REU0097C	26.0	12	55.1	-19.3	1.3	0.8	110.	44.1	1	89.	63.6	54.7	-15.7	6.	*ZAI0323C 7. *	*ARS0003C 19. *	*ALG0252C 24 *
43	MLD0306C	44.0	12	72.3	4.0	2.3	0.6	96.	42.9	2	114.	63.5	72.5	7.0	12.	*AFG0246C 16. *	*IND0043C 20. *	*IND0039D 21 *
44	AFG0246C	50.0	12	64.1	33.2	1.3	1.2	64.	42.3	2	134.	63.6	65.7	37.6	4.	*CHN0154C 6. *	*MLD0306C 13. *	*IND0045C 13 *
45	CLN0219C	50.0	12	80.3	7.4	0.6	0.6	0.	48.7	1	30.	63.5	80.0	10.0	-3.	*IND0043C -1. *	*AFG0246C 2. *	*IND0045C 12 *
46	IND0045C	56.0	12	76.3	19.4	1.6	1.0	43.	42.2	2	134.	63.5	74.0	15.7	3.	*MLD0306C 5. *	*IND0039D 12. *	*AFG0246C 13 *
47	CHN0154C	62.0	12	84.2	40.1	2.5	1.6	3.	38.3	1	355.	63.8	73.6	39.0	4.	*AFG0246C 6. *	*CHN0155C 12. *	*TUR0145C 20 *
48	IND0037C	68.0	12	93.0	26.0	1.4	0.9	40.	43.2	2	108.	63.6	96.0	29.5	0.	*CHN0155C 6. *	*LAO0284E 6. *	*CHN0186A 7 *
49	INS0028C	74.0	12	99.0	1.2	1.9	0.8	130.	42.4	1	126.	63.4	102.2	1.8	0.	*SNG0151D 5. *	*CBG0299D 6. *	*LAO0284E 7 *
50	LAO0284E	74.0	12	103.5	18.0	1.8	0.6	130.	43.9	2	92.	63.6	105.5	14.0	2.	*CBG0299D 7. *	*INS0028C 8. *	*SNG0151D 9. *

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
51	CHN0178A	80.0	12	111.5	27.4	1.0	0.6	121.	46.2	2	56.	63.7	113.7	25.2	3.	*MLA0228D 7. *	*MLA0227C 11. *	*LA00284E 12. *
52	INS0030C	86.0	12	110.3	-7.5	1.3	0.7	163.	44.8	1	73.	63.4	105.8	-7.5	2.	*INS0028C 3. *	*INS0034D 13. *	*INS0032C 13. *
53	CHN0170A	92.0	12	120.0	32.4	1.3	0.6	150.	45.5	2	67.	63.7	121.5	30.6	7.	*CHN0162C 11. *	*CHN0174A 13. *	*INS0035A 15. *
54	INS0035A	98.0	12	128.1	-1.5	1.8	1.1	77.	41.3	2	167.	63.5	124.5	-1.9	10.	*PHL0285C 12. *	*CHN0170A 22. *	*KRE0286B 22.
55	KRE0286B	104.0	12	127.3	42.3	1.3	0.6	134.	44.8	2	79.	63.8	126.6	38.0	3.	*J 0111D 6. *	*CHN0170A 10. *	*INS0035A 14. *
56	AUS0008A	128.0	12	145.5	-21.3	2.7	1.8	120.	37.4	2	406.	63.5	142.2	-10.6	7.	*AUS0011B 12. *	*AUS0011A 12. *	*PNG0131C 16. *
57	NHB0128C	140.0	12	168.0	-16.5	1.0	0.6	95.	46.3	1	53.	63.5	166.9	-15.0	19.	*AUS0008A 23. *	*INS0035A 27. *	*PNG0131C 27. *
58	SMO0057C	158.0	12	-172.0	-13.4	0.6	0.6	0.	48.7	2	31.	63.5	-172.5	-13.6	16.	*TON0215C 21. *	*NZL0055C 23. *	*WAL0102C 23.

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
31	OCE0101D	-160.0	13	-144.3	-16.0	3.8	3.3	176.	33.2	1	1040.	63.4	-139.3	-9.0	20.	*CKN0053B 21. *	*NZL0055C 26. *	*SM00057C 49 *
32	NIG0119D	-34.0	13	7.1	9.3	1.8	1.3	85.	40.7	1	201.	63.7	5.5	14.0	4.	*MLI0118D 5. *	*G 0027D 16. *	*LBY0280D 16 *
33	G 0027D	-28.0	13	-3.3	53.5	1.6	0.8	149.	42.9	1	130.	64.0	1.3	51.1	3.	*SUI0140D 8. *	*MLI0118D 9. *	*CTI0237C 12 *
34	MLI0118D	-28.0	13	-6.5	13.2	1.9	1.1	170.	41.0	2	176.	63.5	-2.5	23.3	-20.	*LBY0280D-16. *	*G 0027D-14. *	*AND0262C-11 *
35	LBY0280D	-22.0	13	15.3	29.3	1.8	1.7	127.	39.3	2	284.	63.8	25.0	20.0	-7.	*MLI0118D -0. *	*NIG0119D 0. *	*ALG0252C 0 *
36	SUI0140D	-16.0	13	8.1	46.4	1.0	0.8	171.	45.5	1	69.	63.9	8.5	47.8	3.	*G 0027D 7. *	*TCH0144C 11. *	*ZAI0323C 11 *
37	COG0235D	-10.0	13	14.4	-0.4	1.9	1.0	67.	41.5	1	157.	63.4	18.5	4.3	1.	*ZAI0323C 5. *	*TCD0143D 7. *	*NIG0119D 10 *
38	HNG0106D	-10.0	13	19.3	47.0	0.8	0.6	152.	47.4	2	45.	64.0	17.3	48.1	-1.	*SUI0140D 3. *	*S 0138D 7. *	*TCH0144C 8 *
39	RHS0135D	2.0	13	29.0	-18.3	1.3	0.8	87.	43.8	1	93.	63.6	32.8	-20.5	4.	*S 0138D 7. *	*MWI0308C 11. *	*SOM0312D 15 *
40	S 0138D	2.0	13	16.0	61.0	1.1	0.9	144.	44.2	2	99.	64.2	13.3	55.3	2.	*ODR0216D 8. *	*G 0027D 8. *	*SUI0140D 9 *
41	SOM0312D	8.0	13	44.4	6.3	3.4	1.1	91.	38.6	2	318.	63.6	43.2	11.2	6.	*TUR0145C 10. *	*SYR0229D 13. *	*ETH0092D 14 *
42	SYR0229D	8.0	13	38.0	34.5	1.0	0.6	19.	46.6	1	53.	63.8	35.9	35.7	-0.	*SOM0312D 4. *	*LBY0280D 6. *	*TUR0145C 6 *
43	BHR0255D	20.0	13	50.3	26.1	0.6	0.6	0.	48.7	1	32.	63.7	52.3	17.0	-22.	*SOM0312D-21. *	*ARS0003C-11. *	*ETH0092D -3 *
44	COM0207D	26.0	13	44.0	-12.0	0.6	0.6	0.	48.7	2	30.	63.4	43.1	-11.4	7.	*SOM0312D 10. *	*MDG0236D 13. *	*REU0097C 20 *
45	PAK0283A	38.0	13	74.4	33.5	1.1	0.9	160.	44.0	1	97.	63.8	72.8	36.7	8.	*AFG0245D 12. *	*SOM0312D 18. *	*CHN0154C 18 *
46	IND0039D	56.0	13	72.4	11.1	0.9	0.8	105.	45.7	1	59.	63.4	73.0	8.3	6.	*IND0041D 10. *	*MLD0306C 13. *	*IND0045C 14 *
47	CHN0186A	62.0	13	103.0	30.1	1.8	0.9	146.	42.0	2	153.	63.9	97.4	33.2	5.	*CHN0184A 8. *	*IND0037C 11. *	*CHN0154C 13 *
48	IND0046D	68.0	13	84.0	20.0	1.3	0.8	43.	44.1	1	87.	63.5	87.5	21.7	4.	*THA0142D 8. *	*IND0037C 10. *	*IND0042D 13 *
49	CBG0299D	74.0	13	104.4	12.3	0.8	0.7	42.	46.7	1	48.	63.6	107.5	12.5	-0.	*INS0029D 6. *	*INS0028C 6. *	*THA0142D 6 *
50	SNG0151D	74.0	13	103.4	1.2	0.6	0.6	0.	48.7	2	30.	63.5	104.0	0.5	-2.	*MLA0228D -0. *	*INS0029D 8. *	*LAO0284E 9 *
51	MLA0228D	80.0	13	114.3	3.4	2.0	0.9	45.	41.7	2	155.	63.6	110.2	6.0	-3.	*CHN0181A 1. *	*CHN0178A 3. *	*INS0034D 6 *
52	INS0034D	86.0	13	121.4	-8.5	1.5	0.9	3.	43.2	2	110.	63.6	116.0	-8.9	6.	*INS0030C 10. *	*MLA0228D 12. *	*INS0033D 13 *
53	CHN0174A	92.0	13	118.3	25.5	0.8	0.7	84.	46.6	1	51.	63.6	118.7	28.3	-1.	*J 0111D 3. *	*CHN0172A 5. *	*CHN0186A 7 *
54	J 0111D	110.0	13	134.4	31.5	3.4	2.9	46.	34.3	2	864.	63.7	123.7	24.3	9.	*CHN0174A 11. *	*CHN0186A 18. *	*MLA0228D 25 *
55	AUS0011B	128.0	13	133.3	-18.4	2.5	1.3	80.	39.1	1	266.	63.4	137.9	-17.2	4.	*AUS0008B 7. *	*AUS0008A 7. *	*J 0111D 22 *
56	CKN0053B	152.0	13	-162.3	-11.0	1.3	0.6	30.	45.3	1	71.	63.8	-158.0	-9.0	4.	*OCE0101D 4. *	*NZL0055C 12. *	*AUS0011B 31 *
57	NZL0055C	158.0	13	173.0	-40.0	2.4	0.9	40.	40.9	1	192.	63.7	179.0	-37.6	15.	*CKN0053B 17. *	*OCE0101D 24. *	*J 0111D 26 *

Canal **14** - Channel **14** - Canal **14**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
28	GNP0304D	-34.0	14	-14.2	12.0	0.6	0.6	0.	48.7	2	30.	63.4	-16.3	11.8	8.	*MLI0118D	10.	*CAF0258D	17.	*GHA0108D	18
29	GHA0108D	-28.0	14	-1.3	7.5	1.5	1.0	101.	42.7	1	121.	63.5	-2.9	11.0	4.	*MLI0118D	8.	*ALG0251D	13.	*MLI0269D	13
30	ALG0251D	-22.0	14	0.6	31.5	3.2	1.5	6.	37.3	1	431.	63.7	9.0	35.5	8.	*LBY0280D	12.	*GHA0108D	14.	*TCD0143D	15
31	BEL0018D	-16.0	14	4.3	50.3	0.7	0.6	160.	48.0	2	39.	64.0	6.4	50.3	1.	*DDR0216D	6.	*D 0087D	8.	*SDN0232D	10
32	GNE0303D	-16.0	14	10.3	1.4	0.6	0.6	0.	48.7	1	30.	63.5	11.3	2.4	2.	*TCD0143D	5.	*COG0235D	8.	*ALG0251D	13
33	BUL0020D	-10.0	14	24.5	42.5	0.9	0.6	163.	46.9	1	51.	64.0	22.6	44.3	-3.	*TCD0143D	-1.	*ALG0251D	5.	*ROU0136D	6
34	TCD0143D	-10.0	14	18.0	15.0	3.4	1.7	101.	36.7	2	487.	63.6	23.8	19.3	2.	*SDN0232D	5.	*ROU0136D	10.	*BUL0020D	12
35	ISR0110D	-4.0	14	34.4	31.3	0.6	0.6	0.	48.7	2	33.	63.9	34.8	29.5	-1.	*TCD0143D	-0.	*UGA0051D	12.	*IRN0109D	14
36	DDR0216D	2.0	14	12.2	52.0	0.9	0.6	154.	46.9	1	51.	64.0	9.9	51.4	2.	*BEL0018D	4.	*UGA0051D	11.	*S 0138D	12
37	UGA0051D	2.0	14	32.1	1.4	1.5	0.9	65.	42.7	2	121.	63.5	34.0	4.3	2.	*ETH0092D	4.	*DDR0216D	13.	*TCD0143D	14
38	ETH0092D	14.0	14	40.0	10.0	2.5	1.5	108.	38.4	1	323.	63.5	39.0	3.3	3.	*UGA0051D	3.	*SOM0312D	16.	*MDG0236D	20
39	KWT0113D	20.0	14	47.4	29.2	0.6	0.6	0.	48.7	2	32.	63.7	48.2	28.3	-1.	*IRN0109D	-1.	*BHR0255D	11.	*ETH0092D	16
40	MDG0236D	26.0	14	46.3	-18.5	2.7	1.1	64.	39.6	1	244.	63.5	49.0	-12.3	10.	*MYT0098D	14.	*COM0207D	16.	*ETH0092D	21
41	IRN0109D	32.0	14	54.3	33.0	3.5	1.6	150.	36.8	2	492.	63.7	46.1	33.1	5.	*KWT0113D	6.	*ALG0251D	18.	*ISR0110D	24
42	AFG0245D	50.0	14	70.4	35.1	1.0	0.9	27.	44.7	2	79.	63.7	69.3	32.0	2.	*IRN0109D	4.	*IND0042D	10.	*IND0041D	13
43	IND0041D	56.0	14	77.3	15.4	1.8	1.1	41.	41.3	2	166.	63.5	84.9	19.0	1.	*IND0042D	4.	*IND0046D	10.	*AFG0245D	11
44	CHN0184A	62.0	14	100.5	37.5	2.4	0.7	149.	41.8	1	162.	63.9	105.8	32.9	2.	*THA0142D	4.	*CHN0186A	8.	*CHN0155D	11
45	IND0042D	68.0	14	79.0	27.1	1.7	0.8	143.	42.9	2	115.	63.5	84.6	25.8	-3.	*THA0142D	2.	*IND0044D	5.	*CHN0155D	5.
46	THA0142D	68.0	14	100.8	13.1	2.5	1.2	104.	39.6	1	255.	63.6	105.4	14.3	-0.	*CBG0299D	5.	*IND0042D	6.	*IND0044D	8.
47	INS0029D	74.0	14	104.0	-2.4	1.4	1.3	83.	41.8	1	149.	63.5	104.3	1.0	-4.	*THA0142D	-4.	*SNG0151D	8.	*CBG0299D	9.
48	CHN0181A	80.0	14	108.2	24.0	1.1	0.8	145.	44.7	2	78.	63.6	104.5	24.5	-0.	*THA0142D	2.	*MLA0227D	7.	*MLA0228D	10.
49	INS0033D	86.0	14	122.1	-1.4	1.8	0.9	77.	42.0	1	146.	63.6	122.8	-5.7	6.	*INS0034D	9.	*INS0036B	12.	*INS0032D	16
50	CHN0172A	92.0	14	120.4	29.1	0.7	0.6	150.	47.8	2	39.	63.7	122.8	30.9	-3.	*KOR0112C	-2.	*CHN0184A	9.	*CHN0174A	11
51	INS0036B	98.0	14	135.0	-5.1	2.0	1.4	85.	39.7	2	246.	63.7	142.5	-8.0	4.	*AUS0008B	6.	*PHL0285D	14.	*INS0033D	19
52	KOR0112C	104.0	14	128.1	35.4	1.3	0.9	8.	43.6	2	104.	63.7	126.3	33.1	3.	*J 0111D	7.	*CHN0172A	8.	*CHN0184A	13
53	AUS0008B	128.0	14	145.5	-21.3	2.7	1.8	120.	37.4	2	409.	63.5	142.2	-10.6	1.	*INS0036B	1.	*AUS0011C	12.	*AUS0011B	12
54	NCL0100D	140.0	14	166.0	-21.0	1.1	0.7	146.	45.1	1	70.	63.6	164.0	-19.7	18.	*AUS0008B	20.	*INS0036B	27.	*INS0033D	28

Canal 15 - Channel 15 - Canal 15

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
28	CPV0301D	-34.0	15	-24.0	15.4	0.6	0.6	0.	48.7	1	30.	63.4	-25.1	17.0	10.	*CAF0258D	14.	*IRL0211D	16.	*MLI0269D	18.
29	IRL0211D	-28.0	15	-7.5	53.2	0.8	0.6	62.	47.3	1	47.	64.0	-10.3	54.3	1.	*MLI0269D	3.	*CTI0237D	9.	*GHA0108D	11.
30	MLI0269D	-28.0	15	-2.1	19.2	2.6	1.2	146.	39.3	2	268.	63.6	-12.0	13.8	-17.	*CAF0258D	-11.	*GNP0304D	-11.	*GMB0302D	-10.
31	D 0087D	-16.0	15	9.3	50.3	1.4	0.7	149.	44.4	1	92.	64.0	13.5	52.4	-0.	*SDN0232D	6.	*TCH0144D	6.	*FNL0103D	8.
32	SDN0232D	-16.0	15	30.0	18.4	1.7	1.4	134.	40.4	2	221.	63.9	36.8	16.0	-1.	*MOZ0307D	0.	*D 0087D	8.	*ZAI0323D	14.
33	CAF0258D	-10.0	15	-20.2	6.2	2.6	1.5	14.	38.2	1	326.	63.4	23.2	11.0	-24.	*MOZ0307D	-20.	*SDN0232D	-18.	*TCD0143D	-14.
34	ROU0136D	-10.0	15	24.3	45.2	1.3	0.8	171.	44.1	2	99.	64.0	28.5	43.7	-2.	*TCD0143D	0.	*CAF0258D	5.	*BUL0020D	8.
35	MLT0147D	-4.0	15	14.2	35.5	0.6	0.6	0.	48.7	1	32.	63.7	14.4	35.9	10.	*CAF0258D	16.	*ROU0136D	17.	*MOZ0307D	17.
36	FNL0103D	2.0	15	23.3	63.3	1.4	0.8	165.	43.8	2	112.	64.3	20.7	69.1	4.	*MOZ0307D	6.	*IRL0211D	12.	*D 0087D	15.
37	MOZ0307D	2.0	15	34.3	17.3	3.2	1.2	58.	38.3	1	342.	63.7	35.0	-11.8	-18.	*MWI0308D	-16.	*FNL0103D	-12.	*UGA0051D	-5.
38	LBN0279D	8.0	15	36.0	34.0	0.6	0.6	0.	48.7	1	32.	63.8	35.4	33.7	7.	*TUR0145D	11.	*MOZ0307D	16.	*MWI0308D	17.
39	UAE0274D	20.0	15	53.3	24.0	3.8	0.7	168.	46.9	1	48.	63.7	50.8	24.6	2.	*MOZ0307D	5.	*SDN0232D	9.	*ARS0003D	11.
40	MYT0098D	26.0	15	45.0	-12.5	0.6	0.6	0.	48.7	2	30.	63.5	45.0	-12.8	10.	*MDG0236D	11.	*REU0097D	18.	*ZAI0323D	24.
41	PAK0210B	38.0	15	71.5	30.4	0.9	0.6	102.	46.5	1	54.	63.8	75.2	32.2	-1.	*CHN0155D	1.	*IND0044D	5.	*MOZ0307D	11.
42	IND0043D	56.0	15	77.4	10.5	1.4	1.0	40.	42.3	1	117.	63.5	80.3	13.5	4.	*IND0044D	8.	*IND0041D	8.	*IND0045D	15.
43	CHN0155D	62.0	15	88.3	31.4	3.2	1.2	164.	38.4	2	343.	63.7	92.4	26.9	-2.	*BGD0220A	-0.	*IND0037D	4.	*IND0044D	11.
44	IND0044D	68.0	15	80.0	23.2	2.0	1.3	150.	40.1	1	218.	63.5	78.2	26.9	1.	*CHN0155D	4.	*IND0042D	8.	*THA0142D	9.
45	BGD0220A	74.0	15	90.0	24.0	1.2	0.7	138.	45.0	2	71.	63.5	89.8	26.0	-2.	*CHN0155D	-0.	*IND0037D	6.	*IND0044D	7.
46	CHN0158A	80.0	15	111.5	37.4	2.6	1.5	126.	38.5	1	344.	63.9	105.8	32.9	3.	*CHN0155D	5.	*MLA0227D	10.	*CHN0181A	16.
47	MLA0227D	80.0	15	102.1	4.0	1.4	0.6	115.	45.0	2	70.	63.4	98.8	6.2	-3.	*CHN0158A	-0.	*CHN0181A	5.	*INS0032D	9.
48	INS0032D	86.0	15	115.5	-0.2	1.7	0.9	78.	42.4	2	130.	63.5	119.0	1.0	-1.	*PHL0285D	1.	*INS0033D	7.	*MLA0227D	12.
49	CHN0179A	92.0	15	112.2	22.0	1.9	0.9	35.	42.1	1	138.	63.5	117.6	23.2	-6.	*PHL0285D	-6.	*CHN0158A	5.	*CHN0173A	8.
50	PHL0285D	98.0	15	122.0	11.1	2.9	1.6	102.	37.5	1	394.	63.5	122.0	21.0	1.	*CHN0179A	2.	*AUS0005A	12.	*CHN0158A	15.
51	AUS0005A	104.0	15	133.3	-18.4	2.5	1.3	80.	39.1	1	281.	63.6	135.6	-12.0	1.	*AUS0011C	2.	*PHL0285D	13.	*INS0036B	16.
52	AUS0011C	128.0	15	133.3	-18.4	2.5	1.3	80.	39.1	1	268.	63.4	137.9	-17.2	-2.	*AUS0005A	-0.	*AUS0008C	7.	*AUS0008B	7.
53	AUS0015A	134.0	15	146.5	-31.3	1.6	1.0	45.	42.2	1	138.	63.6	150.0	-36.5	2.	*AUS0013A	5.	*AUS0011C	8.	*AUS0005A	14.

	1	2	3	4	5	6	7	8	9a	9b	10	11	12	13	14
54	WAL0102D	140.0	15	-177.2 -13.2	0.8 0.6	66.	47.5	2	43.	63.8	-176.6 -13.3	11.	*TON0215D 12. *	*CKH0052D 24. *	*AUS0015A 25 *
55	CKH0052D	152.0	15	-160.1 -19.3	0.9 0.6	155.	46.9	1	50.	63.9	-160.0 -21.3	17.	*WAL0102D 20. *	*TON0215D 23. *	*AUS0015A 26 *
56	TON0215D	170.0	15	-175.0 -19.0	1.4 0.6	70.	45.1	2	58.	63.5	-175.6 -15.6	-0.	*WAL0102D -0.	*SMO0057D 21.	*CKH0052D 22

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
30	GMB0302D	-34.0	16	-15.1	13.2	0.6	0.6	0.	48.7	2	30.	63.5	-14.2	13.3	7.	*MLI0118E 10. *	*ALG0252D 15. *	*CTI0237D 15 *
31	AND0262D	-28.0	16	1.3	42.3	0.6	0.6	0.	48.7	2	33.	63.9	1.7	42.7	4.	*CTI0237D 10. *	*ALG0252D 11. *	*MLI0269D 12 *
32	CTI0237D	-28.0	16	-5.3	7.3	1.6	1.2	102.	41.3	1	164.	63.5	-3.5	9.8	2.	*ALG0252D 5. *	*MLI0118E 10. *	*G 0027E 14 *
33	ALG0252D	-22.0	16	1.5	25.0	3.5	2.1	162.	35.7	1	626.	63.6	9.5	30.0	5.	*LBY0280E 7. *	*ZAI0323D 13. *	*CTI0237D 13 *
34	HOL0213D	-16.0	16	5.0	51.3	0.7	0.6	165.	48.0	2	40.	64.0	6.6	53.7	-1.	*ZAI0323D 1. *	*TCH0144D 8. *	*D 0087D 8 *
35	ZAI0323D	-16.0	16	23.0	-3.3	3.5	3.5	0.	33.4	1	1084.	63.7	12.5	-5.9	1.	*GAB0260D 2. *	*COG0235E 8. *	*ALG0252D 14 *
36	GAB0260D	-10.0	16	11.5	-0.4	1.4	1.1	80.	42.3	2	131.	63.5	14.0	2.0	-3.	*ZAI0323D -2. *	*COG0235E 7. *	*TCH0144D 11 *
37	TCH0144D	-10.0	16	17.1	49.1	1.3	0.6	167.	45.3	1	74.	64.0	12.1	50.3	-1.	*D 0087D 5. *	*SUI0140E 6. *	*HOL0213D 6 *
38	ISL0050D	2.0	16	-19.3	61.0	2.0	0.6	4.	43.5	1	119.	64.2	-6.2	62.3	8.	*S 0138E 15. *	*MOZ0307D 15. *	*FNL0103D 16 *
39	MWI0308D	8.0	16	33.5	-13.0	1.4	0.6	89.	45.0	1	72.	63.5	32.8	-9.3	0.	*ZAI0323D 1. *	*TUR0145D 7. *	*URS0060D 20 *
40	TUR0145D	8.0	16	34.1	38.5	2.4	0.9	165.	40.7	2	207.	63.8	42.7	41.5	1.	*MWI0308D 6. *	*URS0060D 7. *	*ARS0003D 8 *
41	URS0060D	14.0	16	44.0	61.1	2.3	1.3	156.	39.5	1	301.	64.3	43.6	47.5	2.	*TUR0145D 3. *	*ARS0003D 13. *	*MWI0308D 17 *
42	ARS0003D	20.0	16	42.0	23.0	3.1	1.3	132.	33.2	2	346.	63.6	55.5	24.0	-8.	*UAE0274D -6. *	*AFG0246D 5. *	*ALG0252D 6 *
43	REU0097D	26.0	16	55.1	-19.3	1.3	0.8	110.	44.1	1	90.	63.6	54.7	-15.7	6.	*ZAI0323D 7. *	*ARS0003D 19. *	*ALG0252D 24 *
44	MLD0306D	44.0	16	72.3	4.0	2.3	0.6	96.	42.9	2	115.	63.5	74.0	2.5	12.	*AFG0246D 16. *	*CLN0219D 20. *	*IND0045D 21 *
45	AFG0246D	50.0	16	64.1	33.2	1.3	1.2	64.	42.3	2	136.	63.7	65.7	37.6	4.	*CHN0154D 6. *	*MLD0306D 13. *	*IND0045D 13 *
46	CLN0219D	50.0	16	80.3	7.4	0.6	0.6	0.	49.7	1	31.	63.6	80.0	10.0	-3.	*IND0043D -1. *	*AFG0246D 2. *	*IND0045D 12 *
47	IND0045D	56.0	16	76.3	19.4	1.6	1.0	43.	42.2	2	136.	63.5	74.0	15.7	4.	*MLD0306D 5. *	*AFG0246D 13. *	*IND0043D 14 *
48	CHN0154D	62.0	16	84.2	40.1	2.5	1.6	3.	38.3	1	360.	63.8	79.0	34.3	3.	*IND0038A 5. *	*CHN0155D 9. *	*IND0044D 17 *
49	IND0037D	68.0	16	93.0	26.0	1.4	0.9	40.	43.2	2	110.	63.7	93.0	22.0	-1.	*BGD0220B 3. *	*BGD0220A 3. *	*CHN0155D 11 *
50	INS0028D	74.0	16	99.0	1.2	1.9	0.8	130.	42.4	1	128.	63.5	102.2	1.8	9.	*MLA0227D 12. *	*INS0030D 19. *	*CHN0154D 21 *
51	INS0030D	86.0	16	110.3	-7.5	1.3	0.7	163.	44.8	1	74.	63.5	105.8	-7.5	2.	*INS0028D 3. *	*INS0031A 13. *	*INS0032D 13 *
52	CHN0173A	92.0	16	116.0	27.1	1.2	0.7	105.	45.3	2	68.	63.7	114.1	24.6	5.	*CHN0179A 6. *	*INS0035B 13. *	*CHN0158A 19 *
53	INS0035B	98.0	16	128.1	-1.5	1.8	1.1	77.	41.3	2	169.	63.6	124.5	-1.9	9.	*PHL0285D 12. *	*CHN0173A 16. *	*INS0030D 22 *
54	KRE0286C	104.0	16	127.3	42.3	1.3	0.6	134.	44.8	2	80.	63.9	126.6	38.0	4.	*J 0111E 6. *	*INS0035B 14. *	*CHN0167A 15 *
55	AUS0008C	128.0	16	145.5	-21.3	2.7	1.8	120.	37.4	2	411.	63.5	149.0	-29.0	-1.	*AUS0013A -0. *	*AUS0015B 14. *	*AUS0015A 14

	1	2	3	4	5	6	7	8	9a	9b	10	11	12	13	14
56	AUS0013A	134.0	16	144.2 -38.3	1.5 0.8	45.	43.5	2	106.	63.7	142.2 -34.2	-5.	*AUS0008C -4.	*AUS0015B 5.	*AUS0015A 5
													*	*	*
57	NHB0128D	140.0	16	168.0 -16.5	1.0 0.6	95.	46.3	1	53.	63.6	166.9 -15.0	17.	*AUS0008C 23.	*AUS0013A 23.	*INS0035B 27
													*	*	*
58	SMO0057D	158.0	16	-172.0 -13.4	0.6 0.6	0.	48.7	2	31.	63.6	-172.5 -13.6	16.	*TON0215D 21.	*NZL0055D 23.	*WAL0102D 23

Canal **17** - Channel **17** - Canal **17**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
30	NIG0119E	-34.0	17	7.1	9.3	1.8	1.3	85.	40.7	1	203.	63.8	5.5	14.0	4.	*MLI0118E 5. *	*G 0027E 16. *	*LBY0280E 16 *
31	G 0027E	-28.0	17	-3.3	53.5	1.6	0.8	149.	42.9	1	132.	64.1	1.3	51.1	3.	*SUI0140E 8. *	*MLI0118E 9. *	*CTI0237D 12 *
32	MLI0118E	-28.0	17	-6.5	13.2	1.9	1.1	170.	41.0	2	178.	63.5	-2.5	23.3	-20.	*LBY0280E-16. *	*G 0027E-14. *	*AND0262D-11 *
33	LBY0280E	-22.0	17	15.3	29.3	1.8	1.7	127.	39.3	2	288.	63.9	25.0	20.0	-7.	*MLI0118E -0. *	*NIG0119E 0. *	*ALG0252D 0 *
34	SUI0140E	-16.0	17	8.1	46.4	1.0	0.8	171.	45.5	1	70.	64.0	8.5	47.8	3.	*G 0027E 7. *	*TCH0144D 11. *	*ZAI0323D 11 *
35	COG0235E	-10.0	17	14.4	-0.4	1.9	1.0	67.	41.5	1	159.	63.5	18.5	4.3	1.	*ZAI0323D 5. *	*TCD0143E 7. *	*NIG0119E 10 *
36	HNG0106E	-10.0	17	19.3	47.0	0.8	0.6	152.	47.4	2	46.	64.0	17.3	48.1	-1.	*SUI0140E 3. *	*S 0138E 7. *	*TCH0144D 8 *
37	RHS0135E	2.0	17	29.0	-18.3	1.3	0.8	87.	43.8	1	95.	63.6	32.8	-20.5	5.	*S 0138E 7. *	*MWI0308D 11. *	*COG0235E 18 *
38	S 0138E	2.0	17	16.0	61.0	1.1	0.9	144.	44.2	2	100.	64.2	13.3	55.3	2.	*DDR0216E 8. *	*G 0027E 8. *	*SUI0140E 9 *
39	SYR0229E	8.0	17	38.0	34.5	1.0	0.6	19.	46.6	1	53.	63.8	35.9	35.7	2.	*LBY0280E 6. *	*TUR0145D 6. *	*MWI0308D 13 *
40	PAK0283B	38.0	17	74.4	33.5	1.1	0.9	160.	44.0	1	98.	63.9	79.1	32.7	1.	*IND0038A 1. *	*CHN0154D 19. *	*IND0040A 21 *
41	IND0038A	56.0	17	75.5	33.2	1.3	0.9	33.	43.6	1	103.	63.7	72.5	35.9	-4.	*PAK0283B -3. *	*CHN0154D 4. *	*IND0040A 11 *
42	CHN0188A	62.0	17	101.5	25.5	1.6	0.9	120.	42.5	2	135.	63.9	97.5	24.0	4.	*BGD0220B 10. *	*IND0037D 10. *	*BRM0298A 14 *
43	IND0047A	68.0	17	93.0	10.4	1.5	0.8	95.	43.5	1	102.	63.5	93.8	14.8	4.	*BRM0298A 6. *	*IND0048A 16. *	*CHN0188A 17 *
44	BGD0220B	74.0	17	90.0	24.0	1.2	0.7	138.	45.0	2	71.	63.6	92.5	21.5	1.	*BRM0298A 7. *	*CHN0188A 7. *	*IND0037D 8 *
45	CHN0182A	80.0	17	108.4	35.1	1.1	0.7	112.	45.4	1	70.	63.8	109.6	31.8	2.	*CHN0188A 6. *	*CHN0159A 7. *	*J 0111E 13 *
46	INS0031A	86.0	17	110.5	-1.2	1.3	1.0	159.	43.3	2	106.	63.5	110.3	-3.0	13.	*INS0030D 15. *	*J 0111E 25. *	*AUS0005B 25 *
47	CHN0167A	92.0	17	125.0	43.4	1.8	0.6	151.	44.0	1	100.	64.0	125.7	40.6	4.	*J 0111E 5. *	*KRE0286C 15. *	*CHN0173A 19 *
48	AUS0005B	104.0	17	133.3	-18.4	2.5	1.3	80.	39.1	1	283.	63.6	135.6	-12.0	12.	*INS0036C 16. *	*J 0111E 19. *	*AUS0008C 23 *
49	J 0111E	110.0	17	134.4	31.5	3.4	2.9	46.	34.3	2	875.	63.7	141.9	45.5	11.	*CHN0167A 13. *	*KOR0112D 20. *	*AUS0005B 21 *
50	AUS0015B	134.0	17	146.5	-31.3	1.6	1.0	45.	42.2	1	139.	63.6	150.0	-36.5	2.	*AUS0013B 5. *	*AUS0013A 5. *	*AUS0005B 14 *
51	CKN0053C	152.0	17	-162.3	-11.0	1.3	0.6	30.	45.3	1	72.	63.9	-158.0	-9.0	12.	*NZL0055D 12. *	*AUS0015B 29. *	*SMO0057D 38 *
52	NZL0055D	158.0	17	173.0	-40.0	2.4	0.9	40.	40.9	1	194.	63.8	179.0	-37.6	15.	*CKN0053C 17. *	*AUS0015B 25. *	*AUS0005B 25 *

Canal **18** - Channel **18** - Canal **18**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
24	GHAC108E	-28.0	18	-1.3	7.5	1.5	1.0	101.	42.7	1	123.	63.6	-2.9	11.0	4.	*MLI0118E 8. *	*ALG0251E 13. *	*MLI0269E 13 *
25	ALG0251E	-22.0	18	0.6	31.5	3.2	1.5	6.	37.3	1	437.	63.7	9.0	35.5	8.	*LBY0280E 12. *	*GHA0108E 14. *	*TCD0143E 15 *
26	BEL0018E	-16.0	18	4.3	50.3	0.7	0.6	160.	48.0	2	40.	64.0	6.4	50.3	1.	*DDR0216E 6. *	*D 0087E 8. *	*SDN0232E 10 *
27	BUL0020E	-10.0	18	24.5	42.5	0.9	0.6	163.	46.9	1	51.	64.0	22.6	44.3	-3.	*TCD0143E -1. *	*ALG0251E 5. *	*ROU0136E 6 *
28	TCD0143E	-10.0	18	18.3	15.0	3.4	1.7	101.	36.7	2	494.	63.6	23.8	19.3	3.	*SDN0232E 6. *	*ROU0136E 10. *	*BUL0020E 12 *
29	DDR0216E	2.0	18	12.2	52.0	0.9	0.6	154.	46.9	1	51.	64.0	9.9	51.4	2.	*BEL0018E 4. *	*UGA0051E 11. *	*S 0138E 12 *
30	UGA0051E	2.0	18	32.1	1.4	1.5	0.9	65.	42.7	2	123.	63.6	34.0	4.3	3.	*ETH0092E 4. *	*DDR0216E 13. *	*TCD0143E 14 *
31	ETH0092E	14.0	18	40.0	10.0	2.5	1.5	108.	38.4	1	327.	63.6	39.0	3.3	3.	*UGA0051E 3. *	*MDG0236E 20. *	*TCD0143E 24 *
32	KWT0113E	20.0	18	47.4	29.2	0.6	0.6	0.	48.7	2	32.	63.7	48.2	28.3	13.	*ETH0092E 16. *	*MDG0236E 23. *	*IND0040A 25 *
33	MDG0236E	26.0	18	46.3	-18.5	2.7	1.1	64.	39.8	1	247.	63.6	49.0	-12.3	12.	*MYT0098E 14. *	*ETH0092E 21. *	*TCD0143E 26 *
34	IND0040A	56.0	18	73.0	24.4	1.8	1.3	44.	40.6	2	201.	63.6	73.5	30.0	2.	*IND0038B 6. *	*IND0038A 6. *	*IND0048A 16 *
35	CHN0185A	62.0	18	95.5	35.3	1.8	0.9	161.	41.9	1	157.	63.9	90.4	33.0	1.	*BRM0298A 2. *	*IND0048A 13. *	*IND0040A 13 *
36	IND0048A	68.0	18	86.0	25.0	1.5	0.9	164.	42.9	2	116.	63.6	88.6	28.2	-2.	*BRM0298A 1. *	*CHN0185A 5. *	*BGD0220C 6 *
37	BRM0298A	74.0	18	96.3	19.2	3.5	1.2	110.	38.1	1	354.	63.6	101.0	21.7	-0.	*CHN0159A 1. *	*CHN0188A 12. *	*BGD0220C 14 *
38	CHN0159A	80.0	18	109.3	27.0	1.8	1.4	101.	40.0	2	235.	63.7	109.5	33.1	2.	*CHN0158B 7. *	*CHN0185A 7. *	*CHN0182A 7 *
39	INS0036C	98.0	18	135.0	-5.1	2.0	1.4	85.	39.7	2	249.	63.7	142.5	-2.5	11.	*PHL0285E 13. *	*KOR0112D 18. *	*BRM0298A 22 *
40	KOR0112D	104.0	18	128.1	35.4	1.3	0.9	8.	43.6	2	106.	63.8	126.3	33.1	5.	*J 0111E 7. *	*CHN0159A 14. *	*INS0036C 15 *
41	AUS0013B	134.0	18	144.2	-38.3	1.5	0.8	45.	43.5	2	107.	63.8	142.2	-34.2	4.	*AUS0015B 5. *	*AUS0009A 11. *	*INS0036C 21 *

Canal **19** - Channel **19** - Canal **19**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
19	IRL0211E	-28.0	19	-7.5	53.2	0.8	0.6	62.	47.3	1	48.	64.1	-10.3	54.3	1.	*MLI0269E 3. *	*CTI0237E 9. *	*GHA0108E 11 *
20	MLI0269E	-28.0	19	-2.1	19.2	2.6	1.2	146.	39.3	2	272.	63.6	-12.0	13.8	-14.	*CAF0258E-11. *	*IRL0211E -7. *	*CTI0237E -5 *
21	D 0087E	-16.0	19	9.3	50.3	1.4	0.7	149.	44.4	1	93.	64.1	13.5	52.4	-0.	*SDN0232E 6. *	*TCH0144E 6. *	*FNL0103E 8 *
22	SDN0232E	-16.0	19	30.0	18.4	1.7	1.4	134.	40.4	2	224.	64.0	24.0	15.8	3.	*TCD0143E 7. *	*D 0087E 9. *	*ZAI0323E 13 *
23	CAF0258E	-10.0	19	-20.2	6.2	2.6	1.5	14.	38.2	1	330.	63.4	23.2	11.0	-21.	*SDN0232E-18. *	*TCD0143E-14. *	*ZAI0323E-12 *
24	ROU0136E	-10.0	19	24.3	45.2	1.3	0.8	171.	44.1	2	100.	64.1	28.5	43.7	-2.	*TCD0143E 0. *	*CAF0258E 5. *	*BUL0020E 8 *
25	FNL0103E	2.0	19	23.3	63.3	1.4	0.8	165.	43.8	2	114.	64.3	19.2	60.0	7.	*D 0087E 9. *	*DDR0216E 16. *	*ISL0050E 18 *
26	LBN0279E	8.0	19	36.0	34.0	0.6	0.6	0.	48.7	1	33.	63.8	35.4	33.7	10.	*TUR0145E 11. *	*ARS0003E 20. *	*SDN0232E 23 *
27	MYT0098E	26.0	19	45.0	-12.5	0.6	0.6	0.	48.7	2	30.	63.5	45.0	-12.8	10.	*MDG0236E 11. *	*REU0097E 18. *	*ZAI0323E 24 *
28	PAK0282A	38.0	19	67.5	26.3	1.2	0.6	143.	45.6	1	66.	63.8	68.3	28.7	4.	*IND0038B 5. *	*IND0040B 21. *	*IND0040A 21 *
29	IND0038B	56.0	19	75.5	33.2	1.3	0.9	33.	43.6	1	104.	63.7	73.9	30.0	5.	*IND0040B 9. *	*IND0040A 9. *	*PAK0282A 13 *
30	IND0047B	68.0	19	93.0	10.4	1.5	0.8	95.	43.5	1	103.	63.6	93.8	14.8	2.	*BRM0298B 6. *	*BRM0298A 6. *	*IND0048B 16 *
31	BGD0220C	74.0	19	90.0	24.0	1.2	0.7	138.	45.0	2	72.	63.6	92.5	21.5	2.	*BRM0298B 7. *	*BRM0298A 7. *	*IND0048B 10 *
32	CHN0158B	80.0	19	111.5	37.4	2.6	1.5	126.	38.5	1	349.	63.9	115.3	31.5	2.	*CHN0180A 4. *	*CHN0159B 9. *	*CHN0159A 9 *
33	INS0031B	86.0	19	110.5	-1.2	1.3	1.0	159.	43.3	2	107.	63.5	109.6	2.0	-1.	*CHN0180A -1. *	*PHL0285E 17. *	*CHN0158B 18 *
34	CHN0180A	92.0	19	113.2	13.2	3.4	1.9	86.	36.2	1	545.	63.5	119.0	19.2	-9.	*PHL0285E -9. *	*CHN0158B 13. *	*INS0031B 22 *
35	PHL0285E	98.0	19	122.0	11.1	2.9	1.6	102.	37.5	1	399.	63.6	122.0	21.0	-9.	*CHN0180A -9. *	*CHN0158B 15. *	*INS0036C 21 *
36	AUS0009A	128.0	19	147.1	-32.0	1.9	1.2	15.	40.7	1	202.	63.7	144.7	-36.1	6.	*AUS0007A 7. *	*AUS0013B 13. *	*PHL0285E 25 *
37	NRU0309D	134.0	19	166.3	-0.1	0.6	0.6	0.	48.7	1	31.	63.6	162.0	-3.0	-10.	*AUS0009A -7. *	*URS0080A -6. *	*AUS0013B 2 *
38	URS0080A	140.0	19	156.5	56.3	2.4	2.0	18.	37.4	1	469.	64.1	151.8	46.8	17.	*CHN0158B 18. *	*CHN0180A 26. *	*PHL0285E 26 *
39	TKL0058A	152.0	19	-172.2	-9.1	0.6	0.6	0.	48.7	1	32.	63.7	-172.1	-9.2	23.	*URS0080A 28. *	*AUS0009A 29. *	*NIU0054A 30 *

Canal **20** - Channel **20** - Canal **20**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
22	AND0262E	-28.0	20	1.3	42.3	0.6	0.6	0.	48.7	2	34.	64.0	1.3	42.0	4.	*CTI0237E 10. *	*MCD0116A 10. *	*ALG0252E 11 *
23	CTI0237E	-28.0	20	-5.3	7.3	1.6	1.2	102.	41.3	1	166.	63.5	-8.0	10.1	1.	*GUI0192A 6. *	*ALG0252E 6. *	*HVD0107A 10 *
24	ALG0252E	-22.0	20	1.5	25.0	3.5	2.1	162.	35.7	1	634.	63.7	9.5	30.0	5.	*TUN0150A 8. *	*ZAI0323E 13. *	*CTI0237E 13 *
25	HOL0213E	-16.0	20	5.0	51.3	0.7	0.6	165.	48.0	2	40.	64.1	6.6	53.7	-2.	*ZAI0323E 1. *	*TCH0144E 8. *	*D 0087E 8 *
26	ZAI0323E	-16.0	20	23.0	-3.3	3.5	3.5	0.	33.4	1	1099.	63.8	30.0	-12.0	9.	*ALG0252E 13. *	*HOL0213E 15. *	*D 0087E 21 *
27	TCH0144E	-10.0	20	17.1	49.1	1.3	0.6	167.	45.3	1	75.	64.1	12.1	50.3	-1.	*D 0087E 5. *	*AUT0016A 5. *	*HOL0213E 6 *
28	ISL0050E	2.0	20	-19.3	61.0	2.0	0.6	4.	43.5	1	121.	64.3	-6.2	62.3	9.	*NOR0120A 13. *	*FNL0103E 16. *	*TCH0144E 20 *
29	TUR0145E	8.0	20	34.1	38.5	2.4	0.9	165.	40.7	2	210.	63.9	42.7	41.5	0.	*URS0059A 3. *	*TGK0225A 8. *	*ARS0003E 8 *
30	ARS0003E	20.0	20	42.0	23.0	3.1	1.3	132.	38.2	2	351.	63.6	55.5	24.0	-4.	*QAT0247A -1. *	*ALG0252E 6. *	*ZAI0323E 6 *
31	REU0097E	26.0	20	55.1	-19.3	1.3	0.8	110.	44.1	1	92.	63.7	54.7	-15.7	4.	*ZAI0323E 7. *	*MAU0242A 8. *	*ARS0003E 19 *
32	IND0040B	56.0	20	73.0	24.4	1.8	1.3	44.	40.6	2	202.	63.6	73.5	30.0	2.	*IND0038C 6. *	*IND0038B 6. *	*IND0048B 16 *
33	IND0048B	68.0	20	86.0	25.0	1.5	0.9	164.	42.9	2	117.	63.6	88.6	28.2	-2.	*BRM0298B 1. *	*BGD0220D 6. *	*BGD0220C 6 *
34	BRM0298B	74.0	20	96.3	19.2	3.5	1.2	110.	38.1	1	356.	63.6	101.0	21.7	0.	*CHN0159B 1. *	*BGD0220D 14. *	*BGD0220C 14 *
35	CHN0159B	80.0	20	109.3	27.0	1.8	1.4	101.	40.0	2	236.	63.8	115.3	31.5	4.	*CHN0176A 7. *	*CHN0158B 8. *	*BRM0298B 20 *
36	INS0035C	98.0	20	128.1	-1.5	1.8	1.1	77.	41.3	2	171.	63.6	128.5	2.5	11.	*PHL0285E 12. *	*KRE0286D 21. *	*CHN0159B 25 *
37	KRE0286D	104.0	20	127.3	42.3	1.3	0.6	134.	44.8	2	81.	63.9	126.6	38.0	8.	*CHN0159B 11. *	*INS0035C 14. *	*CHN0168A 20 *
38	AUS0007A	128.0	20	145.0	-38.0	1.3	1.3	0.	42.0	2	153.	63.8	142.2	-34.0	5.	*AUS0009B 8. *	*AUS0009A 8. *	*BRM0298B 25 *
39	NIU0054A	152.0	20	-169.5	-19.0	0.6	0.6	0.	48.7	2	33.	63.8	-169.9	-19.0	18.	*CKN0053D 19. *	*TKL0058A 31. *	*AUS0007A 32 *

Canal **21** - Channel **21** - Canal **21**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
19	GUI0192A	-34.0	21	-11.1	10.1	1.4	1.0	141.	42.8	1	119.	63.6	-8.6	8.6	1.	*HVD0107A	4.	*CTI0237E	8.	*SRL0259A	11
20	MCD0116A	-34.0	21	7.2	43.4	0.6	0.6	0.	48.7	2	35.	64.2	3.0	43.5	-5.	*AND0262E	0.	*E 0129A	3.	*AUT0016A	4
21	HVD0107A	-28.0	21	-1.5	12.0	1.5	1.2	15.	41.8	2	152.	63.6	-5.0	10.0	0.	*GUI0192A	2.	*CTI0237E	8.	*POR0133A	11
22	POR0133A	-28.0	21	-8.0	39.3	1.0	0.6	101.	46.6	1	54.	63.9	-8.3	42.1	2.	*E 0129A	8.	*HVD0107A	9.	*CTI0237E	10
23	TUN0150A	-22.0	21	9.2	34.0	1.3	0.6	115.	45.2	2	74.	63.9	12.0	35.3	3.	*ALG0252E	10.	*GRC0105A	11.	*SDN0230A	11
24	AUT0016A	-16.0	21	12.1	47.3	1.1	0.7	167.	45.5	1	72.	64.1	17.1	48.0	-2.	*TCH0144E	5.	*MCD0116A	5.	*URS0059A	6
25	SDN0230A	-16.0	21	29.0	7.4	1.9	0.9	128.	42.0	2	155.	63.9	36.0	4.6	3.	*TGK0225A	8.	*ZAI0323E	9.	*AUT0016A	11
26	ZMB0314A	-10.0	21	-28.2	-12.3	2.2	1.3	50.	39.5	1	252.	63.5	28.5	-8.0	-27.	*TGK0225A	-25.	*ZAI0323E	-23.	*SDN0230A	-8
27	GRC0105A	-4.0	21	24.5	38.1	1.6	0.9	159.	42.6	1	137.	63.9	26.6	41.5	2.	*URS0059A	3.	*YUG0148A	10.	*TUR0145E	16
28	NOR0120A	2.0	21	14.0	64.3	1.5	0.9	18.	42.7	2	145.	64.3	29.0	69.0	0.	*URS0059A	1.	*SWZ0313A	16.	*ISL0050E	17
29	SWZ0313A	2.0	21	30.5	-26.2	0.6	0.6	0.	48.7	1	32.	63.8	31.9	-26.5	8.	*NOR0120A	10.	*LSO0305A	20.	*TGK0225A	21
30	JOR0224A	8.0	21	36.1	31.4	0.9	0.6	130.	47.1	1	47.	63.8	34.0	35.0	-8.	*URS0059A	-4.	*GRC0105A	-4.	*TGK0225A	-1
31	TGK0225A	8.0	21	34.3	-5.5	2.2	1.6	121.	38.8	2	304.	63.6	30.5	-1.0	2.	*RRW0310A	5.	*YMS0267A	8.	*SDN0230A	10
32	AFI0099A	14.0	21	42.3	11.2	0.6	0.6	0.	48.7	1	31.	63.6	43.5	12.5	0.	*URS0059A	2.	*QAT0247A	13.	*YEM0266A	13
33	URS0059A	14.0	21	36.0	47.0	3.7	1.5	153.	36.8	2	527.	64.0	22.0	58.9	-1.	*NOR0120A	-1.	*AUT0016A	15.	*AFI0099A	15
34	QAT0247A	20.0	21	51.1	25.1	0.6	0.6	0.	48.7	1	32.	63.8	51.1	26.2	6.	*YEM0266A	10.	*ARS0003E	14.	*URS0059A	14
35	MAU0242A	26.0	21	60.0	-19.0	1.3	1.3	0.	42.0	2	152.	63.8	56.8	-21.2	7.	*REU0097E	7.	*TGK0225A	24.	*SDN0230A	25
36	IND0038C	56.0	21	75.5	33.2	1.3	0.9	33.	43.6	1	105.	63.8	72.5	35.9	5.	*URS0059A	11.	*IND0040C	11.	*IND0040B	12
37	IND0047C	68.0	21	93.0	10.4	1.5	0.8	95.	43.5	1	103.	63.6	93.8	14.8	2.	*BRM0298C	6.	*BRM0298B	6.	*IND0048C	16
38	BGD0220D	74.0	21	90.0	24.0	1.2	0.7	138.	45.0	2	72.	63.6	92.5	21.5	2.	*BRM0298C	7.	*BRM0298B	7.	*IND0048C	10
39	CHN0176A	80.0	21	114.1	33.5	1.0	0.6	149.	46.3	1	59.	63.9	110.2	34.5	4.	*CHN0159C	8.	*CHN0159B	8.	*CHN0168A	19
40	INS0031C	86.0	21	110.5	-1.2	1.3	1.0	159.	43.3	2	107.	63.6	109.6	2.0	15.	*BGD0220D	22.	*PNG0271A	23.	*URS0079A	23
41	CHN0168A	92.0	21	125.0	47.3	2.3	0.8	158.	41.6	1	179.	64.1	135.0	48.4	-1.	*URS0079A	0.	*CHN0175A	8.	*CHN0176A	20
42	AUS0009B	128.0	21	147.1	-32.0	1.9	1.2	15.	40.7	1	203.	63.7	144.7	-36.1	4.	*AUS0007B	7.	*AUS0007A	7.	*PNG0271A	20
43	PNG0271A	134.0	21	148.0	-6.4	2.8	2.0	155.	36.7	2	479.	63.5	141.0	-2.6	15.	*INS0036D	19.	*URS0079A	21.	*AUS0009B	22
44	URS0079A	140.0	21	138.2	58.4	2.6	1.5	62.	38.3	1	385.	64.2	130.9	44.8	-1.	*CHN0168A	-1.	*KRE0286D	17.	*PNG0271A	20
45	CKN0053D	152.0	21	-162.3	-11.0	1.3	0.6	30.	45.3	1	73.	63.9	-165.0	-12.5	20.	*NIU0054A	24.	*PNG0271A	26.	*AUS0009B	27

Canal **22** - Channel **22** - Canal **22**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
28	LIE0253A	-34.0	22	9.3	47.0	0.8	0.8	0.	46.2	1	64.	64.2	9.3	47.1	3.	*YUG0148A 8. *	*E 0129A 8. *	*LUX0114A 10 *
29	SRL0259A	-34.0	22	-11.5	8.3	0.6	0.6	0.	48.7	2	31.	63.6	-11.7	10.0	-1.	*MTN0223A 1. *	*GUI0192A 5. *	*LIE0253A 10 *
30	E 0129A	-28.0	22	-3.0	39.4	1.9	1.0	164.	41.4	2	177.	63.9	3.3	42.3	-4.	*LIE0253A -2. *	*MCO0116A 5. *	*LUX0114A 8 *
31	TGO0226A	-28.0	22	0.5	8.4	1.2	0.6	104.	45.7	1	63.	63.6	-0.2	11.1	-3.	*MTN0223A -1. *	*HVO0107A 8. *	*E 0129A 8 *
32	MTN0223A	-22.0	22	-10.0	20.0	2.5	2.2	9.	36.8	1	470.	63.6	-15.7	24.0	7.	*MRC0209A 9. *	*TGO0226A 16. *	*NMB0025A 19 *
33	LUX0114A	-16.0	22	5.4	49.5	0.6	0.6	0.	48.7	2	35.	64.1	8.1	48.2	-8.	*LIE0253A -4. *	*YUG0148A -0. *	*E 0129A 2 *
34	NMB0025A	-16.0	22	17.4	-21.0	2.2	1.6	54.	38.6	1	329.	63.8	25.0	-17.6	3.	*BOT0297A 5. *	*MTN0223A 13. *	*LUX0114A 14 *
35	CME0300A	-10.0	22	12.4	5.4	2.5	1.2	93.	39.6	2	251.	63.6	14.2	13.2	9.	*SDN0231A 15. *	*YUG0148A 18. *	*NMB0025A 19 *
36	YUG0148A	-4.0	22	18.3	43.5	1.6	0.6	153.	44.3	2	92.	64.0	13.4	46.4	-0.	*LIE0253A 1. *	*E 0129A 11. *	*CME0300A 13 *
37	ISL0049A	2.0	22	-19.2	64.5	1.0	0.6	4.	46.5	1	62.	64.4	-13.5	65.1	10.	*NOR0120A 16. *	*RRW0310A 16. *	*DNK0089A 17 *
38	RRW0310A	2.0	22	30.0	-1.2	0.6	0.6	0.	48.7	2	31.	63.6	29.8	-4.5	-8.	*TGK0225A -6. *	*ISL0049A 0. *	*YMS0267A 1 *
39	LSO0305A	8.0	22	28.0	-29.3	0.6	0.6	0.	48.7	1	32.	63.7	29.5	-29.4	4.	*NMB0025A 8. *	*YMS0267A 9. *	*SWZ0313A 11 *
40	YMS0267A	8.0	22	47.1	15.4	1.6	1.0	25.	42.4	2	140.	63.8	52.5	18.7	-4.	*YEM0266A -3. *	*TGK0225A 8. *	*OMA0123A 13 *
41	URS0064A	14.0	22	45.0	41.1	1.5	0.6	156.	44.7	1	85.	64.0	50.3	40.3	3.	*KEN0249A 9. *	*URS0059A 9. *	*YEM0266A 11 *
42	YEM0266A	20.0	22	46.3	17.3	2.9	2.1	84.	36.3	2	547.	63.7	47.5	16.8	-1.	*YMS0267A -1. *	*OMA0123A 16. *	*QAT0247A 26 *
43	IND0040C	56.0	22	73.0	24.4	1.8	1.3	44.	40.6	2	204.	63.6	73.5	30.0	2.	*IND0038D 6. *	*IND0038C 6. *	*YEM0266A 14 *
44	CHN0183A	62.0	22	104.5	38.5	1.2	0.6	134.	45.6	1	71.	64.1	106.0	35.4	5.	*CHN0159C 7. *	*BRM0298C 12. *	*CHN0158C 17 *
45	IND0048C	68.0	22	86.0	25.0	1.5	0.9	164.	42.9	2	118.	63.7	88.6	28.2	-2.	*BRM0298C 1. *	*BGD0220E 6. *	*BGD0220D 6 *
46	BRM0298C	74.0	22	96.3	19.2	3.5	1.2	110.	38.1	1	359.	63.6	101.0	21.7	0.	*CHN0159C 1. *	*BGD0220E 14. *	*BGD0220D 14 *
47	CHN0159C	80.0	22	109.3	27.0	1.8	1.4	101.	40.0	2	238.	63.8	109.5	33.1	2.	*CHN0158C 7. *	*CHN0183A 7. *	*CHN0176A 9 *
48	CHN0175A	92.0	22	120.2	22.3	1.4	0.8	58.	43.7	1	100.	63.7	118.9	23.5	4.	*CHN0159C 6. *	*CHN0168A 9. *	*INS0036D 21 *
49	INS0036D	98.0	22	135.0	-5.1	2.0	1.4	85.	39.7	2	253.	63.8	142.5	-2.5	10.	*PNG0271B 15. *	*PNG0271A 15. *	*KOR0112E 18 *
50	KOR0112E	104.0	22	128.1	35.4	1.3	0.9	8.	43.6	2	107.	63.9	126.3	33.1	9.	*CHN0159C 14. *	*CHN0175A 14. *	*INS0036D 15 *
51	AUS0007B	128.0	22	145.0	-38.0	1.3	1.3	0.	42.0	2	154.	63.8	142.2	-34.0	5.	*AUS0009C 8. *	*AUS0009B 8. *	*INS0036D 25 *

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
25	LBR0244A	-34.0	23	-9.2	0.2	0.9	0.6	123.	46.9	1	47.	63.6	-10.2	8.5	-17.	*SRL0259A -14. *	*SEN0222A -9. *	*LIE0253A -6 *
26	AZR0134A	-28.0	23	-23.2	36.1	2.5	0.7	158.	41.9	1	155.	63.8	-16.9	32.5	2.	*MRC0209A 7. *	*NGR0115A 8. *	*DAH0233A 12 *
27	DAH0233A	-28.0	23	2.1	9.1	1.1	0.6	87.	45.6	2	65.	63.7	1.0	10.4	2.	*AZR0134A 7. *	*TGO0226A 8. *	*NGR0115A 9 *
28	MRC0209A	-22.0	23	-8.4	29.4	2.4	1.3	43.	39.4	2	271.	63.7	-6.0	36.0	3.	*E 0129A 5. *	*SDN0231A 12. *	*MTN0223A 14 *
29	I 0082A	-16.0	23	12.2	40.4	2.3	1.0	142.	40.6	1	220.	64.0	6.6	45.1	0.	*SDN0231A 5. *	*F 0093A 7. *	*MRC0209A 7 *
30	SDN0231A	-16.0	23	30.0	12.4	2.0	1.4	146.	39.8	2	261.	64.0	34.0	8.5	1.	*I 0082A 5. *	*KEN0249A 6. *	*F 0093A 10 *
31	BOT0297A	-10.0	23	23.2	-22.1	1.9	1.2	42.	40.8	1	203.	63.8	21.0	-18.4	2.	*NMB0025A 5. *	*AGL0295A 7. *	*CME0300A 17 *
32	CYP0086A	-4.0	23	33.2	35.0	0.6	0.6	0.	48.7	1	34.	64.0	33.8	35.3	2.	*IRQ0256A 3. *	*EGY0026A 11. *	*I 0082A 16 *
33	DNK0089A	2.0	23	12.1	57.1	1.2	0.6	177.	45.7	2	71.	64.2	12.0	54.6	5.	*I 0082A 8. *	*POL0132A 10. *	*URS0061A 16 *
34	IRQ0256A	8.0	23	43.4	33.0	1.8	0.9	154.	42.1	1	155.	64.0	37.5	33.3	3.	*CYP0086A 4. *	*KEN0249A 14. *	*AFS0021A 15 *
35	KEN0249A	14.0	23	37.5	0.4	2.1	1.4	95.	39.4	1	263.	63.6	41.9	3.9	4.	*SDN0231A 8. *	*OMA0123A 12. *	*URS0061A 12 *
36	URS0061A	14.0	23	24.4	56.5	1.8	0.6	5.	47.4	2	47.	64.2	21.0	56.8	-2.	*DNK0089A -1. *	*KEN0249A 5. *	*I 0082A 11 *
37	OMA0123A	20.0	23	55.5	21.0	1.5	1.1	98.	42.0	1	152.	63.8	52.0	19.0	4.	*YEM0266A 8. *	*ARS0275A 9. *	*SDN0231A 13 *
38	PAK0282B	38.0	23	67.5	26.3	1.2	0.6	143.	45.6	1	67.	63.8	68.3	28.7	3.	*IND0038D 5. *	*OMA0123A 11. *	*IRQ0256A 19 *
39	IND0038D	56.0	23	75.5	33.2	1.3	0.9	33.	43.5	1	105.	63.8	73.9	30.0	5.	*IND0040D 9. *	*IND0040C 9. *	*PAK0282B 13 *
40	IND0047D	68.0	23	93.0	10.4	1.5	0.8	95.	43.5	1	104.	63.6	93.8	14.8	2.	*BRM0298D 6. *	*BRM0298C 6. *	*IND0048D 16 *
41	BGD0220E	74.0	23	90.0	24.0	1.2	0.7	138.	45.0	2	73.	63.6	92.5	21.5	2.	*BRM0298D 7. *	*BRM0298C 7. *	*IND0048D 11 *
42	CHN0158C	80.0	23	111.5	37.4	2.6	1.5	126.	38.5	1	354.	64.0	115.3	31.5	5.	*CHN0177A 8. *	*CHN0159C 9. *	*IND0047D 22 *
43	INS0031D	86.0	23	110.5	-1.2	1.3	1.0	159.	43.3	2	108.	63.6	109.6	2.0	14.	*CHN0158C 18. *	*BGD0220E 22. *	*PNG0271B 23 *
44	AUS0009C	128.0	23	147.1	-32.0	1.9	1.2	15.	40.7	1	204.	63.8	144.7	-36.1	4.	*AUS0007C 7. *	*AUS0007B 7. *	*PNG0271B 20 *
45	PNG0271B	134.0	23	148.0	-6.4	2.8	2.0	155.	36.7	2	482.	63.5	141.0	-2.6	15.	*INS0036D 19. *	*URS0080B 21. *	*AUS0009C 22 *
46	URS0080B	140.0	23	156.5	56.3	2.4	2.0	18.	37.4	1	475.	64.2	151.8	46.8	17.	*CHN0158C 18. *	*PNG0271B 23. *	*AUS0009C 33 *
47	TKL0058B	152.0	23	-172.2	-9.1	0.6	0.6	0.	48.7	1	32.	63.8	-172.1	-9.2	22.	*PNG0271B 28. *	*URS0080B 28. *	*AUS0009C 29 *

Canal **24** - Channel **24** - Canal **24**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
24	SEN0222A	-34.0	24	-14.4	13.4	1.2	0.9	139.	44.0	2	91.	63.6	-14.7	17.7	3.	*CNR0130A	9.	*SMR0311A	10.	*MCD0116B	10
25	SMR0311A	-34.0	24	12.1	43.3	0.6	0.6	0.	48.7	1	36.	64.3	12.1	43.3	3.	*F 0093A	6.	*MCD0116B	12.	*SEN0222A	14
26	CNR0130A	-28.0	24	-15.4	28.2	1.1	0.6	2.	46.2	2	56.	63.7	-13.0	27.9	0.	*NGR0115A	4.	*MRC0209A	7.	*HVO0107B	9
27	NGR0115A	-28.0	24	8.1	16.4	2.4	2.0	56.	37.4	1	444.	63.8	2.1	13.5	4.	*HVO0107B	9.	*AZR0134A	10.	*DAH0233A	12
28	AGL0295A	-16.0	24	16.3	-12.3	2.5	1.9	71.	37.3	1	440.	63.7	23.0	-17.5	2.	*BOT0297A	6.	*F 0093A	7.	*AFS0021A	10
29	F 0093A	-16.0	24	3.1	45.5	2.3	0.9	150.	41.1	2	198.	64.0	9.5	41.2	-3.	*SMR0311A	0.	*AGL0295A	4.	*I 0082A	8
30	ALB0296A	-10.0	24	19.5	41.1	0.6	0.6	0.	48.7	1	34.	64.0	19.8	42.6	0.	*F 0093A	8.	*I 0082A	8.	*GRC0105B	9
31	STP0241A	-10.0	24	6.4	0.5	0.6	0.6	0.	48.7	2	30.	63.5	7.4	1.7	5.	*AGL0295A	11.	*NGR0115A	12.	*EGY0026A	12
32	EGY0026A	-4.0	24	30.3	27.5	2.5	1.6	135.	38.1	2	377.	63.9	34.5	31.7	2.	*ARS0275A	5.	*NGR0115A	13.	*CYP0086A	13
33	BDI0270A	2.0	24	29.2	-3.2	0.6	0.6	0.	48.7	2	31.	63.6	29.5	-4.2	4.	*TGK0225B	7.	*AGL0295A	10.	*POL0132A	12
34	POL0132A	2.0	24	19.2	52.0	1.4	0.6	158.	45.0	1	82.	64.1	20.0	49.2	4.	*SMR0311A	7.	*F 0093A	13.	*NOR0120B	17
35	AFS0021A	8.0	24	24.1	-28.1	2.9	1.4	30.	38.1	1	368.	63.7	24.0	-23.0	5.	*AGL0295A	6.	*BOT0297A	16.	*IRQ0256A	21
36	URS0065A	14.0	24	33.2	63.6	1.0	0.6	160.	46.3	1	65.	64.4	37.8	61.5	5.	*URS0059B	9.	*KEN0249A	11.	*URS0061A	15
37	ARS0275A	20.0	24	46.3	25.4	3.6	1.2	145.	37.9	2	387.	63.8	47.5	6.0	-9.	*OMA0123A	-4.	*AFS0021A	-0.	*EGY0026A	3
38	IND0040D	56.0	24	73.0	24.4	1.8	1.3	44.	40.6	2	205.	63.7	73.5	30.0	5.	*IND0038D	6.	*IND0048D	16.	*EGY0026A	18
39	IND0048D	68.0	24	86.0	25.0	1.5	0.9	164.	42.9	2	119.	63.7	88.6	28.2	-1.	*BRM0298D	1.	*BGD0220E	6.	*IND0040D	10
40	BRM0298D	74.0	24	96.3	19.2	3.5	1.2	110.	38.1	1	361.	63.7	97.5	28.3	7.	*IND0048D	11.	*URS0076A	12.	*BGD0220E	16
41	CHN0177A	80.0	24	112.2	30.4	1.0	0.6	155.	45.9	2	63.	63.9	109.2	29.1	6.	*CHN0158C	8.	*BRM0298D	16.	*IND0048D	20
42	CHN0166A	92.0	24	121.0	41.5	1.4	0.6	150.	45.1	1	78.	64.0	123.8	43.5	-3.	*KRE0286E	-2.	*URS0077A	11.	*CHN0158C	16
43	INS0035D	98.0	24	128.1	-1.5	1.8	1.1	77.	41.3	2	174.	63.7	128.5	2.5	17.	*KRE0286E	21.	*URS0077A	25.	*BRM0298D	26
44	KRE0286E	104.0	24	127.3	42.3	1.3	0.6	134.	44.8	2	82.	64.0	126.6	38.0	-1.	*CHN0166A	-0.	*INS0035D	14.	*URS0077A	16
45	URS0077A	110.0	24	113.4	59.1	2.1	1.8	31.	38.5	1	378.	64.3	117.8	49.4	6.	*CHN0166A	8.	*KRE0286E	12.	*CHN0158C	19
46	AUS0007C	128.0	24	145.0	-38.0	1.3	1.3	0.	42.0	2	155.	63.9	142.2	-34.0	8.	*AUS0009C	8.	*BRM0298D	25.	*INS0035D	25
47	NIU0054B	152.0	24	-169.5	-19.0	0.6	0.6	0.	48.7	2	33.	63.9	-169.9	-19.0	28.	*TKL0058B	31.	*AUS0007C	32.	*URS0077A	36

Canal **25** - Channel **25** - Canal **25**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
25	GUI0192B	-34.0	25	-11.1	10.1	1.4	1.0	141.	42.8	1	121.	63.6	-8.6	8.6	2.	*HVO0107B	4.	*SRL0259B	11.	*SEN0222A	16.
26	MCG0116B	-34.0	25	7.2	43.4	0.6	0.6	0.	48.7	2	36.	64.2	3.0	43.5	-3.	*E 0129B	3.	*AUT0016B	4.	*LIE0253B	4.
27	HVO0107B	-28.0	25	-1.5	12.0	1.5	1.2	15.	41.8	2	154.	63.7	-5.0	10.0	0.	*GUI0192B	2.	*POR0133B	11.	*E 0129B	11
28	POR0133B	-28.0	25	-8.0	39.3	1.0	0.6	101.	46.6	1	55.	63.9	-8.3	42.1	3.	*E 0129B	8.	*HVO0107B	9.	*NGR0115A	9.
29	TUN0150B	-22.0	25	9.2	34.0	1.3	0.6	115.	45.2	2	75.	64.0	12.0	35.3	4.	*GRC0105B	11.	*F 0093A	12.	*SDN0230B	12
30	AUT0016B	-16.0	25	12.1	47.3	1.1	0.7	167.	45.5	1	73.	64.1	17.1	48.0	-1.	*MCG0116B	5.	*URS0059B	6.	*SDN0230B	6.
31	SDN0230B	-16.0	25	29.0	7.4	1.9	0.9	128.	42.0	2	157.	64.0	36.0	4.6	4.	*TGK0225B	8.	*F 0093A	10.	*AUT0016B	11
32	ZMB0314B	-10.0	25	-28.2	-12.3	2.2	1.3	50.	39.5	1	255.	63.6	28.5	-8.0	-26.	*TGK0225B	-25.	*AGL0295A	-17.	*SDN0230B	-8
33	GRC0105B	-4.0	25	24.5	38.1	1.6	0.9	159.	42.6	1	139.	64.0	26.6	41.5	1.	*URS0059B	3.	*YUG0148B	10.	*EGY0026A	13
34	NOR0120B	2.0	25	14.0	64.3	1.5	0.9	18.	42.7	2	147.	64.4	29.0	69.0	-0.	*URS0059B	1.	*URS0066A	14.	*URS0065A	16
35	SWZ0313B	2.0	25	30.5	-26.2	0.6	0.6	0.	48.7	1	33.	63.8	31.9	-26.5	5.	*AFS0021A	8.	*NOR0120B	10.	*LSO0305B	20.
36	JOR0224B	8.0	25	36.1	31.4	0.9	0.6	130.	47.1	1	47.	63.9	34.0	35.0	-8.	*URS0059B	-4.	*GRC0105B	-4.	*TGK0225B	-1
37	TGK0225B	8.0	25	34.3	-5.5	2.2	1.6	121.	38.8	2	308.	63.6	30.5	-1.0	1.	*RRW0310B	5.	*YMS0267B	8.	*BDI0270A	9.
38	AFI0099B	14.0	25	42.3	11.2	0.6	0.6	0.	48.7	1	32.	63.7	43.5	12.5	0.	*URS0059B	2.	*QAT0247B	13.	*YEM0266B	13.
39	URS0059B	14.0	25	36.0	47.0	3.7	1.5	153.	36.8	2	534.	64.1	22.0	58.9	-2.	*NOR0120B	-1.	*URS0065A	11.	*AUT0016B	15
40	QAT0247B	20.0	25	51.1	25.1	0.6	0.6	0.	48.7	1	33.	63.8	51.1	26.2	5.	*ARS0275A	9.	*YEM0266B	10.	*URS0059B	14
41	MAU0242B	26.0	25	60.0	-19.0	1.3	1.3	0.	42.0	2	154.	63.8	60.0	-15.0	17.	*URS0059B	24.	*TGK0225B	24.	*SDN0230B	25
42	URS0066A	44.0	25	65.2	45.5	3.7	2.0	174.	35.6	1	706.	64.0	53.9	37.3	4.	*URS0059B	5.	*URS0067A	14.	*URS0064B	22
43	URS0076A	74.0	25	99.2	64.1	1.4	0.6	165.	45.0	1	88.	64.4	104.4	58.7	-13.	*MNG0248A	-13.	*URS0066A	2.	*BRM0298D	4
44	URS0079B	140.0	25	138.2	58.4	2.6	1.5	62.	38.3	1	390.	64.2	128.4	73.3	2.	*URS0076A	2.	*URS0077A	18.	*MNG0248A	33

Canal **26** - Channel **26** - Canal **26**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
21	LIE0253B	-34.0	26	9.3	47.0	0.8	0.8	0.	46.2	1	65.	64.3	9.3	47.1	3.	*YUG0148B	8.	*E 0129B	8.	*LUX0114B	10
22	SRL0259B	-34.0	26	-11.5	8.3	0.6	0.6	0.	48.7	2	31.	63.6	-11.7	10.0	-1.	*MTN0223B	1.	*GUI0192B	5.	*LIE0253B	10
23	E 0129B	-28.0	26	-3.0	39.4	1.9	1.0	164.	41.4	2	180.	64.0	3.3	42.3	-4.	*LIE0253B	-2.	*MCO0116B	5.	*LUX0114B	8
24	TGO0226B	-28.0	26	0.5	8.4	1.2	0.6	104.	45.7	1	63.	63.7	-0.2	11.1	-3.	*MTN0223B	-1.	*HVO0107B	8.	*E 0129B	8
25	MTN0223B	-22.0	26	-10.0	20.0	2.5	2.2	9.	36.8	1	476.	63.6	-15.7	24.0	7.	*MRC0209B	9.	*TGO0226B	16.	*NMB0025B	19
26	LUX0114B	-16.0	26	5.4	49.5	0.6	0.6	0.	48.7	2	35.	64.1	8.1	48.2	-8.	*LIE0253B	-4.	*YUG0148B	-0.	*E 0129B	2
27	NMB0025B	-16.0	26	17.4	-21.0	2.2	1.6	54.	38.6	1	334.	63.9	25.0	-17.6	3.	*BOT0297B	5.	*MTN0223B	13.	*LUX0114B	14
28	CME0300B	-10.0	26	12.4	5.4	2.5	1.2	93.	39.6	2	254.	63.6	14.2	13.2	9.	*SDN0231B	15.	*YUG0148B	18.	*NMB0025B	19
29	YUG0148B	-4.0	26	18.3	43.5	1.6	0.6	153.	44.3	2	94.	64.0	13.4	46.4	-0.	*LIE0253B	1.	*E 0129B	11.	*CME0300B	13
30	ISL0049B	2.0	26	-19.2	64.5	1.0	0.6	4.	46.5	1	63.	64.4	-13.5	65.1	10.	*NOR0120B	16.	*RRW0310B	16.	*DNK0089B	17
31	RRW0310B	2.0	26	30.0	-1.2	0.6	0.6	0.	48.7	2	32.	63.7	29.8	-4.5	-8.	*TGK0225B	-6.	*ISL0049B	0.	*YMS0267B	1
32	LSO0305B	8.0	26	28.0	-29.3	0.6	0.6	0.	48.7	1	32.	63.8	29.5	-29.4	4.	*NMB0025B	8.	*YMS0267B	9.	*SWZ0313B	11
33	YMS0267B	8.0	26	47.1	15.4	1.6	1.0	25.	42.4	2	142.	63.9	52.5	18.7	-4.	*YEM0266B	-3.	*TGK0225B	8.	*OMA0123B	13
34	URS0064B	14.0	26	45.0	41.1	1.5	0.6	156.	44.7	1	86.	64.1	50.3	40.3	3.	*KEN0249B	9.	*URS0059B	9.	*YEM0266B	11
35	YEM0266B	20.0	26	46.3	17.3	2.9	2.1	84.	36.3	2	554.	63.7	47.5	16.8	-1.	*YMS0267B	-1.	*OMA0123B	16.	*QAT0247B	26
36	URS0067A	44.0	26	65.1	61.4	2.7	1.3	179.	38.8	2	362.	64.4	74.3	53.5	3.	*URS0066A	6.	*MNG0248A	10.	*URS0068A	14
37	MNG0248A	74.0	26	102.4	46.5	3.1	1.2	173.	38.5	1	362.	64.1	98.8	51.9	-13.	*URS0074A	-13.	*URS0076A	-3.	*URS0078A	2
38	URS0078A	110.0	26	107.2	53.4	1.7	0.7	11.	43.5	1	116.	64.2	107.8	50.0	0.	*MNG0248A	0.	*URS0066A	23.	*URS0067A	24

Canal **27** - Channel **27** - Canal **27**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
19	LBR0244B	-34.0	27	-9.2	0.2	0.9	0.6	123.	46.9	1	48.	63.6	-10.2	8.5	-17.	*SRL0259B-14. *	*SEN0222B -9. *	*LIE0253B -6 *
20	AZR0134B	-28.0	27	-23.2	36.1	2.5	0.7	158.	41.9	1	157.	63.8	-16.9	32.5	2.	*MRC0209B 7. *	*NGR0115B 8. *	*DAH0233B 12 *
21	DAH0233B	-28.0	27	2.1	9.1	1.1	0.6	87.	45.6	2	66.	63.7	1.0	10.4	2.	*AZR0134B 7. *	*TGO0226B 8. *	*NGR0115B 9 *
22	MRC0209B	-22.0	27	-8.4	29.4	2.4	1.3	43.	39.4	2	274.	63.8	-6.0	36.0	3.	*E 0129B 5. *	*SDN0231B 12. *	*MTN0223B 14 *
23	I 0082B	-16.0	27	12.2	40.4	2.3	1.0	142.	40.6	1	223.	64.0	6.6	45.1	0.	*SDN0231B 5. *	*F 0093B 7. *	*MRC0209B 7 *
24	SDN0231B	-16.0	27	30.0	12.4	2.0	1.4	146.	39.8	2	264.	64.0	34.0	8.5	1.	*I 0082B 5. *	*KEN0249B 6. *	*F 0093B 10 *
25	BOT0297B	-10.0	27	23.2	-22.1	1.9	1.2	42.	40.8	1	205.	63.9	21.0	-18.4	3.	*NMB0025B 5. *	*AGL0295B 7. *	*CME0300B 17 *
26	CYP0086B	-4.0	27	33.2	35.0	0.6	0.6	0.	48.7	1	35.	64.1	33.8	35.3	2.	*IRQ0256B 4. *	*EGY0026B 11. *	*I 0082B 16 *
27	DNK0089B	2.0	27	12.1	57.1	1.2	0.6	177.	45.7	2	72.	64.3	12.0	54.6	5.	*I 0082B 8. *	*POL0132B 10. *	*URS0061B 16 *
28	IRQ0256B	8.0	27	43.4	33.0	1.8	0.9	154.	42.1	1	157.	64.0	44.0	37.3	3.	*URS0064B 6. *	*URS0068A 11. *	*CYP0086B 12 *
29	KEN0249B	14.0	27	37.5	0.4	2.1	1.4	95.	39.4	1	267.	63.6	41.9	3.9	4.	*SDN0231B 8. *	*OMA0123B 12. *	*URS0061B 12 *
30	URS0061B	14.0	27	24.4	56.5	0.8	0.6	5.	47.4	2	48.	64.2	21.0	56.8	-2.	*DNK0089B -1. *	*KEN0249B 5. *	*I 0082B 11 *
31	OMA0123B	20.0	27	55.5	21.0	1.5	1.1	98.	42.0	1	154.	63.9	52.0	19.0	4.	*YEM0266B 8. *	*ARS0275B 9. *	*SDN0231B 13 *
32	URS0068A	44.0	27	58.4	39.0	2.2	0.9	164.	41.3	1	183.	63.9	53.7	37.4	5.	*IRQ0256B 6. *	*URS0067A 16. *	*URS0064B 23 *
33	URS0074A	74.0	27	92.0	60.2	2.1	1.5	5.	39.3	1	323.	64.4	87.3	49.2	-14.	*MNG0248A-14. *	*URS0080C 24. *	*URS0068A 24 *
34	URS0080C	140.0	27	156.5	56.3	2.4	2.0	18.	37.4	1	482.	64.3	151.8	46.8	39.	*URS0077B 42. *	*URS0078A 43. *	*LIE0253B 90

Canal **28** - Channel **28** - Canal **28**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
17	SEN0222B	-34.0	28	-14.4	13.4	1.2	0.9	139.	44.0	2	92.	63.6	-14.7	17.7	3.	*CNR0130B	9.	*SMR0311B	10.	*MCO0116C	10
18	SMR0311B	-34.0	28	12.1	43.3	0.6	0.6	0.	48.7	1	37.	64.3	12.1	43.3	3.	*F 0093B	6.	*MCO0116C	12.	*SEN0222B	14
19	CNR0130B	-28.0	28	-15.4	28.2	1.1	0.6	2.	46.2	2	57.	63.7	-13.0	27.9	0.	*NGR0115B	4.	*MRC0209B	7.	*HVO0107C	9
20	NGR0115B	-28.0	28	8.1	16.4	2.4	2.0	56.	37.4	1	449.	63.9	2.1	13.5	4.	*HVO0107C	9.	*AZR0134B	10.	*DAH0233B	12
21	AGL0295B	-16.0	28	16.3	-12.3	2.5	1.9	71.	37.3	1	445.	63.8	23.0	-17.5	2.	*BOT0297B	6.	*F 0093B	7.	*AFS0021B	10
22	F 0093B	-16.0	28	3.1	45.5	2.3	0.9	150.	41.1	2	201.	64.1	9.5	41.2	-3.	*SMR0311B	0.	*AGL0295B	4.	*I 0082B	8
23	ALB0296B	-10.0	28	19.5	41.1	0.6	0.6	0.	48.7	1	35.	64.1	19.8	42.6	0.	*F 0093B	8.	*I 0082B	8.	*GRC0105C	9
24	STP0241B	-10.0	28	6.4	0.5	0.6	0.6	0.	48.7	2	31.	63.6	7.4	1.7	5.	*AGL0295B	11.	*NGR0115B	12.	*EGY0026B	12
25	EGY0026B	-4.0	28	30.3	27.5	2.5	1.6	135.	38.1	2	382.	64.0	34.5	31.7	2.	*ARS0275B	5.	*NGR0115B	13.	*CYP0086B	13
26	BDI0270B	2.0	28	29.2	-3.2	0.6	0.6	0.	48.7	2	32.	63.7	29.5	-4.2	4.	*TGK0225C	7.	*AGL0295B	10.	*POL0132B	12
27	POL0132B	2.0	28	19.2	52.0	1.4	0.6	158.	45.0	1	83.	64.2	20.0	49.2	4.	*SMR0311B	7.	*F 0093B	13.	*NOR0120C	17
28	AFS0021B	8.0	28	24.1	-28.1	2.9	1.4	30.	38.1	1	373.	63.8	24.0	-23.0	5.	*AGL0295B	6.	*BOT0297B	16.	*IRQ0256B	21
29	ARS0275B	20.0	28	46.3	25.4	3.6	1.2	145.	37.9	2	393.	63.8	47.5	6.0	-9.	*OMA0123B	-4.	*AFS0021B	-0.	*EGY0026B	3.
30	URS0073A	44.0	28	55.2	64.1	1.4	0.6	6.	45.0	2	88.	64.4	49.5	59.3	9.	*URS0066B	11.	*URS0068A	16.	*URS0059C	20
31	URS0077B	110.0	28	113.4	59.1	2.1	1.8	31.	38.5	1	383.	64.3	103.6	50.1	16.	*URS0075A	20.	*URS0066B	21.	*URS0074A	25

Canal **29** - Channel **29** - Canal **29**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
16	GUI0192C	-34.0	29	-11.1	10.1	1.4	1.0	141.	42.8	1	123.	63.7	-8.6	8.6	2.	*HVD0107C 4. *	*SRL0259C 11. *	*SEN0222B 16 *
17	MCD0116C	-34.0	29	7.2	43.4	0.6	0.6	0.	48.7	2	36.	64.3	3.0	43.5	-3.	*E 0129C 3. *	*AUT0016C 4. *	*LIE0253C 4 *
18	HVD0107C	-28.0	29	-1.5	12.0	1.5	1.2	15.	41.8	2	156.	63.7	-5.0	10.0	0.	*GUI0192C 2. *	*POR0133C 11. *	*E 0129C 11 *
19	POR0133C	-28.0	29	-8.0	39.3	1.0	0.6	101.	46.6	1	55.	64.0	-8.3	42.1	3.	*E 0129C 8. *	*HVD0107C 9. *	*NGR0115B 9 *
20	TUN0150C	-22.0	29	9.2	34.0	1.3	0.6	115.	45.2	2	76.	64.0	12.0	35.3	4.	*GRC0105C 11. *	*F 0093B 12. *	*SDN0230C 12 *
21	AUT0016C	-16.0	29	12.1	47.3	1.1	0.7	167.	45.5	1	74.	64.2	17.1	48.0	-1.	*MCD0116C 5. *	*URS0059C 6. *	*SDN0230C 6 *
22	SDN0230C	-16.0	29	29.0	7.4	1.9	0.9	128.	42.0	2	160.	64.0	36.0	4.6	4.	*TGK0225C 8. *	*F 0093B 10. *	*AUT0016C 11 *
23	ZMB0314C	-10.0	29	-28.2	-12.3	2.2	1.3	50.	39.5	1	258.	63.6	28.5	-8.0	-26.	*TGK0225C-25. *	*AGL0295B-17. *	*SDN0230C -8 *
24	GRC0105C	-4.0	29	24.5	38.1	1.6	0.9	159.	42.6	1	140.	64.0	26.6	41.5	1.	*URS0059C 3. *	*YUG0148C 10. *	*EGY0026B 13 *
25	NOR0120C	2.0	29	14.0	64.3	1.5	0.9	18.	42.7	2	149.	64.5	29.0	69.0	0.	*URS0059C 1. *	*URS0066B 14. *	*SWZ0313C 16 *
26	SWZ0313C	2.0	29	30.5	-26.2	0.6	0.6	0.	48.7	1	33.	63.9	31.9	-26.5	5.	*AFS0021B 8. *	*NOR0120C 10. *	*LSD0305C 20 *
27	JOR0224C	8.0	29	36.1	31.4	0.9	0.6	130.	47.1	1	48.	63.9	34.0	35.0	-8.	*URS0059C -4. *	*GRC0105C -3. *	*TGK0225C -1 *
28	TGK0225C	8.0	29	34.3	-5.5	2.2	1.6	121.	38.8	2	312.	63.7	30.5	-1.0	1.	*RRW0310C 5. *	*YMS0267C 8. *	*BDI0270B 9 *
29	AFI0099C	14.0	29	42.3	11.2	0.6	0.6	0.	48.7	1	32.	63.8	43.5	12.5	0.	*URS0059C 2. *	*QAT0247C 13. *	*YEM0266C 13 *
30	URS0059C	14.0	29	36.0	47.0	3.7	1.5	153.	36.8	2	541.	64.1	22.0	58.9	-1.	*NOR0120C -1. *	*AUT0016C 15. *	*AFI0099C 15 *
31	QAT0247C	20.0	29	51.1	25.1	0.6	0.6	0.	48.7	1	33.	63.9	51.1	26.2	5.	*ARS0275B 9. *	*YEM0266C 10. *	*URS0059C 14 *
32	MAUG242C	26.0	29	60.0	-19.0	1.3	1.3	0.	42.0	2	156.	63.9	60.0	-15.0	17.	*URS0059C 24. *	*TGK0225C 24. *	*SDN0230C 25 *
33	URS0066B	44.0	29	65.2	45.5	3.7	2.0	174.	35.6	1	716.	64.1	87.3	49.2	0.	*URS0075A 1. *	*URS0059C 13. *	*URS0067B 15 *
34	URS0075A	74.0	29	93.3	51.1	1.4	0.6	179.	45.0	1	83.	64.2	99.0	52.9	-14.	*MNG0248B-14. *	*URS0066B 5. *	*URS0078B 19 *
35	URS0079C	140.0	29	138.2	58.4	2.6	1.5	62.	38.3	1	395.	64.3	128.4	73.3	17.	*URS0077B 18. *	*URS0075A 25. *	*MNG0248B 33 *

Canal **30** - Channel **30** - Canal **30**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
21	LIE0253C	-34.0	30	9.3	47.0	0.8	0.8	0.	46.2	1	66.	64.4	9.3	47.1	3.	*YUG0148C	8.	*E 0129C	8.	*LUX0114C	10
22	SRL0259C	-34.0	30	-11.5	8.3	0.6	0.6	0.	48.7	2	32.	63.7	-11.7	10.0	-1.	*MTN0223C	1.	*GUI0192C	5.	*LIE0253C	10
23	E 0129C	-28.0	30	-3.0	39.4	1.9	1.0	164.	41.4	2	182.	64.0	3.3	42.3	-4.	*LIE0253C	-2.	*MCO0116C	5.	*LUX0114C	8
24	TGO0226C	-28.0	30	0.5	8.4	1.2	0.6	104.	45.7	1	64.	63.8	-0.2	11.1	-3.	*MTN0223C	-1.	*HVO0107C	8.	*E 0129C	8
25	MTN0223C	-22.0	30	-10.0	20.0	2.5	2.2	9.	36.8	1	483.	63.7	-15.7	24.0	7.	*MRC0209C	9.	*TGO0226C	16.	*NMB0025C	19
26	LUX0114C	-16.0	30	5.4	49.5	0.6	0.6	0.	48.7	2	36.	64.2	8.1	48.2	-8.	*LIE0253C	-4.	*YUG0148C	-0.	*E 0129C	2
27	NMB0025C	-16.0	30	17.4	-21.0	2.2	1.6	54.	38.6	1	338.	63.9	25.0	-17.6	3.	*BOT0297C	5.	*MTN0223C	13.	*LUX0114C	14
28	CME0300C	-10.0	30	12.4	5.4	2.5	1.2	93.	39.6	2	257.	63.7	14.2	13.2	9.	*SDN0231C	15.	*YUG0148C	19.	*NMB0025C	19
29	YUG0148C	-4.0	30	18.3	43.5	1.6	0.6	153.	44.3	2	95.	64.1	13.4	46.4	-0.	*LIE0253C	1.	*E 0129C	11.	*CME0300C	13
30	ISL0049C	2.0	30	-19.2	64.5	1.0	0.6	4.	46.5	1	64.	64.5	-13.5	65.1	10.	*NOR0120C	16.	*RRW0310C	16.	*DNK0089C	17
31	RRW0310C	2.0	30	30.0	-1.2	0.6	0.6	0.	48.7	2	32.	63.7	29.8	-4.5	-8.	*TGK0225C	-6.	*ISL0049C	0.	*YMS0267C	1
32	LSO0305C	8.0	30	28.0	-29.3	0.6	0.6	0.	48.7	1	33.	63.8	29.5	-29.4	4.	*NMB0025C	8.	*YMS0267C	9.	*SWZ0313C	11
33	YMS0267C	8.0	30	47.1	15.4	1.6	1.0	25.	42.4	2	144.	64.0	52.5	18.7	-4.	*YEM0266C	-3.	*TGK0225C	8.	*OMA0123C	13
34	URS0064C	14.0	30	45.0	41.1	1.5	0.6	156.	44.7	1	88.	64.1	50.3	40.3	3.	*KEN0249C	9.	*URS0059C	9.	*YEM0266C	11
35	YEM0266C	20.0	30	46.3	17.3	2.9	2.1	84.	36.3	2	562.	63.8	47.5	16.8	-1.	*YMS0267C	-1.	*OMA0123C	16.	*QAT0247C	26
36	URS0067B	44.0	30	65.1	61.4	2.7	1.3	179.	38.8	2	366.	64.4	74.3	53.5	3.	*URS0066B	6.	*MNG0248B	10.	*URS0071A	13
37	MNG0248B	74.0	30	102.4	46.5	3.1	1.2	173.	38.5	1	367.	64.2	98.8	51.9	-17.	*URS0075A	-15.	*URS0074B	-13.	*URS0078B	2
38	URS0078B	110.0	30	107.2	53.4	1.7	0.7	11.	43.5	1	118.	64.2	107.8	50.0	0.	*MNG0248B	0.	*URS0066B	23.	*URS0067B	24

Canal **31** - Channel **31** - Canal **31**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
19	LBR0244C	-34.0	31	-9.2	0.2	0.9	0.6	123.	46.9	1	48.	63.7	-10.2	8.5	-17.	*SRL0259C -14. *	*SEN0222C -9. *	*LIE0253C -6 *
20	AZR0134C	-28.0	31	-23.2	36.1	2.5	0.7	158.	41.9	1	159.	63.9	-16.9	32.5	2.	*MRC0209C 7. *	*NGR0115C 8. *	*DAH0233C 12 *
21	DAH0233C	-28.0	31	2.1	9.1	1.1	0.6	87.	45.6	2	67.	63.8	1.0	10.4	2.	*AZR0134C 7. *	*TGO0226C 8. *	*NGR0115C 9 *
22	MRC0209C	-22.0	31	-8.4	29.4	2.4	1.3	43.	39.4	2	278.	63.8	-6.0	36.0	3.	*F 0129C 5. *	*SDN0231C 12. *	*MTN0223C 14 *
23	I 0082C	-16.0	31	12.2	40.4	2.3	1.0	142.	40.6	1	226.	64.1	6.6	45.1	0.	*SDN0231C 5. *	*F 0093C 7. *	*MRC0209C 7 *
24	SDN0231C	-16.0	31	30.0	12.4	2.0	1.4	146.	39.8	2	268.	64.1	34.0	8.5	1.	*I 0082C 5. *	*KEN0249C 6. *	*F 0093C 10 *
25	BOT0297C	-10.0	31	23.2	-22.1	1.9	1.2	42.	40.8	1	208.	63.9	21.0	-18.4	3.	*NMB0025C 6. *	*AGL0295C 7. *	*CME0300C 17 *
26	CYP0086C	-4.0	31	33.2	35.0	0.6	0.6	0.	48.7	1	35.	64.1	33.8	35.3	2.	*IRQ0256C 4. *	*EGY0026C 11. *	*I 0082C 16 *
27	DNK0089C	2.0	31	12.1	57.1	1.2	0.6	177.	45.7	2	73.	64.3	12.0	54.6	5.	*I 0082C 8. *	*POL0132C 10. *	*URS0061C 16 *
28	IRQ0256C	8.0	31	43.4	33.0	1.8	0.9	154.	42.1	1	159.	64.1	37.5	33.3	3.	*CYP0086C 4. *	*KEN0249C 14. *	*AFS0021C 15 *
29	KEN0249C	14.0	31	37.5	0.4	2.1	1.4	95.	39.4	1	270.	63.7	41.9	3.9	4.	*SDN0231C 8. *	*OMA0123C 12. *	*URS0061C 12 *
30	URS0061C	14.0	31	24.4	56.5	0.8	0.6	5.	47.4	2	49.	64.3	21.0	56.8	-2.	*DNK0089C -1. *	*KEN0249C 5. *	*I 0082C 11 *
31	OMA0123C	20.0	31	55.5	21.0	1.5	1.1	98.	42.0	1	156.	64.0	52.0	19.0	4.	*YEM0266C 8. *	*ARS0275C 9. *	*SDN0231C 13 *
32	URS0071A	44.0	31	64.0	41.3	2.3	0.9	165.	41.1	1	198.	64.0	56.0	41.3	9.	*IRQ0256C 13. *	*URS0067B 15. *	*URS0064C 23 *
33	URS0074B	74.0	31	92.0	60.2	2.1	1.5	5.	39.3	1	327.	64.4	87.3	49.2	-14.	*MNG0248B -14. *	*URS0071A 17. *	*URS0080D 24 *
34	URS0080D	140.0	31	156.5	56.3	2.4	2.0	18.	37.4	1	488.	64.3	151.8	46.8	39.	*URS0077C 42. *	*URS0078B 43. *	*LIE0253C 90 *

Canal **32** - Channel **32** - Canal **32**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
17	SEN0222C	-34.0	32	-14.4	13.4	1.2	0.9	139.	44.0	2	95.	63.7	-14.7	17.7	3.	*CNR0130C	9.	*SMR0311C	10.	*MCO0116D	10
18	SMR0311C	-34.0	32	12.1	43.3	0.6	0.6	0.	48.7	1	37.	64.4	12.1	43.3	3.	*F 0093C	6.	*MCO0116D	12.	*SEN0222C	14
19	CNR0130C	-28.0	32	-15.4	28.2	1.1	0.6	2.	46.2	2	57.	63.8	-13.0	27.9	0.	*NGR0115C	4.	*MRC0209C	7.	*HVO0107D	9
20	NGR0115C	-28.0	32	8.1	16.4	2.4	2.0	56.	37.4	1	455.	63.9	2.1	13.5	4.	*HVO0107D	9.	*AZR0134C	10.	*DAH0233C	12
21	AGL0295C	-16.0	32	16.3	-12.3	2.5	1.9	71.	37.3	1	451.	63.9	23.0	-17.5	2.	*BOT0297C	6.	*F 0093C	7.	*AFS0021C	10
22	F 0093C	-16.0	32	3.1	45.5	2.3	0.9	150.	41.1	2	203.	64.1	9.5	41.2	-3.	*SMR0311C	0.	*AGL0295C	4.	*I 0082C	8
23	ALB0296C	-10.0	32	19.5	41.1	0.6	0.6	0.	48.7	1	35.	64.1	19.8	42.6	0.	*F 0093C	8.	*I 0082C	8.	*GRC0105D	9
24	STP0241C	-10.0	32	6.4	0.5	0.6	0.6	0.	48.7	2	31.	63.6	7.4	1.7	5.	*AGL0295C	11.	*NGR0115C	12.	*EGY0026C	12
25	EGY0026C	-4.0	32	30.3	27.5	2.5	1.6	135.	38.1	2	337.	64.0	34.5	31.7	2.	*ARS0275C	5.	*NGR0115C	13.	*CYP0086C	13
26	BDI0270C	2.0	32	29.2	-3.2	0.6	0.6	0.	48.7	2	32.	63.8	29.5	-4.2	4.	*TGK0225D	7.	*AGL0295C	10.	*POL0132C	12
27	POL0132C	2.0	32	19.2	52.0	1.4	0.6	158.	45.0	1	84.	64.2	20.0	49.2	4.	*SMR0311C	7.	*F 0093C	13.	*NOR0120D	17
28	AFS0021C	8.0	32	24.1	-28.1	2.9	1.4	30.	38.1	1	377.	63.8	24.0	-23.0	5.	*AGL0295C	6.	*BOT0297C	16.	*IRQ0256C	21
29	ARS0275C	20.0	32	46.3	25.4	3.6	1.2	145.	37.9	2	398.	63.9	47.5	6.0	-9.	*OMA0123C	-4.	*AFS0021C	-0.	*EGY0026C	3
30	URS0072A	44.0	32	73.0	62.3	1.8	0.7	172.	43.2	2	134.	64.5	85.9	61.9	7.	*URS0066C	10.	*URS0077C	11.	*URS0074B	17
31	URS0077C	110.0	32	113.4	59.1	2.1	1.8	31.	38.5	1	388.	64.4	103.6	50.1	18.	*URS0066C	21.	*URS0072A	24.	*URS0074B	25

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
16	GUI0192D	-34.0	33	-11.1	10.1	1.4	1.0	141.	42.8	1	124.	63.7	-8.6	8.6	2.	*HVO0107D 4. *	*SRL0259D 11. *	*SEN0222C 16 *
17	MCO0116D	-34.0	33	7.2	43.4	0.6	0.6	0.	48.7	2	37.	64.3	3.0	43.5	-3.	*E 0129D 3. *	*AUT0016D 4. *	*LIE0253D 4 *
18	HVO0107D	-28.0	33	-1.5	12.0	1.5	1.2	15.	41.8	2	158.	63.8	-5.0	10.0	0.	*GUI0192D 2. *	*POR0133D 11. *	*E 0129D 11 *
19	POR0133D	-28.0	33	-8.0	39.3	1.0	0.6	101.	46.6	1	56.	64.0	-8.3	42.1	3.	*E 0129D 8. *	*HVO0107D 9. *	*NGR0115C 9 *
20	TUN0150D	-22.0	33	9.2	34.0	1.3	0.6	115.	45.2	2	77.	64.1	12.0	35.3	4.	*GRC0105D 11. *	*F 0093C 12. *	*SDN0230D 12 *
21	AUT0016D	-16.0	33	12.1	47.3	1.1	0.7	167.	45.5	1	75.	64.2	17.1	48.0	-1.	*MCO0116D 5. *	*URS0059D 6. *	*SDN0230D 6 *
22	SDN0230D	-16.0	33	29.0	7.4	1.9	0.9	128.	42.0	2	162.	64.1	36.0	4.6	4.	*TGK0225D 8. *	*F 0093C 10. *	*AUT0016D 11 *
23	ZMB0314D	-10.0	33	-28.2	-12.3	2.2	1.3	50.	39.5	1	262.	63.7	28.5	-8.0	-26.	*TGK0225D -25. *	*AGL0295C -17. *	*SDN0230D -8 *
24	GRC0105D	-4.0	33	24.5	38.1	1.6	0.9	159.	42.6	1	142.	64.1	26.6	41.5	1.	*URS0059D 3. *	*YUG0148D 10. *	*EGY0026C 13 *
25	NOR0120D	2.0	33	14.0	64.3	1.5	0.9	18.	42.7	2	151.	64.5	29.0	69.0	0.	*URS0059D 1. *	*URS0066C 14. *	*SWZ0313D 16 *
26	SWZ0313D	2.0	33	30.5	-26.2	0.6	0.6	0.	48.7	1	34.	63.9	31.9	-26.5	5.	*AFS0021C 8. *	*NOR0120D 10. *	*LSO0305D 20 *
27	JOR0224D	8.0	33	36.1	31.4	0.9	0.6	130.	47.1	1	49.	64.0	34.0	35.0	-8.	*URS0059D -4. *	*GRC0105D -3. *	*TGK0225D -1 *
28	TGK0225D	8.0	33	34.3	-5.5	2.2	1.6	121.	38.8	2	316.	63.8	30.5	-1.0	1.	*RRW0310D 5. *	*YMS0267D 8. *	*BDI0270C 9 *
29	AFI0099D	14.0	33	42.3	11.2	0.6	0.6	0.	48.7	1	33.	63.8	43.5	12.5	0.	*URS0059D 2. *	*YEM0266D 13. *	*QAT0247D 13 *
30	URS0059D	14.0	33	36.0	47.0	3.7	1.5	153.	36.8	2	548.	64.2	22.0	58.9	-1.	*NOR0120D -1. *	*AUT0016D 15. *	*AFI0099D 15 *
31	QAT0247D	20.0	33	51.1	25.1	0.6	0.6	0.	48.7	1	34.	64.0	51.1	26.2	5.	*ARS0275C 9. *	*YEM0266D 10. *	*URS0059D 14 *
32	MAU0242D	26.0	33	60.0	-19.0	1.3	1.3	0.	42.0	2	158.	63.9	60.0	-15.0	17.	*URS0059D 24. *	*TGK0225D 24. *	*SDN0230D 25 *
33	URS0066C	44.0	33	65.2	45.5	3.7	2.0	174.	35.6	1	725.	64.2	87.3	49.2	0.	*URS0075B 1. *	*URS0059D 13. *	*URS0067C 15 *
34	URS0075B	74.0	33	93.3	51.1	1.4	0.6	179.	45.0	1	84.	64.3	99.0	52.9	-14.	*MNG0248C -14. *	*URS0066C 5. *	*URS0077C 22 *
35	URS0079D	140.0	33	138.2	58.4	2.6	1.5	62.	38.3	1	400.	64.4	128.4	73.3	17.	*URS0077C 18. *	*URS0075B 25. *	*MNG0248C 33 *

Canal **34** - Channel **34** - Canal **34**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
21	LIE0253D	-34.0	34	9.3	47.0	0.8	0.8	0.	46.2	1	67.	64.4	9.3	47.1	3.	*YUG0148D	8.	*E 0129D	8.	*LUX0114D	10
22	SRL0259D	-34.0	34	-11.5	8.3	0.6	0.6	0.	48.7	2	32.	63.7	-11.7	10.0	-1.	*MTN0223D	1.	*GUI0192D	5.	*LIE0253D	10
23	E 0129D	-28.0	34	-3.0	39.4	1.9	1.0	164.	41.4	2	185.	64.1	3.3	42.3	-4.	*LIE0253D	-2.	*MCO0116D	5.	*LUX0114D	8
24	TGD0226D	-28.0	34	0.5	8.4	1.2	0.6	104.	45.7	1	65.	63.8	-0.2	11.1	-3.	*MTN0223D	-1.	*HVO0107D	8.	*E 0129D	8
25	MTN0223D	-22.0	34	-10.0	20.0	2.5	2.2	9.	36.8	1	489.	63.7	-15.7	24.0	7.	*MRC0209D	9.	*TGD0226D	16.	*NMB0025D	19
26	LUX0114D	-16.0	34	5.4	49.5	0.6	0.6	0.	48.7	2	36.	64.3	8.1	48.2	-8.	*LIE0253D	-4.	*YUG0148D	-0.	*E 0129D	2
27	NMB0025D	-16.0	34	17.4	-21.0	2.2	1.6	54.	38.6	1	342.	64.0	25.0	-17.6	3.	*BOT0297D	5.	*MTN0223D	13.	*LUX0114D	14
28	CME0300D	-10.0	34	12.4	5.4	2.5	1.2	93.	39.6	2	261.	63.7	14.2	13.2	9.	*SDN0231D	15.	*YUG0148D	19.	*NMB0025D	19
29	YUG0148D	-4.0	34	18.3	43.5	1.6	0.6	153.	44.3	2	96.	64.1	13.4	46.4	-0.	*LIE0253D	1.	*E 0129D	11.	*CME0300D	14
30	ISL0049D	2.0	34	-19.2	64.5	1.0	0.6	4.	46.5	1	64.	64.6	-13.5	65.1	10.	*NOR0120D	16.	*RRW0310D	16.	*DNK0089D	17
31	RRW0310D	2.0	34	30.0	-1.2	0.6	0.6	0.	48.7	2	32.	63.8	29.8	-4.5	-8.	*TGK0225D	-6.	*ISL0049D	0.	*YMS0267D	1
32	LSO0305D	8.0	34	28.0	-29.3	0.6	0.6	0.	48.7	1	33.	63.9	29.5	-29.4	4.	*NMB0025D	8.	*YMS0267D	9.	*SWZ0313D	12
33	YMS0267D	8.0	34	47.1	15.4	1.6	1.0	25.	42.4	2	146.	64.0	52.5	18.7	-4.	*YEM0266D	-3.	*TGK0225D	8.	*OMA0123D	13
34	URS0064D	14.0	34	45.0	41.1	1.5	0.6	156.	44.7	1	89.	64.2	50.3	40.3	3.	*KEN0249D	9.	*URS0059D	9.	*YEM0266D	11
35	YEM0266D	20.0	34	46.3	17.3	2.9	2.1	84.	36.3	2	569.	63.8	47.5	16.8	-1.	*YMS0267D	-1.	*OMA0123D	16.	*QAT0247D	26
36	URS0067C	44.0	34	65.1	61.4	2.7	1.3	179.	38.8	2	371.	64.5	74.3	53.5	4.	*URS0066C	6.	*MNG0248C	10.	*URS0074C	19
37	MNG0248C	74.0	34	102.4	46.5	3.1	1.2	173.	38.5	1	372.	64.2	98.8	51.9	-17.	*URS0075B	-15.	*URS0074C	-13.	*URS0067C	18

Canal **35** - Channel **35** - Canal **35**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
18	LBR0244D	-34.0	35	-9.2	0.2	0.9	0.6	123.	46.9	1	49.	63.8	-10.2	8.5	-17.	*SRL0259D -14. *	*SEN0222D -9. *	*LIE0253D -6 *
19	AZR0134D	-28.0	35	-23.2	36.1	2.5	0.7	158.	41.9	1	161.	63.9	-16.9	32.5	2.	*MRC0209D 7. *	*NGR0115D 8. *	*DAH0233D 12 *
20	DAH0233D	-28.0	35	2.1	9.1	1.1	0.6	87.	45.6	2	168.	63.9	1.0	10.4	2.	*AZR0134D 7. *	*TGO0226D 8. *	*NGR0115D 9 *
21	MRC0209D	-22.0	35	-8.4	29.4	2.4	1.3	43.	39.4	2	282.	63.9	-6.0	36.0	3.	*E 0129D 5. *	*SDN0231D 12. *	*MTN0223D 14 *
22	I 0082D	-16.0	35	12.2	40.4	2.3	1.0	142.	40.6	1	229.	64.2	6.6	45.1	0.	*SDN0231D 5. *	*F 0093D 7. *	*MRC0209D 7 *
23	SDN0231D	-16.0	35	30.0	12.4	2.0	1.4	146.	39.8	2	271.	64.1	34.0	8.5	1.	*I 0082D 5. *	*KEN0249D 6. *	*F 0093D 10 *
24	BOT0297D	-10.0	35	23.2	-22.1	1.9	1.2	42.	40.8	1	211.	64.0	21.0	-18.4	3.	*NMB0025D 6. *	*AGL0295D 7. *	*CME0300D 17 *
25	CYP0086D	-4.0	35	33.2	35.0	0.6	0.6	0.	48.7	1	36.	64.2	33.8	35.3	2.	*IRQ0256D 4. *	*EGY0026D 11. *	*I 0082D 16 *
26	DNK0089D	2.0	35	12.1	57.1	1.2	0.6	177.	45.7	2	74.	64.4	12.0	54.6	5.	*I 0082D 8. *	*POL0132D 10. *	*URS0061D 16 *
27	IRQ0256D	8.0	35	43.4	33.0	1.8	0.9	154.	42.1	1	162.	64.1	37.5	33.3	3.	*CYP0086D 4. *	*KEN0249D 14. *	*AFS0021D 15 *
28	KEN0249D	14.0	35	37.5	0.4	2.1	1.4	95.	39.4	1	274.	63.7	41.9	3.9	4.	*SDN0231D 8. *	*OMA0123D 12. *	*URS0061D 12 *
29	URS0061D	14.0	35	24.4	56.5	0.8	0.6	5.	47.4	2	49.	64.4	21.0	56.8	-2.	*DNK0089D -1. *	*KEN0249D 5. *	*I 0082D 11 *
30	OMA0123D	20.0	35	55.5	21.0	1.5	1.1	98.	42.0	1	158.	64.0	52.0	19.0	4.	*YEM0266D 8. *	*ARS0275D 9. *	*SDN0231D 13 *
31	URS0069A	44.0	35	70.5	38.3	1.1	0.6	163.	46.1	1	64.	64.1	70.3	41.3	10.	*URS0067C 13. *	*URS0074C 17. *	*IRQ0256D 20 *
32	URS0074C	74.0	35	92.0	60.2	2.1	1.5	5.	39.3	1	331.	64.5	87.3	49.2	-18.	*MNG0248D -15. *	*MNG0248C -14. *	*URS0069A 24 *
33	URS0081A	140.0	35	169.0	65.0	1.5	0.6	168.	44.7	1	98.	64.6	158.1	67.8	28.	*URS0077D 28. *	*LIE0253D 90. *	*SRL0259D 90 *

Canal **36** - Channel **36** - Canal **36**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
17	SEN0222D	-34.0	36	-14.4	13.4	1.2	0.9	139.	44.0	2	94.	63.8	-14.7	17.7	3.	*CNR0130D	9.	*SMR0311D	10.	*MCO0116E	10
																*		*		*	
18	SMR0311D	-34.0	36	12.1	43.3	0.6	0.6	0.	48.7	1	38.	64.4	12.1	43.3	3.	*F 0093D	6.	*MCO0116E	12.	*SEN0222D	14
																*		*		*	
19	CNR0130D	-28.0	36	-15.4	28.2	1.1	0.6	2.	46.2	2	58.	63.9	-13.0	27.9	1.	*NGR0115D	4.	*MRC0209D	7.	*HVO0107E	9
																*		*		*	
20	NGR0115D	-28.0	36	8.1	16.4	2.4	2.0	56.	37.4	1	461.	64.0	2.1	13.5	4.	*HVO0107E	9.	*AZR0134D	10.	*DAH0233D	12
																*		*		*	
21	AGL0295D	-16.0	36	16.3	-12.3	2.5	1.9	71.	37.3	1	457.	63.9	23.0	-17.5	2.	*BOT0297D	6.	*F 0093D	7.	*AFS0021D	10
																*		*		*	
22	F 0093D	-16.0	36	3.1	45.5	2.3	0.9	150.	41.1	2	206.	64.2	9.5	41.2	-3.	*SMR0311D	0.	*AGL0295D	4.	*I 0082D	8
																*		*		*	
23	ALB0296D	-10.0	36	19.5	41.1	0.6	0.6	0.	48.7	1	36.	64.2	19.8	42.6	0.	*F 0093D	8.	*I 0082D	8.	*GRC0105E	9
																*		*		*	
24	STP0241D	-10.0	36	6.4	0.5	0.6	0.6	0.	48.7	2	32.	63.7	7.4	1.7	5.	*AGL0295D	11.	*NGR0115D	12.	*EGY0026D	12
																*		*		*	
25	EGY0026D	-4.0	36	30.3	27.5	2.5	1.6	135.	38.1	2	392.	64.1	34.5	31.7	2.	*ARS0275D	5.	*NGR0115D	13.	*CYP0086D	13
																*		*		*	
26	BDI0270D	2.0	36	29.2	-3.2	0.6	0.6	0.	48.7	2	33.	63.8	29.5	-4.2	6.	*AGL0295D	10.	*POL0132D	12.	*EGY0026D	14
																*		*		*	
27	POL0132D	2.0	36	19.2	52.0	1.4	0.6	158.	45.0	1	85.	64.3	14.4	53.9	4.	*DNK0089D	8.	*F 0093D	10.	*NOR0120E	11
																*		*		*	
28	AFS0021D	8.0	36	24.1	-28.1	2.9	1.4	30.	38.1	1	382.	63.9	24.0	-23.0	5.	*AGL0295D	6.	*BOT0297D	16.	*IRQ0256D	21
																*		*		*	
29	ARS0275D	20.0	36	46.3	25.4	3.6	1.2	145.	37.9	2	403.	63.9	38.0	20.0	-9.	*EGY0026D	-8.	*NGR0115D	1.	*OMA0123D	11
																*		*		*	
30	MNG0248D	74.0	36	102.4	46.5	3.1	1.2	173.	38.5	1	374.	64.3	98.8	51.9	-12.	*URS0074C	-12.	*URS0077D	5.	*URS0066D	21
																*		*		*	
31	URS0077D	110.0	36	113.4	59.1	2.1	1.8	31.	38.5	1	393.	64.4	103.6	50.1	-1.	*MNG0248D	-1.	*URS0066D	21.	*URS0074C	25

Canal **37** - Channel **37** - Canal **37**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
16	GUI0192E	-34.0	37	-11.1	10.1	1.4	1.0	141.	42.8	1	126.	63.8	-8.6	8.6	2.	*HVD0107E	4.	*SRL0259E	11.	*SEN0222D	16
17	MCO0116E	-34.0	37	7.2	43.4	0.6	0.6	0.	48.7	2	37.	64.4	3.0	43.5	-3.	*E 0129E	3.	*AUT0016E	4.	*LIE0253E	4
18	HVD0107E	-28.0	37	-1.5	12.0	1.5	1.2	15.	41.8	2	160.	63.8	-5.0	10.0	1.	*GUI0192E	2.	*E 0129E	11.	*NGR0115D	13
19	TUN0150E	-22.0	37	9.2	34.0	1.3	0.6	115.	45.2	2	78.	64.1	12.0	35.3	4.	*GRC0105E	11.	*F 0093D	12.	*SDN0230E	12
20	AUT0016E	-16.0	37	12.1	47.3	1.1	0.7	167.	45.5	1	76.	64.3	17.1	48.0	0.	*MCO0116E	5.	*SDN0230E	6.	*GRC0105E	11
21	SDN0230E	-16.0	37	29.0	7.4	1.9	0.9	128.	42.3	2	164.	64.1	23.5	8.7	5.	*F 0093D	9.	*AUT0016E	11.	*TUN0150E	14
22	ZMB0314E	-10.0	37	-28.2	-12.3	2.2	1.3	50.	39.5	1	265.	63.8	26.2	-15.0	-21.	*AGL0295D	-20.	*SDN0230E	-7.	*GRC0105E	-5
23	GRC0105E	-4.0	37	24.5	38.1	1.6	0.9	159.	42.6	1	144.	64.2	19.4	39.9	2.	*ALB0296D	5.	*YUG0148E	8.	*EGY0026D	14
24	NOR0120E	2.0	37	14.0	64.3	1.5	0.9	18.	42.7	2	153.	64.6	29.0	69.0	10.	*URS0066D	14.	*POL0132D	17.	*GRC0105E	22
25	JOR0224E	8.0	37	36.1	31.4	0.9	0.6	130.	47.1	1	49.	64.1	34.0	35.0	-4.	*GRC0105E	-3.	*AFS0021D	10.	*EGY0026D	10
26	AFI0099E	14.0	37	42.3	11.2	0.6	0.6	0.	48.7	1	33.	63.9	43.5	12.5	7.	*YEM0266E	13.	*URS0064E	13.	*YMS0267E	13
27	MAU0242E	26.0	37	60.3	-19.0	1.3	1.3	0.	42.0	2	160.	64.0	60.0	-15.0	19.	*SDN0230E	25.	*URS0066D	27.	*URS0079E	29
28	URS0066D	44.0	37	65.2	45.5	3.7	2.0	174.	35.6	1	734.	64.2	53.9	37.3	12.	*URS0067D	14.	*URS0064E	22.	*GRC0105E	23
29	URS0079E	140.0	37	138.2	58.4	2.6	1.5	62.	38.3	1	405.	64.4	128.4	73.3	18.	*URS0077D	18.	*MNG0248E	33.	*MNG0248D	33

Canal **38** - Channel **38** - Canal **38**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
15	LIE0253E	-34.0	38	9.3	47.0	0.8	0.8	0.	46.2	1	67.	64.5	9.3	47.1	3.	*YUG0148E	8.	*E 0129E	8.	*LUX0114E	10
16	SRL0259E	-34.0	38	-11.5	8.3	0.6	0.6	0.	48.7	2	32.	63.8	-11.7	10.0	-1.	*MTN0223E	1.	*GUI0192E	5.	*LIE0253E	10
17	E 0129E	-28.0	38	-3.0	39.4	1.9	1.0	164.	41.4	2	187.	64.2	-9.2	42.8	-9.	*POR0133E	-9.	*TGO0226E	9.	*HVO0107E	11
18	POR0133E	-28.0	38	-8.0	39.3	1.0	0.6	101.	46.6	1	57.	64.1	-8.3	42.1	-10.	*E 0129E	-8.	*TGO0226E	-4.	*AZR0134E	9
19	TGO0226E	-28.0	38	0.5	8.4	1.2	0.6	104.	45.7	1	66.	63.9	-0.2	11.1	-6.	*POR0133E	-4.	*MTN0223E	-1.	*HVO0107E	8
20	MTN0223E	-22.0	38	-10.0	20.0	2.5	2.2	9.	36.8	1	495.	63.8	-15.7	24.0	6.	*MRC0209E	9.	*POR0133E	13.	*TGO0226E	16
21	LUX0114E	-16.0	38	5.4	49.5	0.6	0.6	0.	48.7	2	36.	64.3	8.1	48.2	-7.	*LIE0253E	-4.	*YUG0148E	-0.	*E 0129E	2
22	YUG0148E	-4.0	38	18.3	43.5	1.6	0.6	153.	44.3	2	97.	64.2	13.4	46.4	-0.	*LIE0253E	1.	*E 0129E	11.	*AUT0016E	14
23	ISL0049E	2.0	38	-19.2	64.5	1.0	0.6	4.	46.5	1	65.	64.6	-13.5	65.1	11.	*NOR0120E	16.	*DNK0039E	17.	*YUG0148E	21
24	YMS0267E	8.0	38	47.1	15.4	1.6	1.0	25.	42.4	2	148.	64.1	52.5	18.7	-3.	*YEM0266E	-3.	*OMA0123E	13.	*YUG0148E	22
25	URS0064E	14.0	38	45.0	41.1	1.5	0.6	156.	44.7	1	90.	64.2	50.3	40.3	5.	*KEN0249E	9.	*YEM0266E	11.	*AFI0099E	17
26	YEM0266E	20.0	38	46.3	17.3	2.9	2.1	84.	36.3	2	576.	63.9	47.5	16.8	-1.	*YMS0267E	-1.	*OMA0123E	16.	*SDN0231E	27
27	URS0067D	44.0	38	65.1	61.4	2.7	1.3	179.	38.8	2	376.	64.5	74.3	53.5	4.	*URS0066D	6.	*MNG0248E	10.	*URS0074D	19
28	MNG0248E	74.0	38	102.4	46.5	3.1	1.2	173.	38.5	1	377.	64.3	98.8	51.9	-13.	*URS0074D	-13.	*URS0067D	18.	*URS0066D	21

Canal **39** - Channel **39** - Canal **39**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12	13	14
15	AZR0134E	-28.0	39	-23.2	36.1	2.5	0.7	158.	41.9	1	163.	64.0	-16.9	32.5	1.	*MRC0209E 7. *	*NGR0115E 8. *	*POR0133E 8 *
16	DAH0233E	-28.0	39	2.1	9.1	1.1	0.6	87.	45.6	2	69.	63.9	1.0	10.4	2.	*AZR0134E 7. *	*TGO0226E 8. *	*NGR0115E 9 *
17	MRC0209E	-22.0	39	-8.4	29.4	2.4	1.3	43.	39.4	2	285.	63.9	-6.0	36.0	3.	*F 0129E 5. *	*SDN0231E 12. *	*MTN0223E 14 *
18	I 0082E	-16.0	39	12.2	40.4	2.3	1.0	142.	40.6	1	232.	64.2	6.6	45.1	1.	*SDN0231E 5. *	*F 0093E 7. *	*MRC0209E 8 *
19	SDN0231E	-16.0	39	30.0	12.4	2.0	1.4	146.	39.8	2	275.	64.2	34.0	8.5	1.	*I 0082E 5. *	*KEN0249E 6. *	*F 0093E 10 *
20	CYP0086E	-4.0	39	33.2	35.0	0.6	0.6	0.	48.7	1	36.	64.2	32.3	34.8	8.	*EGY0026E 11. *	*I 0082E 14. *	*YUG0148E 19 *
21	DNK0089E	2.0	39	12.1	57.1	1.2	0.6	177.	45.7	2	75.	64.4	12.0	54.6	5.	*I 0082E 8. *	*POL0132E 10. *	*URS0061E 16 *
22	KEN0249E	14.0	39	37.5	0.4	2.1	1.4	95.	39.4	1	277.	63.8	41.9	3.9	5.	*SDN0231E 8. *	*OMA0123E 12. *	*URS0061E 12 *
23	URS0061E	14.0	39	24.4	56.5	0.8	0.6	5.	47.4	2	50.	64.4	21.0	56.8	-2.	*DNK0089E -1. *	*KEN0249E 5. *	*I 0082E 11 *
24	OMA0123E	20.0	39	55.5	21.0	1.5	1.1	98.	42.0	1	160.	64.1	52.0	19.0	4.	*YEM0266E 8. *	*ARS0275E 9. *	*SDN0231E 13 *
25	URS0070A	44.0	39	74.2	41.0	1.1	0.6	179.	46.1	1	66.	64.2	80.3	42.2	8.	*URS0074D 9. *	*URS0067D 15. *	*MNG0248E 23 *
26	URS0074D	74.0	39	92.0	60.2	2.1	1.5	5.	39.3	1	335.	64.5	87.3	49.2	-14.	*MNG0248E-14. *	*URS0070A 15. *	*OMA0123E 24 *
27	URS0081B	140.0	39	169.0	65.0	1.5	0.6	168.	44.7	1	99.	64.7	158.1	67.8	28.	*URS0077E 28. *	*LIE0253E 90. *	*SRL0259E 90 *

Canal **40** - Channel **40** - Canal **40**

	1	2	3	4		5		6	7	8	9a	9b	10		11	12		13		14	
14	SEN0222E	-34.0	40	-14.4	13.4	1.2	0.9	139.	44.0	2	96.	63.8	-14.7	17.7	7.	*CNR0130E *	9.	*NGR0115E *	14.	*MRC0209E *	18
15	CNR0130E	-28.0	40	-15.4	28.2	1.1	0.6	2.	46.2	2	59.	63.9	-13.0	27.9	1.	*NGR0115E *	4.	*MRC0209E *	7.	*DAH0233E *	14
16	NGR0115E	-28.0	40	8.1	16.4	2.4	2.0	56.	37.4	1	467.	64.1	12.0	23.5	6.	*AZR0134E *	9.	*CNR0130E *	10.	*EGY0026E *	19
17	F 0093E	-16.0	40	3.1	45.5	2.3	0.9	150.	41.1	2	209.	64.2	9.5	41.2	4.	*I 0082E *	8.	*SDN0231E *	9.	*MRC0209E *	15
18	STP0241E	-10.0	40	6.4	0.5	0.6	0.6	0.	48.7	2	32.	63.7	7.4	1.7	8.	*NGR0115E *	12.	*EGY0026E *	12.	*F 0093E *	18
19	EGY0026E	-4.0	40	30.3	27.5	2.5	1.6	135.	38.1	2	397.	64.1	34.5	31.7	3.	*ARS0275E *	5.	*NGR0115E *	13.	*CYP0086E *	13
20	BDI0270E	2.0	40	29.2	-3.2	0.6	0.6	0.	48.7	2	33.	63.9	29.5	-4.2	9.	*POL0132E *	12.	*EGY0026E *	14.	*AFS0021E *	21
21	POL0132E	2.0	40	19.2	52.0	1.4	0.6	158.	45.0	1	86.	64.4	14.4	53.9	5.	*ONK0089E *	8.	*F 0093E *	10.	*BDI0270E *	16
22	AFS0021E	8.0	40	24.1	-28.1	2.9	1.4	30.	38.1	1	387.	63.9	30.0	-22.1	18.	*EGY0026E *	24.	*NGR0115E *	25.	*BDI0270E *	26
23	ARS0275E	20.0	40	46.3	25.4	3.6	1.2	145.	37.9	2	408.	64.0	38.0	20.0	-8.	*EGY0026E *	-8.	*NGR0115E *	1.	*OMA0123E *	11
24	URS0077E	110.0	40	113.4	59.1	2.1	1.8	31.	38.5	1	398.	64.5	103.6	50.1	24.	*URS0074D *	25.	*URS0070A *	40.	*URS0081B *	44

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/36-E
28 January 1977
Original : English

WORKING GROUP 5A

Note by the Chairman of Working Group 5A

ANALYSIS OF THE PLANNING EXERCISE FROM SUB-GROUP 5A3 TO MAKE A PLAN FOR THE BROADCASTING SATELLITE SERVICE FOR REGIONS 1 AND 3

PLAN FOR MINIMUM OR BASE-LINE REQUIREMENTS

The attached example of a Region 1 and 3 Plan has been produced by Sub-Working Group 5A3 under the terms of reference approved by Working Group 5A. The resulting Plan has been analysed by the TDF (Télédiffusion de France) computer, the results of which are given in Annex 1, 2 and 3.

Annex 1 to these Appendices - gives the input geographical data which was fed to the computer. The TDF computer has a powerful beam optimization facility which has corrected automatically the beam shape for new orbital positions. For this reason the beams used will be slightly different for the majority of countries from those indicated by the IFRB. In fact they will be more accurate from the view point of calculating interference. It should be noted that the ellipses includes an allowance for beam pointing errors.

Annex 2 to these Appendices - gives a table which specifies the orbit positions (- means West and no sign means East), the frequency channel number (1 to 40) and the polarization. The polarization is given by the letter D (meaning direct) and I (meaning indirect) which is immediately after the country symbol. The letter, usually I, after the polarization indication can be ignored. The numerical values given in the table represent the number of decibels (or margin) above or below the required standard of protection of 31 dB.

Annex 3 to these Appendices - This summarises the negative margins in the Plan. That is the countries where the Plan has failed to meet the 31 dB agreed standard. For each such country, the countries which have contributed to that negative margin are indicated together with the carrier-to-interference ratio extracted from the interference matrix. The corresponding channel number is also given.

Important Notes :

1. The TDF computer is limited in the number of countries which can be processed in one analysis. For this reason the complete Region 1 and 3 Plan has been analyzed in 3 stages. First the most Western part of the Plan is analyzed.

ARCHIVES U.I.T. GENÈVE

Then the centre part of the Plan and finally the most Easterly part of the Plan. There is considerable overlap between the first and second sections and the second and third sections. This is to ensure all possible interference possibilities have been analyzed. But it also means that for many countries the same information is given in more than one section. Appendix 1 gives the most Western section, Appendix 2 the central section and Appendix 3 the Eastern section of the Plan. In each Appendix are three Annexes giving the information described above for each section of the Plan.

2. The orbit positions given in the Plan should all be within the guidelines laid down in the Document No. DL/15 approved by Working Group 5A. Where this is not the case the Chairman of the Sub-Group will declare this at the meeting of 5A and the Conciliation Group will then take-up the matter with the administrations concerned before the final Plan is constructed. The number of such countries is very small.

3. Where the orbit position given to a country does not correspond to the precise position asked for after publication of the orbit proposals of Sub-Working Groups 5A2 and 5A3, this is due entirely to the time factors. Delegations are reminded of the decision of Working Group 5A that only those changes should be incorporated which would not delay the production of this first example of a Plan.

4. Some unintentional errors may have arisen in the production of this planning example relating to the requirements of countries. Delegations are urged to study the Plan most carefully and bring to the notice of the IFRB any such errors before Monday at 6 p.m. It is most important that the construction of the final or definitive Plan is absolutely free of such errors.

5. The TDF computer uses country symbols which differ from the ITU approved list. The conversion from one set of symbols to the other is given in Document DT/38.

6. It is proposed to provide delegations with an IFRB analysis of the same Plan. This will differ slightly from the TDF analysis for the following reasons :

a) The IFRB programme has not used ellipses re-calculated for the new orbit positions.

b) The test points used in the TDF programme correspond to the service area polygon whereas the IFRB programme has used 3 (to shorten the computer running time) from the 6 test points given by delegations.

Thus it is important that delegations wishing to compare the results from this Working Group with the results of the second Plan produced by the other Working Group should do so on the basis of the analysis by the same computer.

7. For the Western section of the Plan, instead of showing all 40 channels, the results have been abbreviated. Thus, channel 1 really means channels 1, 5, 9, 13 and 17. The full interpretation is given below :

Channel indicated on computer print-out	Actual channels assigned to that country				
1	1	5	9	13	17
2	2	6	10	14	18
3	3	7	11	15	19
4	4	8	12	16	20
21	21	25	29	33	37
22	22	26	30	34	38
23	23	27	31	35	39
24	24	28	32	36	40

S.R. TEMPLE
Chairman of WG 5A

Appendices : 3 (each one with 3 Annexes)

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

PAGE INTENTIONALLY LEFT BLANK

5A3

APPENDICE 1 - Annexe 1
(Partie Ouest)

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
ICV	16.05	-24.01	126.	0.34	0.44	17.4
GMB	13.41	-15.37	82.	0.30	0.51	16.8
GNP	12.00	-15.03	97.	0.30	0.45	16.4
GUI	10.26	-11.05	123.	0.53	0.79	22.0
LBR	6.67	-9.36	136.	0.34	0.59	18.8
NIG	9.44	7.66	5.	0.82	1.00	25.2
SEN	14.17	-14.69	109.	0.49	0.73	21.2
SRL	8.60	-11.84	156.	0.32	0.39	16.7
SMR	43.75	12.65	146.	0.30	0.30	13.8
CVA	41.90	12.44	87.	0.30	0.30	13.3
MCO	43.73	7.42	13.	0.30	0.30	13.8
LIE	47.10	9.58	113.	0.30	0.30	14.5
AND	42.49	1.62	87.	0.30	0.30	13.4
AZR	36.18	-23.38	119.	0.35	1.26	22.4
POR	39.60	-8.01	6.	0.30	0.55	17.8
E	39.92	-3.17	124.	0.61	1.04	24.2
CNR	28.45	-15.73	83.	0.30	0.78	18.7
G	53.87	-3.51	162.	0.38	0.86	22.1
IRL	53.25	-8.26	123.	0.30	0.39	16.9
CTI	7.52	-5.69	165.	0.69	0.74	22.8
GHA	7.94	-1.28	171.	0.50	0.75	21.6
HVO	12.13	-1.92	86.	0.61	0.75	22.3
MW1	13.27	-7.36	96.	0.53	0.79	21.9
MW2	19.17	-0.67	122.	0.62	1.06	24.0
NGR	16.83	8.25	46.	1.02	1.25	27.0
TGO	8.68	0.89	170.	0.30	0.75	18.5
DAH	9.56	2.25	179.	0.32	0.71	19.3
ALH	31.98	0.85	82.	0.80	1.92	27.8
ALI	24.52	2.64	108.	1.08	1.99	29.2
LBY	26.76	16.93	150.	0.85	1.79	28.0
MRC	29.24	-9.08	47.	0.69	1.36	25.6
MTN	20.23	-10.67	118.	1.19	1.36	27.8
TUN	34.01	9.55	178.	0.31	0.66	19.3
CME	6.25	12.79	7.	0.86	1.29	26.2
STP	0.85	7.02	26.	0.30	0.47	16.3
GAB	-0.68	11.85	26.	0.58	0.70	21.8
TCD	14.95	18.18	173.	0.92	1.69	27.7
CAF	6.33	20.35	79.	0.89	1.17	26.0
COG	-0.76	14.69	36.	0.60	1.03	23.6
AUT	47.56	13.59	87.	0.30	0.57	18.1

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
BEL	50.64	4.72	117.	0.30	0.40	16.5
D	50.68	9.79	148.	0.35	0.69	20.5
F	45.91	2.78	120.	0.51	1.22	24.2
HOL	52.08	5.40	115.	0.30	0.37	16.2
I	41.32	12.37	155.	0.56	1.17	24.4
LUX	49.80	6.08	146.	0.30	0.30	13.7
SUI	46.79	8.05	87.	0.30	0.41	16.4
AGL	-11.63	16.97	4.	1.15	1.61	28.5
GNE	1.59	10.39	79.	0.30	0.34	15.2
ZAI	-3.34	22.36	172.	1.56	1.91	30.7
NMB	-21.61	17.69	53.	1.03	1.35	27.4
SD1	7.52	29.16	115.	0.52	1.09	23.6
SD2	12.74	28.79	127.	0.91	1.04	25.9
SD3	19.01	30.30	95.	0.72	1.09	25.2
ALB	41.13	20.01	173.	0.30	0.38	16.0
BUL	42.65	24.91	111.	0.30	0.52	17.8
HNG	47.16	19.32	87.	0.30	0.50	17.5
ROU	45.74	24.94	128.	0.30	0.63	19.4
TCH	49.27	17.00	107.	0.30	0.78	19.5
BOT	-22.09	23.67	34.	0.66	1.07	24.5
ZMB	-13.13	27.48	44.	0.69	1.11	24.8
YUG	43.75	18.45	131.	0.33	0.85	20.8
CYP	35.11	33.43	73.	0.30	0.30	14.6
GRC	38.15	24.02	122.	0.49	0.89	22.6
MLT	35.95	14.37	113.	0.30	0.30	13.3
EGY	26.98	30.21	147.	0.67	1.23	25.2
ISR	31.44	34.95	1.	0.30	0.48	17.0
BDI	-3.19	29.90	9.	0.30	0.39	15.7
MOZ	-17.40	34.91	19.	0.77	1.74	27.2
RHS	-18.82	29.66	62.	0.69	0.74	22.9
RRW	-2.00	29.87	40.	0.30	0.34	15.0
SWZ	-26.55	31.52	11.	0.30	0.30	14.7
UGA	1.29	32.35	22.	0.48	0.77	21.5
ISL	64.27	-15.88	119.	0.30	0.80	21.1
FRO	61.79	-6.80	93.	0.30	0.30	14.8
UNK	55.92	11.03	117.	0.30	0.59	18.4
FNL	63.64	24.31	124.	0.33	0.70	21.8
NOR	64.10	12.97	57.	0.45	0.88	23.8
S	61.07	16.23	166.	0.49	0.52	21.4
DDR	52.13	12.39	118.	0.31	0.43	17.7

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
POL	51.98	19.12	118.	0.35	0.69	20.4
IRQ	32.89	43.66	133.	0.47	0.93	22.7
JOR	31.42	36.86	81.	0.38	0.41	18.0
LBN	33.94	35.87	32.	0.30	0.30	14.4
SOM	6.39	44.97	22.	0.65	1.57	26.1
SYR	34.96	38.31	86.	0.46	0.49	19.7
AFS	-28.27	24.64	59.	0.84	1.64	27.2
LSO	-29.70	28.18	49.	0.30	0.39	15.7
MWI	-13.04	34.16	166.	0.33	0.75	19.8
TGK	-6.25	34.64	146.	0.82	1.23	25.8
TUR	38.96	34.54	102.	0.52	1.34	24.6
BLR	52.91	27.70	79.	0.36	0.58	19.7
UKR	48.47	31.14	101.	0.49	1.11	23.7
U01	47.66	35.43	132.	0.75	2.38	28.9
U02	57.35	40.80	145.	0.66	1.71	27.8
U09	56.70	24.72	84.	0.31	0.44	18.3
U10	40.89	45.65	109.	0.30	1.08	20.7
U11	63.15	32.40	97.	0.30	0.71	20.3
KEN	0.71	37.89	172.	0.89	1.08	25.5
ETH	9.43	39.52	144.	1.14	1.71	28.6
AFI	11.66	42.57	22.	0.30	0.34	15.0
YMS	15.80	48.63	56.	0.45	0.82	21.7
ARU	23.10	42.47	147.	0.71	1.82	26.9
ART	25.64	46.80	156.	0.58	2.12	26.8
BHR	26.13	50.50	176.	0.30	0.30	13.2
KWT	29.29	47.57	129.	0.30	0.30	14.7
OMA	21.05	55.66	9.	0.53	0.91	22.9
QAT	25.33	51.19	178.	0.30	0.30	14.4
UAE	24.26	53.64	94.	0.40	0.49	18.9
YEM	15.16	44.31	170.	0.39	0.58	19.3

APPENDICE 1 - Annexe 2
(Partie Ouest)

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0	14.0	20.0
	NIG D 1	G D 1	LBY I 1	SUI D 1	COG D 1	?	RHS D 1	SOM I 1	BLR I 1	BHR D 1
1	0.7	4.9	5.5	-0.9	3.6	*****	7.7	7.6	-0.3	7.9
	CVA I 1	MW1 I 1	?	?	HNG I 1	?	S 1 1	SYR D 1	?	?
1	-2.1	3.6	*****	*****	-3.4	*****	0.9	2.1	*****	*****
	GNP I 1	GHA D 1	ALH D 1	BEL I 1	TCD I 1	ISR I 1	UGA I 1	?	ETH D 1	KWT I 1
2	7.3	3.7	4.9	3.1	1.6	0.4	-1.5	*****	-1.4	9.3
	?	?	?	GNB D 1	BUL D 1	?	DDR D 1	?	?	?
2	*****	*****	*****	4.1	-3.2	*****	1.8	*****	*****	*****
	ICV D 1	IRL D 1	?	D D 1	CAF D 1	MLT D 1	MOZ D 1	LBN D 1	UKR I 1	UAE D 1
3	15.3	5.4	*****	0.8	2.9	8.7	5.6	6.2	-1.0	5.9
	?	MW2 I 1	?	SD3 I 1	ROU I 1	?	FNL I 1	?	?	?
3	*****	8.9	*****	2.5	-2.7	*****	0.8	*****	*****	*****
	GMB I 1	AND I 1	ALI D 1	HOL I 1	GAB I 1	?	FRO D 1	MWI D 1	UO2 D 1	ARU I 1
4	7.7	3.6	5.2	-1.8	-3.1	*****	11.9	-0.1	3.3	0.7
	?	CTI D 1	?	ZAI D 1	TCH D 1	?	?	TUR I 1	?	?
4	*****	1.3	*****	-1.9	0.7	*****	*****	-2.1	*****	*****
	GUI D 1	POR D 1	TUN I 1	AUT D 1	ZMB D 1	GRC D 1	SWZ D 1	JOR D 1	UO1 I 1	QAT D 1
21	-0.2	4.5	6.2	-1.7	-0.1	1.3	4.7	-1.2	-3.5	7.5
	MCO I 1	HVO I 1	?	SD1 I 1	?	?	NOR I 1	TGK I 1	AFI D 1	?
21	1.3	-0.9	*****	3.6	*****	*****	-1.0	0.1	0.3	*****
	SRL I 1	E I 1	MTN D 1	LUX I 1	CME I 1	YUG I 1	RRW I 1	LSO D 1	U10 D 1	YEM I 1
22	0.6	-0.2	6.5	-2.1	11.1	1.7	5.0	-3.6	4.3	-3.9
	LIE D 1	TGO D 1	?	NMB D 1	?	?	ISL D 1	YMS D 1	?	?
22	-0.1	-4.2	*****	4.1	*****	*****	11.4	-3.6	*****	*****
	LBR D 1	AZR D 1	MRC I 1	I D 1	BOT D 1	CYP D 1	DNK I 1	IRQ D 1	UO9 1 1	OMA D 1
23	6.6	1.6	2.8	0.9	4.3	0.5	1.1	4.2	-0.7	4.4
	?	DAH I 1	?	SD2 I 1	?	?	?	?	KEN D 1	?
23	*****	4.1	*****	1.4	*****	*****	*****	*****	3.5	*****
	SEN I 1	CNR I 1	?	F I 1	STP I 1	EGY I 1	BDI I 1	AFS D 1	U11 D 1	ART I 1
24	6.0	1.9	*****	-1.6	4.2	3.2	3.3	3.6	2.8	3.3
	SMR D 1	NGR D 1	?	AGL D 1	ALB D 1	?	POL D 1	?	?	?
24	-0.7	4.4	*****	3.3	0.2	*****	-0.5	*****	*****	*****

APPENDICE 1 - Annexe 3
(Partie Ouest)

ANALYSE DES BROUILLAGES DES PAYS A MARGE NEGATIVE

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)							
GUI	21	-0.2	HVO	31.1						
GUI	25	-0.2	HVO	31.1						
GUI	29	-0.2	HVO	31.1						
GUI	33	-0.2	HVO	31.1						
GUI	37	-0.2	HVO	31.1						
SMR	24	-0.7	SEN	40.3	F	31.7				
SMR	28	-0.6	SEN	40.3	F	31.7				
SMR	32	-0.6	SEN	40.3	F	31.7				
SMR	36	-0.6	SEN	40.3	F	31.7				
CVA	1	-2.1	NIG	36.6	LBY	30.9	HNG	38.1		
CVA	5	-2.0	NIG	36.6	LBY	30.9	HNG	38.1		
CVA	9	-2.0	NIG	36.6	LBY	30.9	HNG	38.1		
CVA	13	-2.0	NIG	36.6	LBY	30.9	HNG	38.1		
CVA	17	-1.2	LBY	30.9	HNG	38.1				
LIE	22	-0.1	E	34.4	LUX	39.3	YUG	35.7		
LIE	26	-0.1	E	34.4	LUX	39.3	YUG	35.7		
LIE	30	-0.1	E	34.4	LUX	39.3	YUG	35.7		
LIE	34	-0.1	E	34.4	LUX	39.3	YUG	35.7		
LIE	38	-0.1	E	34.4	LUX	39.3	YUG	35.7		
E	22	-0.2	LIE	33.0	MTN	37.6				
E	26	-0.2	LIE	33.0	MTN	37.6				
E	30	-0.2	LIE	33.0	MTN	37.6				
E	34	-0.2	LIE	33.0	MTN	37.6				
E	38	-0.2	LIE	33.0	MTN	37.6				
HVO	21	-0.9	GUI	30.7						
HVO	25	-0.9	GUI	30.7						
HVO	29	-0.9	GUI	30.7						
HVO	33	-0.9	GUI	30.7						
HVO	37	-0.9	GUI	30.7						
TGO	22	-4.2	E	36.7	MTN	27.5				
TGO	26	-4.2	E	36.7	MTN	27.5				
TGO	30	-4.2	E	36.7	MTN	27.5				
TGO	34	-4.2	E	36.7	MTN	27.5				
TGO	38	-4.0	E	36.7	MTN	27.5				
GAB	4	-3.1	ZAI	28.1						
GAB	8	-3.1	ZAI	28.1						
GAB	12	-3.1	ZAI	28.1						
GAB	16	-3.1	ZAI	28.1						
GAB	20	-3.1	ZAI	28.1						
AUT	21	-1.7	MCO	35.0	SD1	38.0	GRC	36.2	U01	34.7
AUT	25	-1.7	MCO	35.0	SD1	38.0	GRC	36.2	U01	34.7
AUT	29	-1.7	MCO	35.0	SD1	38.0	GRC	36.2	U01	34.7
AUT	33	-1.7	MCO	35.0	SD1	38.0	GRC	36.2	U01	34.7
AUT	37	-0.2	MCO	35.0	SD1	38.0	GRC	36.2		
F	24	-1.6	SMR	33.2	AGL	32.9				
F	28	-1.6	SMR	33.2	AGL	32.9				
F	32	-1.6	SMR	33.2	AGL	32.9				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB)									
F	36	-1.6	SMR	33.2	AGL	32.9						
HOL	4	-1.8	ZAI	31.6	TCH	33.5						
HOL	8	-1.8	ZAI	31.6	TCH	33.5						
HOL	12	-1.8	ZAI	31.6	TCH	33.5						
HOL	16	-1.8	ZAI	31.6	TCH	33.5						
HOL	20	-1.8	ZAI	31.6	TCH	33.5						
LUX	22	-2.1	LIE	38.5	E	33.0	NMB	34.5	YUG	36.3		
LUX	26	-2.1	LIE	38.5	E	33.0	NMB	34.5	YUG	36.3		
LUX	30	-2.1	LIE	38.5	E	33.0	NMB	34.5	YUG	36.3		
LUX	34	-2.1	LIE	38.5	E	33.0	NMB	34.5	YUG	36.3		
LUX	38	-2.0	LIE	38.5	E	33.0	NMB	34.5	YUG	36.3		
SUI	1	-0.9	G	35.3	LBY	36.2	HNG	34.7				
SUI	5	-0.9	G	35.3	LBY	36.2	HNG	34.7				
SUI	9	-0.9	G	35.3	LBY	36.2	HNG	34.7				
SUI	13	-0.9	G	35.3	LBY	36.2	HNG	34.7				
SUI	17	-0.9	G	35.3	LBY	36.2	HNG	34.7				
ZAI	4	-1.9	GAB	30.5	MWI	36.8						
ZAI	8	-1.9	GAB	30.5	MWI	36.8						
ZAI	12	-1.9	GAB	30.5	MWI	36.8						
ZAI	16	-1.9	GAB	30.5	MWI	36.8						
ZAI	20	-1.1	GAB	30.5								
BUL	2	-3.2	ALH	32.4	TCD	29.8						
BUL	6	-3.2	ALH	32.4	TCD	29.8						
BUL	10	-3.2	ALH	32.4	TCD	29.8						
BUL	14	-3.2	ALH	32.4	TCD	29.8						
BUL	18	-3.1	ALH	32.4	TCD	29.8						
HNG	1	-3.4	CVA	36.5	LBY	33.8	SUI	36.1	S	36.9	BLR	33.0
HNG	5	-2.0	CVA	36.5	LBY	33.8	COG	38.1	SUI	36.1	S	36.9
HNG	9	-2.0	CVA	36.5	LBY	33.8	COG	38.1	SUI	36.1	S	36.9
HNG	13	-2.0	CVA	36.5	LBY	33.8	COG	38.1	SUI	36.1	S	36.9
HNG	17	-2.0	CVA	36.5	LBY	33.8	COG	38.1	SUI	36.1	S	36.9
ROU	2	-1.0	TCD	14.6	BUL	22.9						
ROU	3	-2.7	CAF	35.7	D	37.5	UKR	30.2				
ROU				14.6	BUL	22.9						
ROU	10	-1.0	TCD	14.6	BUL	22.9						
ROU	14	-1.0	TCD	14.6	BUL	22.9						
ROU	18	-1.0	TCD	14.6	BUL	22.9						
ZMB	21	-0.1	TGK	31.0								
ZMB	25	-0.1	TGK	31.0								
ZMB	29	-0.1	TGK	31.0								
ZMB	33	-0.1	TGK	31.0								
UGA	2	-1.5	TCD	37.4	ETH	30.5						
UGA	6	-1.5	TCD	37.4	ETH	30.5						
UGA	10	-1.5	TCD	37.4	ETH	30.5						
UGA	14	-1.5	TCD	37.4	ETH	30.5						
UGA	18	-1.5	TCD	37.4	ETH	30.5						
NOR	21	-1.0	U01	30.2								
NOR	25	-1.0	U01	30.2								
NOR	29	-1.0	U01	30.2								
NOR	33	-1.0	U01	30.2								
POL	24	0.5	SMR	38.5	F	36.3	ALB	39.5	U11	34.7		

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
JOR	21	-1.2	GRC	36.2	TGK	35.3	UO1	33.2
JOR	25	-1.2	GRC	36.2	TGK	35.3	UO1	33.2
JOR	29	-1.2	GRC	36.2	TGK	35.3	UO1	33.2
JOR	33	-1.2	GRC	36.2	TGK	35.3	UO1	33.2
LSO	22	-3.6	NMB	34.8	YMS	28.4		
LSO	26	-3.6	NMB	34.8	YMS	28.4		
LSO	30	-3.6	NMB	34.8	YMS	28.4		
LSO	34	-3.6	NMB	34.8	YMS	28.4		
MWI	4	-0.1	ZAI	32.4	TUR	36.6		
MWI	8	-0.1	ZAI	32.4	TUR	36.6		
MWI	12	-0.1	ZAI	32.4	TUR	36.6		
MWI	16	-0.1	ZAI	32.4	TUR	36.6		
TUR	4	-2.1	UOZ	33.0	ARU	31.9		
TUR	8	-2.1	UOZ	33.0	ARU	31.9		
TUR	12	-2.1	UOZ	33.0	ARU	31.9		
TUR	16	-2.1	UOZ	33.0	ARU	31.9		
BLR	1	-0.3	HNG	33.8	S	35.4		
UKR	3	-1.0	ROU	31.7	FNL	36.5		
UO1	21	-3.5	AUT	34.6	GRC	36.8	NOR	29.8
UO1	25	-3.5	AUT	34.6	GRC	36.8	NOR	29.8
UO1	29	-3.5	AUT	34.6	GRC	36.8	NOR	29.8
UO1	33	-3.5	AUT	34.6	GRC	36.8	NOR	29.8
UO9	23	-0.7	I	38.6	DNK	32.6	KEN	36.5
ETH	2	-1.4	UGA	29.9				
ETH	6	-1.4	UGA	29.9				
ETH	10	-1.4	UGA	29.9				
ETH	14	-1.4	UGA	29.9				
ETH	18	-1.4	UGA	29.9				
YMS	22	-3.6	LSO	36.0	YEM	28.2		
YMS	26	-3.6	LSO	36.0	YEM	28.2		
YMS	30	-3.6	LSO	36.0	YEM	28.2		
YMS	34	-3.6	LSO	36.0	YEM	28.2		
YMS	38	-2.9	YEM	28.2				
YEM	22	-3.9	YMS	27.1				
YEM	26	-3.9	YMS	27.1				
YEM	30	-3.9	YMS	27.1				
YEM	34	-3.9	YMS	27.1				
YEM	38	-3.9	YMS	27.1				

APPENDICE 2 - Annexe 1
(Partie Centrale)

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
YUG	43.75	18.45	131.	0.33	0.85	20.8
CYP	35.11	33.43	73.	0.30	0.30	14.6
GRC	38.15	24.02	122.	0.49	0.89	22.6
MLT	35.95	14.37	113.	0.30	0.30	13.3
EGY	26.98	30.21	147.	0.67	1.23	25.2
ISR	31.44	34.95	1.	0.30	0.48	17.0
BDI	-3.19	29.90	9.	0.30	0.39	15.7
MOZ	-17.40	34.91	19.	0.77	1.74	27.2
RHS	-18.82	29.66	62.	0.69	0.74	22.9
RRW	-2.00	29.87	40.	0.30	0.34	15.0
SWZ	-26.55	31.52	11.	0.30	0.30	14.7
UGA	1.29	32.35	22.	0.48	0.77	21.5
ISL	64.27	-15.88	119.	0.30	0.80	21.1
FRO	61.79	-6.80	93.	0.30	0.30	14.8
UNK	55.92	11.03	117.	0.30	0.59	18.4
FNL	63.64	24.31	124.	0.33	0.70	21.8
NOR	64.10	12.97	57.	0.45	0.88	23.8
S	61.07	16.23	166.	0.49	0.52	21.4
DDR	52.13	12.39	118.	0.31	0.43	17.7
POL	51.98	19.12	118.	0.35	0.69	20.4
IRQ	32.89	43.66	133.	0.47	0.93	22.7
JOR	31.42	36.86	81.	0.38	0.41	18.0
LBN	33.94	35.87	32.	0.30	0.30	14.4
SOM	6.39	44.97	22.	0.65	1.57	26.1
SYR	34.96	38.31	86.	0.46	0.49	19.7
AFS	-28.27	24.64	59.	0.84	1.64	27.2
LSO	-29.70	28.18	49.	0.30	0.39	15.7
MWI	-13.04	34.16	166.	0.33	0.75	19.8
TGK	-6.25	34.64	146.	0.82	1.23	25.8
TUR	38.96	34.54	102.	0.52	1.34	24.6
BLR	52.91	27.70	79.	0.36	0.58	19.7
UKR	48.47	31.14	101.	0.49	1.11	23.7
U01	47.66	35.43	132.	0.75	2.38	28.9
U02	57.35	40.80	145.	0.66	1.71	27.8
U09	56.70	24.72	84.	0.31	0.44	18.3
U10	40.89	45.65	109.	0.30	1.08	20.7
U11	63.15	32.40	97.	0.30	0.71	20.3
KEN	0.71	37.89	172.	0.89	1.08	25.5
ETH	9.43	39.52	144.	1.14	1.71	28.6
AFI	11.66	42.57	22.	0.30	0.34	15.0

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
YMS	15. 80	48. 63	56.	0. 45	0. 82	21. 7
ARU	23. 10	42. 47	147.	0. 71	1. 82	26. 9
ART	25. 64	46. 80	156.	0. 58	2. 12	26. 8
BHR	26. 13	50. 50	176.	0. 30	0. 30	13. 2
KWT	29. 29	47. 57	129.	0. 30	0. 30	14. 7
OMA	21. 05	55. 66	9.	0. 53	0. 91	22. 9
QAT	25. 33	51. 19	178.	0. 30	0. 30	14. 4
UAE	24. 26	53. 64	94.	0. 40	0. 49	18. 9
YEM	15. 16	44. 31	170.	0. 39	0. 58	19. 3
U03	44. 65	64. 31	109.	1. 24	2. 28	30. 7
U04	58. 55	61. 77	116.	0. 74	1. 78	28. 3
U12	63. 56	54. 35	75.	0. 33	0. 79	21. 8
U13	38. 88	59. 07	107.	0. 50	1. 12	23. 4
U14	42. 03	63. 17	101.	0. 42	1. 32	23. 5
U15	61. 56	70. 19	96.	0. 33	1. 19	23. 8
U16	38. 58	70. 86	111.	0. 37	0. 68	20. 1
PA1	28. 97	68. 75	36.	0. 91	1. 04	25. 8
PA2	30. 90	72. 19	23.	0. 36	0. 58	19. 3
PA3	27. 96	65. 25	63.	0. 71	0. 76	23. 3
PA4	25. 84	68. 55	144.	0. 31	0. 66	19. 2
PA5	34. 42	72. 39	106.	0. 51	0. 93	23. 0
NPL	28. 21	84. 14	104.	0. 30	1. 03	20. 1
CLN	9. 00	79. 50	179.	0. 30	0. 32	14. 8
AF1	35. 27	69. 82	59.	0. 52	0. 60	20. 9
AF2	33. 09	64. 23	63.	0. 65	0. 79	23. 0
IRN	32. 47	54. 13	131.	0. 91	1. 92	28. 4
COM	-12. 20	44. 11	120.	0. 30	0. 38	15. 4
MDG	-18. 81	46. 59	20.	0. 53	1. 37	24. 4
MYT	-12. 78	45. 11	105.	0. 30	0. 30	13. 0
REU	-19. 26	55. 69	163.	0. 39	0. 78	20. 7
MAU	-16. 24	58. 29	160.	0. 73	1. 10	24. 9
U17	41. 03	73. 93	79.	0. 42	0. 67	20. 8
MLD	6. 00	73. 11	3.	0. 30	0. 48	16. 7
ING	11. 13	77. 85	97.	0. 64	0. 68	22. 1
INI	19. 57	76. 22	161.	0. 79	0. 79	23. 8
INB	33. 43	75. 94	152.	0. 54	0. 76	22. 2
IND	25. 05	72. 98	35.	0. 74	0. 91	24. 1
CHD	27. 88	102. 31	154.	0. 79	1. 28	26. 3
INK	11. 24	93. 47	177.	0. 30	1. 04	19. 9
CHC	36. 61	98. 26	100.	0. 80	1. 38	26. 6

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PU EM REELLE
CHB	31.45	88.49	111.	0.72	1.74	26.9
CHA	40.53	85.02	90.	1.02	1.76	28.7
CH7	30.12	103.51	131.	0.55	1.09	24.1
CH5	37.91	101.02	136.	0.41	1.39	24.0
CH9	25.20	101.53	144.	0.54	0.93	23.1
CH6	35.40	95.66	103.	0.57	1.05	23.9
INC	11.26	72.75	167.	0.30	0.63	18.5
INE	15.97	78.45	58.	0.69	1.04	24.3
ID2	-3.71	103.91	157.	0.86	0.98	25.0
LAO	17.98	103.62	147.	0.40	1.02	21.9
ID1	1.39	98.92	147.	0.49	1.03	22.8
BGD	23.60	90.37	140.	0.42	0.73	20.7
CH4	38.83	105.03	163.	0.30	0.92	20.2
INJ	20.54	84.72	60.	0.43	0.80	21.2
THA	13.37	100.77	170.	0.72	1.41	25.9
INF	27.75	79.38	128.	0.58	1.07	23.7
INH	22.57	79.41	128.	0.69	1.18	24.8
INA	26.26	92.37	160.	0.70	0.80	23.4
BRM	19.15	97.11	175.	0.74	1.79	27.0
INL	24.51	86.07	136.	0.45	0.78	21.3
CBG	12.56	104.97	94.	0.48	0.52	19.9
SNG	1.37	103.83	59.	0.30	0.30	12.9
U19	63.40	98.36	116.	0.33	0.98	23.3
MNG	46.64	102.25	95.	0.61	1.93	27.0
U05	57.65	88.90	129.	0.84	1.54	28.1
U18	51.58	94.25	104.	0.30	0.83	19.9

APPENDICE 2 - Annexe 2
(Partie Centrale)

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	?	RHS D 1	SOM I 1	BLR I 1	BHR D 1	COM I 1	?	PA1 D 1	?	NPL D 1
1	*****	7.9	8.6	3.9	8.2	8.9	*****	1.2	*****	-2.2
	?	S I 1	SYR D 1	?	?	?	?	?	?	?
1	*****	2.7	3.7	*****	*****	*****	*****	*****	*****	*****
	ISR I 1	UGA I 1	?	ETH D 1	KWT I 1	MDG D 1	IRN I 1	?	?	AF1 I 1
2	5.7	-0.8	*****	-1.2	-3.3	10.3	-3.3	*****	*****	0.1
	?	DDR D 1	?	?	?	?	?	?	?	?
2	*****	6.1	*****	*****	*****	*****	*****	*****	*****	*****
	MLT D 1	MOZ D 1	LBN D 1	UKR I 1	UAE D 1	MYT I 1	?	PA3 D 1	?	?
3	13.2	5.8	6.2	3.3	4.8	3.7	*****	2.5	*****	*****
	?	FNL I 1	?	?	?	?	?	?	?	?
3	*****	1.9	*****	*****	*****	*****	*****	*****	*****	*****
	?	FRO D 1	MWI D 1	UO2 D 1	ARU I 1	REU D 1	?	?	MLD I 1	CLN D 1
4	*****	12.2	3.7	3.8	1.4	16.2	*****	*****	8.3	3.9
	?	?	TUR I 1	?	?	?	?	?	?	AF2 I 1
4	*****	*****	-1.9	*****	*****	*****	*****	*****	*****	-0.7
	?	RHS D 1	SOM I 1	?	BHR D 1	COM I 1	?	PA1 D 1	?	NPL D 1
5	*****	6.8	6.9	*****	8.2	8.9	*****	1.2	*****	-2.2
	?	S I 1	SYR D 1	?	?	?	?	?	?	?
5	*****	7.8	3.8	*****	*****	*****	*****	*****	*****	*****
	ISR I 1	UGA I 1	?	ETH D 1	KWT I 1	MDG D 1	IRN I 1	?	?	AF1 I 1
6	5.7	-0.8	*****	-1.2	-3.3	10.3	-3.3	*****	*****	0.1
	?	DDR D 1	?	?	?	?	?	?	?	?
6	*****	6.2	*****	*****	*****	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	MLT D 1	MOZ D 1	LBN D 1	?	UAE D 1	MYT I 1	?	PA3 D 1	?	?
	MLT D 1	MOZ D 1	LBN D 1	?	UAE D 1	MYT I 1	?	PA3 D 1	?	?
7	13.7	5.8	6.2	*****	5.0	3.7	*****	2.6	*****	*****
	?	FNL I 1	?	?	?	?	?	?	?	?
7	*****	5.1	*****	*****	*****	*****	*****	*****	*****	*****
	?	FRO D 1	MWI D 1	UOZ D 1	ARU I 1	REU D 1	?	?	MLD I 1	CLN D 1
8	*****	12.3	3.7	3.7	1.4	16.1	*****	*****	8.3	3.9
	?	?	TUR I 1	?	?	?	?	?	?	AF2 I 1
8	*****	*****	-1.9	*****	*****	*****	*****	*****	*****	-0.8
	?	RHS D 1	SUM I 1	?	BHR D 1	CUM I 1	?	PA1 D 1	?	NPL D 1
9	*****	6.8	6.9	*****	8.2	8.9	*****	1.2	*****	-2.2
	?	S I 1	SYR D 1	?	?	?	?	?	?	?
9	*****	7.8	3.8	*****	*****	*****	*****	*****	*****	*****
	ISR I 1	UGA I 1	?	ETH D 1	KWT I 1	MDG D 1	IRN I 1	?	?	AF1 I 1
10	5.7	-0.8	*****	-1.2	-3.3	10.3	-3.3	*****	*****	0.1
	?	DOR D 1	?	?	?	?	?	?	?	?
10	*****	6.2	*****	*****	*****	*****	*****	*****	*****	*****
	MLT D 1	MOZ D 1	LBN D 1	?	UAE D 1	MYT I 1	?	PA2 D 1	?	?
11	13.8	5.8	6.2	*****	9.3	3.8	*****	-0.0	*****	*****
	?	FNL I 1	?	?	?	?	?	?	?	?
11	*****	5.1	*****	*****	*****	*****	*****	*****	*****	*****
	?	FRO D 1	MWI D 1	UOZ D 1	ARU I 1	REU D 1	?	?	MLD I 1	CLN D 1
12	*****	12.3	3.7	3.7	1.4	16.1	*****	*****	8.3	3.9
	?	?	TUR I 1	?	?	?	?	?	?	AF2 I 1
12	*****	*****	-1.9	*****	*****	*****	*****	*****	*****	-0.8

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	?	RHS D 1	SOM I 1	?	BHR D 1	COM I 1	?	PA5 D 1	?	?
13	*****	6.8	6.9	*****	8.8	8.9	*****	11.1	*****	*****
	?	S I 1	SYR D 1	?	?	?	?	?	?	?
13	*****	7.8	3.8	*****	*****	*****	*****	*****	*****	*****
	ISR I 1	UGA I 1	?	ETH D 1	KWT I 1	MDG D 1	IRN I 1	?	?	AF1 I 1
14	5.8	-0.8	*****	-1.2	-3.3	10.3	-3.3	*****	*****	0.7
	?	DDR D 1	?	?	?	?	?	?	?	?
14	*****	6.2	*****	*****	*****	*****	*****	*****	*****	*****
	MLT D 1	MOZ D 1	LBN D 1	?	UAE D 1	MYT I 1	?	PA2 D 1	?	?
15	13.8	5.8	6.2	*****	9.3	3.7	*****	-0.0	*****	*****
	?	HNL I 1	?	?	?	?	?	?	?	?
15	*****	5.1	*****	*****	*****	*****	*****	*****	*****	*****
	?	FRO D 1	MWI D 1	U02 D 1	ARU I 1	REU D 1	?	?	MLD I 1	CLN D 1
16	*****	12.3	3.7	3.8	1.4	16.2	*****	*****	8.3	3.9
	?	?	TUR I 1	?	?	?	?	?	?	AF2 I 1
16	*****	*****	-1.9	*****	*****	*****	*****	*****	*****	-0.7
	?	RHS D 1	SOM I 1	?	?	?	?	PA5 D 1	?	?
17	*****	6.8	6.9	*****	*****	*****	*****	-0.4	*****	*****
	?	S I 1	SYR D 1	?	?	?	?	?	?	?
17	*****	7.8	3.9	*****	*****	*****	*****	*****	*****	*****
	?	UGA I 1	?	ETH D 1	KWT I 1	MDG D 1	?	?	?	?
18	*****	-0.7	*****	-1.2	9.5	11.1	*****	*****	*****	*****
	?	DDR D 1	?	?	?	?	?	?	?	?
18	*****	6.2	*****	*****	*****	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	?	FNL I 1	LBN D 1	?	?	MYT I 1	?	PA4 D 1	?	?
19	*****	12.8	7.6	*****	*****	8.8	*****	9.0	*****	*****
	?	FRO D 1	TUR I 1	?	ARU I 1	REU D 1	?	?	?	?
20	*****	10.4	0.9	*****	1.6	7.6	*****	*****	*****	*****
	GRC D 1	SWZ D 1	JOR D 1	U01 I 1	QAT D 1	MAU I 1	?	?	?	?
21	1.7	6.4	-1.2	-2.4	7.3	7.2	*****	*****	*****	*****
	?	NUR I 1	TGK I 1	AFI D 1	?	?	?	?	?	?
21	*****	-1.0	5.1	0.8	*****	*****	*****	*****	*****	*****
	YUG I 1	RKW I 1	LSO D 1	U10 D 1	YEM I 1	?	?	?	?	?
22	7.3	5.2	-2.7	4.3	-3.9	*****	*****	*****	*****	*****
	?	ISL D 1	YMS D 1	?	?	?	?	?	?	?
22	*****	11.5	-3.6	*****	*****	*****	*****	*****	*****	*****
	CYP D 1	DNK I 1	IRQ D 1	U09 I 1	OMA D 1	?	?	PA4 D 1	?	?
23	0.9	3.2	4.2	0.0	5.7	*****	*****	6.0	*****	*****
	?	?	?	KEN D 1	?	?	?	?	?	?
23	*****	*****	*****	8.0	*****	*****	*****	*****	*****	*****
	EGY I 1	BDI I 1	AFS D 1	U11 D 1	ART I 1	?	?	?	?	?
24	8.1	5.0	4.7	2.9	3.8	*****	*****	*****	*****	*****
	?	POL D 1	?	?	?	?	?	?	?	?
24	*****	3.0	*****	*****	*****	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	GRC D 1	SWZ D 1	JOR D 1	U01 I 1	QAT D 1	MAU I 1	?	?	U03 D 1	?
25	1.4	5.0	-1.5	-4.0	5.7	15.6	*****	*****	0.5	*****
	?	NOR I 1	TGK I 1	AFI D 1	?	?	?	?	?	?
25	*****	-1.5	5.1	0.8	*****	*****	*****	*****	*****	*****
	YUG I 1	RRW I 1	LSO D 1	U10 D 1	YEM I 1	?	?	?	U04 I 1	?
26	7.3	5.2	-2.7	4.1	-3.9	*****	*****	*****	6.9	*****
	?	ISL D 1	YMS D 1	?	?	?	?	?	?	?
26	*****	11.4	-3.6	*****	*****	*****	*****	*****	*****	*****
	CYP D 1	DNK I 1	IRQ D 1	KEN D 1	OMA D 1	?	?	?	U13 D 1	?
27	0.8	7.6	3.9	10.2	5.7	*****	*****	*****	4.9	*****
	EGY I 1	BDI I 1	AFS D 1	?	ART I 1	?	?	?	U12 I 1	?
28	8.1	5.0	4.7	*****	3.9	*****	*****	*****	10.4	*****
	?	POL D 1	?	?	?	?	?	?	?	?
28	*****	7.1	*****	*****	*****	*****	*****	*****	*****	*****
	GRC D 1	SWZ D 1	JOR D 1	U01 I 1	QAT D 1	MAU I 1	?	?	U03 D 1	?
29	1.4	5.0	-1.5	-4.0	5.7	15.6	*****	*****	-2.1	*****
	?	NOR I 1	TGK I 1	AFI D 1	?	?	?	?	?	?
29	*****	-1.5	5.1	0.8	*****	*****	*****	*****	*****	*****
	YUG I 1	RRW I 1	LSO D 1	U10 D 1	YEM I 1	?	?	?	U04 I 1	?
30	7.3	5.2	-2.7	4.2	-3.9	*****	*****	*****	6.9	*****
	?	ISL D 1	YMS D 1	?	?	?	?	?	?	?
30	*****	11.4	-3.6	*****	*****	*****	*****	*****	*****	*****
	CYP D 1	DNK I 1	IRQ D 1	KEN D 1	OMA D 1	?	?	?	U14 D 1	?
31	0.8	7.6	4.2	10.2	5.7	*****	*****	*****	8.9	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	EGY I 1	BDI I 1	AFS D 1	?	ART I 1	?	?	?	U15 I 1	?
32	8.1	5.0	4.7	*****	3.9	*****	*****	*****	10.6	*****
	?	POL D 1	?	?	?	?	?	?	?	?
32	*****	7.1	*****	*****	*****	*****	*****	*****	*****	*****
	GRC D 1	SWZ D 1	JOR D 1	U01 I 1	QAT D 1	MAU I 1	?	?	U03 D 1	?
33	1.4	5.0	-1.5	-4.0	5.7	15.6	*****	*****	-2.1	*****
	?	NOR I 1	TGK I 1	AFI D 1	?	?	?	?	?	?
33	*****	-1.5	5.1	0.8	*****	*****	*****	*****	*****	*****
	YUG I 1	RRW I 1	LSO D 1	U10 D 1	YEM I 1	?	?	?	U04 I 1	?
34	7.3	5.2	-2.7	4.3	-3.9	*****	*****	*****	6.9	*****
	?	ISL D 1	YMS D 1	?	?	?	?	?	?	?
34	*****	11.4	-3.6	*****	*****	*****	*****	*****	*****	*****
	CYP D 1	DNK I 1	IRQ D 1	KEN D 1	OMA D 1	?	?	?	U16 D 1	?
35	0.8	7.7	4.2	10.2	5.7	*****	*****	*****	11.6	*****
	EGY I 1	BDI I 1	AFS D 1	?	ART I 1	?	?	?	?	?
36	8.2	7.7	17.1	*****	3.9	*****	*****	*****	*****	*****
	?	POL D 1	?	?	?	?	?	?	?	?
36	*****	8.0	*****	*****	*****	*****	*****	*****	*****	*****
	GRC D 1	NOR I 1	JOR D 1	AFI D 1	?	MAU I 1	?	?	U03 D 1	?
37	8.3	7.6	3.8	4.5	*****	21.7	*****	*****	5.5	*****
	YUG I 1	ISL D 1	YMS D 1	U10 D 1	YEM I 1	?	?	?	U04 I 1	?
38	7.7	11.7	-2.9	7.4	-3.9	*****	*****	*****	6.9	*****
	CYP D 1	DNK I 1	?	KEN D 1	OMA D 1	?	?	?	U17 D 1	?
39	9.3	7.7	*****	12.4	8.0	*****	*****	*****	5.6	*****

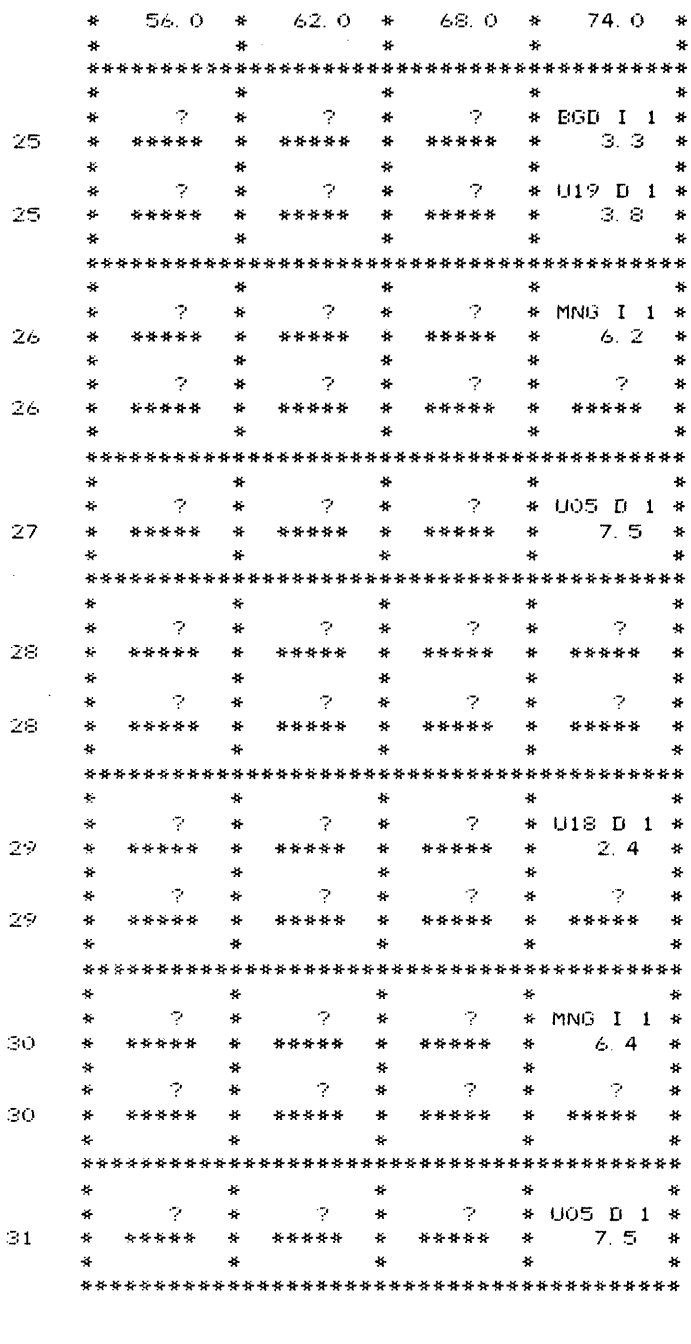
	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	EGY I 1	BDI I 1	AFS D 1	?	ART I 1	?	?	?	?	?	?
40	8.8	7.7	19.4	*****	3.9	*****	*****	*****	*****	*****	*****
	?	POL D 1	?	?	?	?	?	?	?	?	?
40	*****	8.0	*****	*****	*****	*****	*****	*****	*****	*****	*****

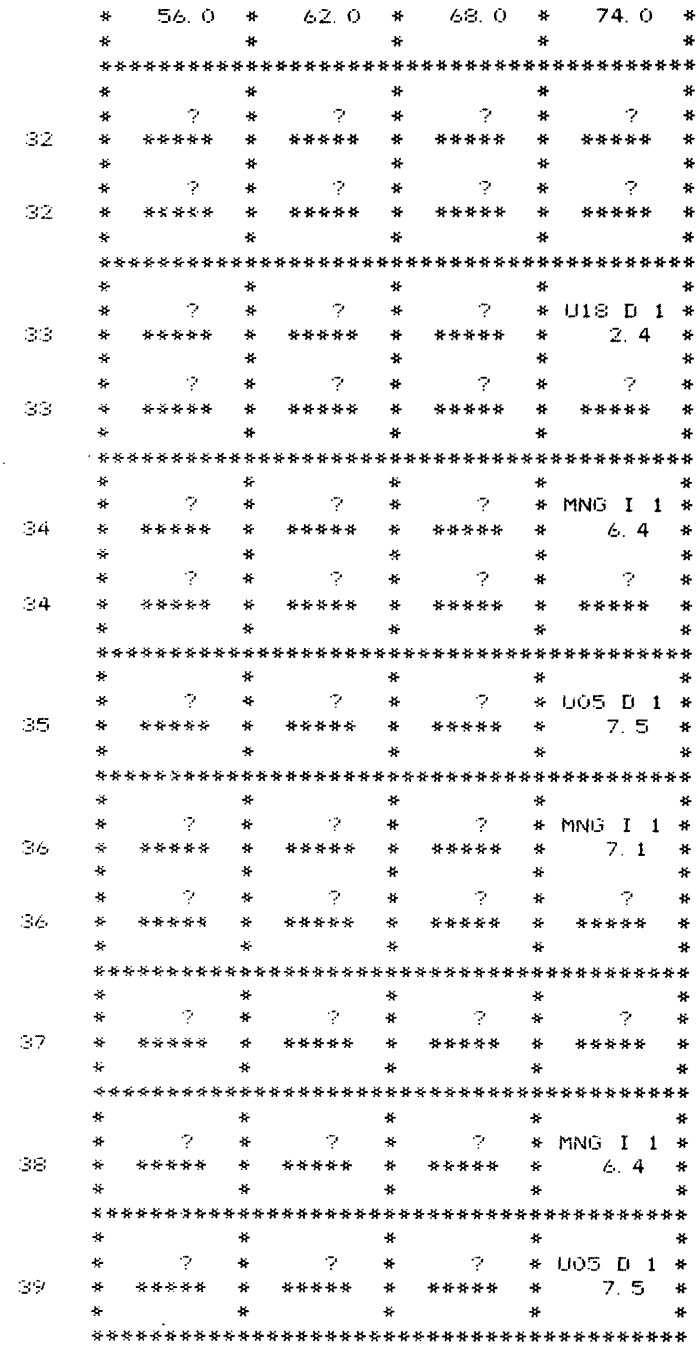
```
      *    56.0  *    62.0  *    68.0  *    74.0  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INC D 1  * CHD I 1  * INJ D 1  * CBG D 1  *
1     *     8.3  *     5.2  *    -3.3  *    -1.6  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  * SNG I 1  *
1     *   *****  *   *****  *   *****  *     2.7  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INE I 1  * CHC D 1  * IHA D 1  * ID2 D 1  *
2     *     2.3  *    -0.2  *    -6.1  *    -5.4  *
      *          *          *          *          *
      *       ?  *       ?  * INF I 1  *       ?  *
2     *   *****  *   *****  *    -3.8  *   *****  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * ING D 1  * CHB I 1  * INH D 1  *       ?  *
3     *     3.7  *     1.2  *    -0.5  *   *****  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  *       ?  *
3     *   *****  *   *****  *   *****  *   *****  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INI I 1  * CHA D 1  * INA I 1  * ID1 D 1  *
4     *     6.4  *     1.2  *     1.9  *     4.7  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  *       ?  *
4     *   *****  *   *****  *   *****  *   *****  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INC D 1  * CHD I 1  * INJ D 1  * CBG D 1  *
5     *     8.3  *     5.2  *    -3.3  *    -2.1  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  * SNG I 1  *
5     *   *****  *   *****  *   *****  *     2.7  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INE I 1  * CHC D 1  * IHA D 1  * ID2 D 1  *
6     *     2.2  *    -0.4  *    -8.0  *    -5.7  *
      *          *          *          *          *
      *       ?  *       ?  * INF I 1  * LAO I 1  *
6     *   *****  *   *****  *    -3.9  *    -5.2  *
      *          *          *          *          *
      ****************************************************
```

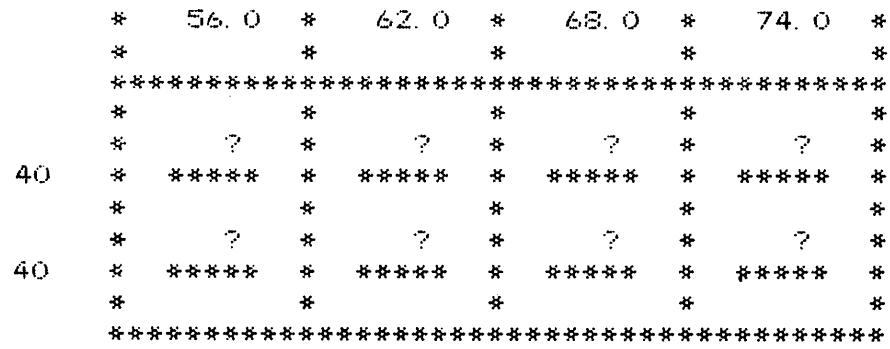
```
      *    56.0  *    62.0  *    68.0  *    74.0  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * ING D 1  * CHB I 1  * INH D 1  *       ?  *
7     *     3.7  *     1.2  *    -0.5  *   *****  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  *       ?  *
7     *   *****  *   *****  *   *****  *   *****  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INI I 1  * CHA D 1  * INA I 1  * LAO I 1  *
      * INC D 1  * CHD I 1  * INJ D 1  * CBG D 1  *
9     *     8.3  *     4.8  *    -3.3  *    -2.1  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  * SNG I 1  *
9     *   *****  *   *****  *   *****  *     2.7  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INE I 1  * CHC D 1  * IHA D 1  * ID2 D 1  *
10    *     2.2  *    -0.4  *    -8.0  *    -5.7  *
      *          *          *          *          *
      *       ?  *       ?  * INF I 1  * LAO I 1  *
10    *   *****  *   *****  *    -3.9  *    -5.2  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * ING D 1  * CHB I 1  * INH D 1  *       ?  *
11    *     3.7  *     0.4  *    -0.3  *   *****  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  *       ?  *
11    *   *****  *   *****  *   *****  *   *****  *
      *          *          *          *          *
      ****************************************************
      *          *          *          *          *
      * INI I 1  * CHA D 1  * INA I 1  * LAO I 1  *
12    *     6.3  *     1.1  *    -3.6  *    -2.9  *
      *          *          *          *          *
      *       ?  *       ?  *       ?  * ID1 D 1  *
12    *   *****  *   *****  *   *****  *     4.7  *
      *          *          *          *          *
      ****************************************************
```

	56.0	62.0	68.0	74.0
	INC D 1	CH7 I 1	INJ D 1	CBG D 1
13	8.3	5.5	-3.3	-1.6
	?	?	?	SNG I 1
13	*****	*****	*****	2.8
	INE I 1	CH5 D 1	THA D 1	ID2 D 1
14	2.3	0.3	-6.0	-5.4
	?	?	INF I 1	?
14	*****	*****	-3.2	*****
	ING D 1	CHB I 1	INH D 1	BGD I 1
15	3.6	-3.8	-1.7	-4.0
	?	?	?	?
15	*****	*****	*****	*****
	IN1 I 1	CHA D 1	INA I 1	ID1 D 1
16	6.4	1.2	1.3	9.0
	?	?	?	?
16	*****	*****	*****	*****
	INB D 1	CH9 I 1	INK D 1	BGD I 1
17	-0.9	4.5	5.7	-0.1
	?	?	?	?
17	*****	*****	*****	*****
	IND I 1	CH6 D 1	INL I 1	BRM D 1
18	4.0	-2.0	-0.3	-1.3
	?	?	?	?
18	*****	*****	*****	*****

	56.0	62.0	68.0	74.0
	INB D 1	?	INK D 1	BGD I 1
19	6.9	*****	5.7	3.2
	IND I 1	?	INL I 1	BRM D 1
20	4.2	*****	0.3	1.9
	INB D 1	?	INK D 1	BGD I 1
21	7.6	*****	5.7	3.3
	?	?	?	?
21	*****	*****	*****	*****
	IND I 1	CH4 D 1	INL I 1	BRM D 1
22	3.6	3.9	0.2	1.8
	?	?	?	?
22	*****	*****	*****	*****
	INB D 1	?	INK D 1	?
23	7.6	*****	5.7	*****
	?	?	?	?
23	*****	*****	*****	*****
	IND I 1	?	INL I 1	BRM D 1
24	4.2	*****	0.3	1.9
	?	?	?	?
24	*****	*****	*****	*****


56.0
62.0
68.0
74.0
BGD I 1
3.3
U19 D 1
3.8
MNG I 1
6.2
U05 D 1
7.5
U18 D 1
2.4
MNG I 1
6.4
U05 D 1
7.5
25
26
27
28
29
30
31


56.0
62.0
68.0
74.0
U18 D 1
2.4
MNG I 1
6.4
U05 D 1
7.5
MNG I 1
7.1
MNG I 1
6.4
U05 D 1
7.5
32
33
34
35
36
37
38
39


56.0
62.0
68.0
74.0
40
40

APPENDICE 2 - Annexe 3
(Partie Centrale)

ANALYSE DES BROUILLAGES DES PAYS A MARGE NEGATIVE

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
UGA	2	-0.8	ETH	30.5				
UGA	6	-0.8	ETH	30.5				
UGA	10	-0.8	ETH	30.5				
UGA	14	-0.8	ETH	30.5				
UGA	18	-0.7	ETH	30.5				
NOR	21	-1.0	U01	30.2				
NOR	25	-1.5	U01	30.2	U03	38.9		
NOR	29	-1.5	U01	30.2	U03	38.9		
NOR	33	-1.5	U01	30.2	U03	38.9		
JOR	21	-1.2	GRC	36.2	TGK	35.3	U01	33.2
JOR	25	-1.5	GRC	36.2	TGK	35.3	U01	33.2
JOR	29	-1.5	GRC	36.2	TGK	35.3	U01	33.2
JOR	33	-1.5	GRC	36.2	TGK	35.3	U01	33.2
LSO	22	-2.7	YMS	28.4				
LSO	26	-2.7	YMS	28.4				
LSO	30	-2.7	YMS	28.4				
LSO	34	-2.7	YMS	28.4				
TUR	4	-1.9	U02	33.0	ARU	31.9		
TUR	8	-1.9	U02	33.0	ARU	31.9		
TUR	12	-1.9	U02	33.0	ARU	31.9		
TUR	16	-1.9	U02	33.0	ARU	31.9		
U01	21	-2.4	GRC	36.8	NOR	29.8		
U01	25	-4.0	GRC	36.8	NOR	29.8	U03	32.1
U01	29	-4.0	GRC	36.8	NOR	29.8	U03	32.1
U01	33	-4.0	GRC	36.8	NOR	29.8	U03	32.1
ETH	2	-1.2	UGA	29.9				
ETH	6	-1.2	UGA	29.9				
ETH	10	-1.2	UGA	29.9				
ETH	14	-1.2	UGA	29.9				
ETH	18	-1.2	UGA	29.9				
YMS	22	-3.6	LSO	36.0	YEM	28.2		
YMS	26	-3.6	LSO	36.0	YEM	28.2		
YMS	30	-3.6	LSO	36.0	YEM	28.2		
YMS	34	-3.6	LSO	36.0	YEM	28.2		
YMS	38	-2.9	YEM	28.2				
KWT	2	-3.3	IRN	27.9				
KWT	6	-3.3	IRN	27.9				
KWT	10	-3.3	IRN	27.9				
KWT	14	-3.3	IRN	27.9				
YEM	22	-3.9	YMS	27.1				
YEM	26	-3.9	YMS	27.1				
YEM	30	-3.9	YMS	27.1				
YEM	34	-3.9	YMS	27.1				
YEM	38	-3.9	YMS	27.1				
U03	29	-2.1	U01	31.8	U18	32.2		
U03	33	-2.1	U01	31.8	U18	32.2		
PAZ	11	-0.0	CHB	33.5	INH	34.7		

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB					
PA2	15	-0.0	CHB	33.5	INH	34.7		
PA5	17	-0.4	INB	30.7				
NFL	1	-2.2	PA1	31.0	CHD	36.0	INJ	36.6
NFL	5	-2.2	PA1	31.0	CHD	36.0	INJ	36.6
NFL	9	-2.2	PA1	31.0	CHD	36.0	INJ	36.6
AFZ	4	-0.7	CHA	31.0				
AFZ	8	-0.8	CHA	31.0				
AFZ	12	-0.8	CHA	31.0				
AFZ	16	-0.7	CHA	31.0				
IRN	2	-3.3	KWT	28.1				
IRN	6	-3.3	KWT	28.1				
IRN	10	-3.3	KWT	28.1				
IRN	14	-3.3	KWT	28.1				
INB	17	-0.9	PA5	30.2				
CHC	2	-0.2	THA	31.5				
CHC	6	-0.4	THA	31.5				
CHC	10	-0.4	THA	31.5				
CHB	15	-3.8	PA2	35.8	BGD	29.3	INH	33.4
CH6	18	-2.0	BRM	29.4				
IDZ	2	-5.4	THA	25.6				
IDZ	6	-5.7	THA	25.6				
IDZ	10	-5.7	THA	25.6				
IDZ	14	-5.4	THA	25.6				
LAO	6	-5.2	IDZ	30.0	THA	28.1		
LAO	8	-2.9	ID1	33.9	INA	29.5		
LAO	10	-5.2	IDZ	30.0	THA	28.1		
LAO	12	-2.9	ID1	33.9	INA	29.5		
BGD	15	-4.0	CHB	28.2	INH	33.1		
BGD	17	-0.1	INK	35.1	CH9	33.1		
INJ	2	-3.3	THA	12.1				
INJ	6	-3.3	THA	12.1				
INJ	10	-3.3	THA	12.1				
INJ	14	-3.3	THA	12.1				
THA	2	-6.1	IDZ	26.7	INF	30.3		
THA	6	-8.0	IDZ	26.7	LAO	27.4	INF	30.3
THA	10	-8.0	IDZ	26.7	LAO	27.4	INF	30.3
THA	14	-6.0	IDZ	26.7	INF	30.3		
INF	2	-3.8	CHC	36.0	INE	34.8	THA	30.1
INF	6	-3.9	CHC	36.0	INE	34.8	THA	30.1
INF	10	-3.9	CHC	36.0	INE	34.8	THA	30.1
INF	14	-3.2	IRN	37.2	INE	34.8	THA	30.1
INH	3	-0.5	ING	34.5	CHB	33.4		
INH	7	-0.5	ING	34.5	CHB	33.4		
INH	11	-0.3	ING	34.5	CHB	33.4		
INH	15	-1.7	ING	34.5	CHB	33.4	BGD	35.1
INA	8	-3.6	CHA	34.6	LAO	28.8		
INA	12	-3.6	CHA	34.6	LAO	28.8		
BRM	18	-1.3	CH6	32.6	INL	33.0		
INL	18	-0.3	INL	35.6	CH6	39.6	BRM	33.3
CBG	2	-1.6	IDZ	14.8	THA	19.0		
CBG	6	-2.1	IDZ	14.8	LAO	22.8	THA	19.0
CBG	10	-2.1	IDZ	14.8	LAO	22.8	THA	19.0
CBG	14	-1.6	IDZ	14.8	THA	19.0		

APPENDICE 3/Annexe 1
(Partie Est)

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
ING	11.13	77.85	97.	0.64	0.68	22.1
IN1	19.57	76.22	161.	0.79	0.79	23.8
INB	33.43	75.94	152.	0.54	0.76	22.2
IND	25.05	72.98	35.	0.74	0.91	24.1
CHD	27.88	102.31	154.	0.79	1.28	26.3
INK	11.24	93.47	177.	0.30	1.04	19.9
CHC	36.61	98.26	100.	0.80	1.38	26.6
CHB	31.45	88.49	111.	0.72	1.74	26.9
CHA	40.53	85.02	90.	1.02	1.76	28.7
CH7	30.12	103.51	131.	0.55	1.09	24.1
CH5	37.91	101.02	136.	0.41	1.39	24.0
CH9	25.20	101.53	144.	0.54	0.93	23.1
CH6	35.40	95.66	103.	0.57	1.05	23.9
INC	11.26	72.75	167.	0.30	0.63	18.5
INE	15.97	78.45	58.	0.69	1.04	24.3
ID2	-3.71	103.91	157.	0.86	0.98	25.0
LAO	17.98	103.62	147.	0.40	1.02	21.9
ID1	1.39	98.92	147.	0.49	1.03	22.8
BGD	23.60	90.37	140.	0.42	0.73	20.7
CH4	38.83	105.03	163.	0.30	0.92	20.2
INJ	20.54	84.72	60.	0.43	0.80	21.2
IHA	13.37	100.77	170.	0.72	1.41	25.9
INF	27.75	79.38	128.	0.58	1.07	23.7
INH	22.57	79.41	128.	0.69	1.18	24.8
INA	26.26	92.37	160.	0.70	0.80	23.4
BRM	19.15	97.11	175.	0.74	1.79	27.0
INL	24.51	86.07	136.	0.45	0.78	21.3
CBG	12.56	104.97	94.	0.48	0.52	19.9
SNG	1.37	103.83	59.	0.30	0.30	12.9
U19	63.40	98.36	116.	0.33	0.98	23.3
MNG	46.64	102.25	95.	0.61	1.93	27.0
U05	57.65	88.90	129.	0.84	1.54	28.1
U18	51.58	94.25	104.	0.30	0.83	19.9
ML2	3.92	114.16	51.	0.54	1.07	23.5
CHJ	39.28	116.08	160.	0.40	0.60	20.2
ML1	4.14	102.09	134.	0.41	0.80	20.8
CH8	26.79	106.68	88.	0.47	0.57	20.2
CHK	37.43	112.21	6.	0.38	0.53	19.2
CHL	41.89	111.43	70.	0.60	0.79	23.1
ID4	-1.44	111.07	106.	0.61	0.79	22.6

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
CHG	42. 04	123. 01	7.	0. 93	2. 41	29. 8
CHH	31. 32	118. 33	3.	0. 82	1. 32	26. 4
CHY	27. 43	111. 59	149.	0. 43	0. 61	20. 2
CHZ	23. 83	108. 57	92.	0. 53	0. 74	21. 9
CHE	38. 05	111. 86	169.	0. 87	1. 30	26. 8
CH3	35. 13	108. 72	4.	0. 44	0. 71	21. 1
CHF	27. 30	109. 44	4.	0. 87	1. 07	25. 6
CHW	33. 94	113. 77	139.	0. 40	0. 60	19. 9
CHX	30. 84	111. 86	109.	0. 41	0. 71	20. 7
CHP	36. 46	118. 52	75.	0. 38	0. 58	19. 5
CHR	32. 00	117. 27	159.	0. 37	0. 60	19. 5
CHQ	32. 97	119. 57	118.	0. 32	0. 67	19. 3
CHU	25. 93	118. 15	21.	0. 42	0. 51	19. 2
CHS	29. 19	120. 46	160.	0. 42	0. 48	18. 9
CHZ	21. 96	112. 21	55.	0. 61	0. 92	23. 3
ID7	-8. 89	122. 00	92.	0. 56	0. 96	23. 2
ID6	-1. 71	122. 13	21.	0. 57	1. 05	23. 7
ID3	-7. 73	111. 01	94.	0. 53	0. 98	22. 9
ID5	-0. 37	116. 21	17.	0. 54	0. 99	23. 1
KRE	39. 78	127. 04	56.	0. 41	0. 50	19. 3
KUR	36. 22	127. 90	11.	0. 32	0. 39	16. 9
AU2	-18. 62	133. 18	8.	0. 85	1. 79	27. 7
CHT	27. 44	115. 71	5.	0. 47	0. 57	20. 2
CHN	43. 76	124. 40	122.	0. 36	0. 99	21. 9
CH1	12. 95	113. 77	24.	1. 15	1. 85	29. 0
CHO	48. 11	124. 89	123.	0. 46	1. 34	24. 6
CHV	23. 85	121. 49	38.	0. 41	0. 57	19. 6
CHM	41. 75	121. 12	124.	0. 39	0. 76	21. 0
PHL	10. 52	122. 61	177.	0. 82	1. 84	27. 5
CHI	21. 14	115. 27	76.	1. 25	1. 44	28. 4
UO6	57. 26	112. 82	76.	0. 86	1. 39	27. 6
UZO	53. 46	108. 23	70.	0. 39	1. 08	22. 8
AU1	-24. 64	121. 56	28.	1. 35	2. 17	30. 5
AU3	-30. 31	135. 07	12.	0. 94	1. 32	26. 9
AU1	-24. 56	122. 15	20.	1. 56	2. 04	30. 8
AU3	-30. 34	135. 46	161.	1. 20	1. 28	27. 7
AU2	-18. 61	133. 46	7.	1. 27	1. 55	28. 6
ID8	-1. 85	128. 21	15.	0. 65	0. 98	23. 8
ID9	-4. 33	135. 42	172.	0. 93	1. 00	25. 6
FJI	-17. 92	179. 45	148.	0. 49	0. 52	19. 9

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
AU5	-21.55	144.02	163.	1.36	1.91	29.9
AU6	-31.98	146.78	60.	0.85	1.28	26.3
AU4	-38.45	145.02	124.	0.67	0.82	23.4
AU5	-21.55	144.12	155.	1.33	2.00	30.0
NRU	-0.50	166.90	2.	0.30	0.30	13.0
AU6	-31.98	146.84	70.	0.87	1.31	26.5
J	31.58	134.53	32.	1.65	1.76	30.6
PNG	-6.79	144.18	29.	0.81	1.30	26.1
NIU	-19.00	-169.87	3.	0.30	0.30	12.9
CKH	-19.93	-159.81	117.	0.30	0.78	19.4
CKN	-11.08	-162.18	68.	0.41	0.99	21.7
TKL	-8.95	171.84	55.	0.30	0.34	14.9
NZL	-40.94	172.70	21.	0.59	1.33	25.3
SMO	-13.78	-172.01	100.	0.30	0.34	14.9
TON	-18.13	-174.72	6.	0.36	0.71	19.8
AU4	-38.46	145.08	126.	0.64	0.89	23.5
PNG	-6.78	144.32	51.	0.94	1.41	26.9
NCL	-20.92	165.90	121.	0.36	0.57	19.0
WAL	-14.03	183.14	70.	0.30	0.37	15.8
NHB	-16.40	168.03	155.	0.30	0.95	20.0
U07	54.18	136.95	22.	1.12	1.57	29.0
UCE	-16.36	-145.01	87.	1.77	2.17	31.5
U08	55.49	155.33	41.	1.18	1.45	29.1
U21	65.39	169.41	132.	0.30	1.07	23.7

APPENDICE 3/Annexe 2
(Partie Est)

	-160.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0	98.0	104.0
	OCE D 1	INC D 1	CHD I 1	INJ D 1	CBG D 1	ML2 I 1	ID7 I 1	CHG D 1	?	AU1 D 1
1	6.4	8.3	2.4	-3.3	-1.6	2.0	2.2	1.0	*****	4.0
	?	?	?	?	SNG I 1	?	?	?	?	?
1	*****	*****	*****	*****	-4.0	*****	*****	*****	*****	*****
	?	INE I 1	CHC D 1	THA D 1	ID2 D 1	?	ID6 D 1	CHH I 1	PHL D 1	AU3 I 1
2	*****	3.2	-1.1	-6.1	-5.4	*****	-3.8	-0.5	-1.9	-0.3
	?	?	?	INF I 1	?	?	?	?	?	?
2	*****	*****	*****	-3.0	*****	*****	*****	*****	*****	*****
	?	ING D 1	CHB I 1	INH D 1	?	CHJ D 1	ID5 I 1	CHI D 1	?	KOR I 1
3	*****	3.6	1.7	-0.2	*****	1.7	4.3	3.3	*****	-2.2
	?	?	?	?	?	ML1 I 1	?	?	?	AU1 D 1
3	*****	*****	*****	*****	*****	5.5	*****	*****	*****	-0.3
	?	INI I 1	CHA D 1	INA I 1	ID1 D 1	?	ID3 D 1	CHH I 1	PHL D 1	AU3 I 1
4	*****	7.9	5.6	1.9	4.6	*****	2.3	1.5	1.6	-0.3
	OCE D 1	INC D 1	CHD I 1	INJ D 1	CBG D 1	ML2 I 1	ID7 I 1	CHG D 1	?	?
5	6.6	8.3	2.4	-3.3	-2.1	2.0	2.0	1.1	*****	*****
	?	?	?	?	SNG I 1	?	?	?	?	?
5	*****	*****	*****	*****	-4.0	*****	*****	*****	*****	*****
	?	INE I 1	CHC D 1	THA D 1	ID2 D 1	?	ID6 D 1	CHH I 1	PHL D 1	?
6	*****	3.2	-1.2	-8.0	-5.7	*****	-3.7	-0.5	-1.9	*****
	?	?	?	INF I 1	LAO I 1	?	?	?	?	?
6	*****	*****	*****	-3.1	-5.2	*****	*****	*****	*****	*****

* -160.0 *	56.0 *	62.0 *	68.0 *	74.0 *	80.0 *	86.0 *	92.0 *	98.0 *	104.0 *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	ING D 1 *	CHB I 1 *	INH D 1 *	? *	ML1 I 1 *	ID5 I 1 *	CHI D 1 *	? *	KOR I 1 *
7 * ***** *	3.6 *	1.7 *	-0.2 *	***** *	5.8 *	4.0 *	3.2 *	***** *	2.4 *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	? *	? *	? *	? *	CHK D 1 *	? *	? *	? *	? *
7 * ***** *	***** *	***** *	***** *	***** *	1.2 *	***** *	***** *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	INI I 1 *	CHA D 1 *	INA I 1 *	LAO I 1 *	? *	ID3 D 1 *	CHP I 1 *	PHL D 1 *	? *
8 * ***** *	7.9 *	5.6 *	-3.6 *	-3.0 *	***** *	2.4 *	6.0 *	4.8 *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	? *	? *	? *	ID1 D 1 *	? *	? *	? *	? *	? *
8 * ***** *	***** *	***** *	***** *	3.2 *	***** *	***** *	***** *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* OLE D 1 *	INC D 1 *	CHD I 1 *	INJ D 1 *	CBG D 1 *	ML2 I 1 *	ID7 I 1 *	CHG D 1 *	ID9 I 1 *	? *
9 * 0.0 *	8.3 *	2.4 *	-3.3 *	-2.1 *	1.9 *	-2.2 *	1.0 *	-1.2 *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	? *	? *	? *	SNG I 1 *	? *	? *	? *	? *	? *
9 * ***** *	***** *	***** *	***** *	-4.0 *	***** *	***** *	***** *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	INE I 1 *	CHC D 1 *	IHA D 1 *	ID2 D 1 *	CH8 I 1 *	ID6 D 1 *	CHR I 1 *	PHL D 1 *	? *
10 * ***** *	3.2 *	-1.0 *	-8.0 *	-5.7 *	-7.4 *	-3.7 *	0.2 *	0.3 *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	? *	? *	INF I 1 *	LAO I 1 *	? *	? *	? *	? *	? *
10 * ***** *	***** *	***** *	-3.1 *	-8.6 *	***** *	***** *	***** *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	ING D 1 *	CHB I 1 *	INH D 1 *	? *	ML1 I 1 *	ID5 I 1 *	CHI D 1 *	ID8 I 1 *	KOR I 1 *
11 * ***** *	3.6 *	1.2 *	-0.2 *	***** *	4.1 *	2.8 *	3.3 *	1.6 *	2.0 *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	? *	? *	? *	? *	CHL D 1 *	? *	? *	? *	? *
11 * ***** *	***** *	***** *	***** *	***** *	3.9 *	***** *	***** *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	INI I 1 *	CHA D 1 *	INA I 1 *	LAO I 1 *	CHY I 1 *	ID3 D 1 *	CH0 I 1 *	? *	? *
12 * ***** *	7.9 *	5.6 *	-3.7 *	-3.2 *	1.7 *	2.9 *	1.9 *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
* ? *	? *	? *	? *	ID1 D 1 *	? *	? *	? *	? *	? *
12 * ***** *	***** *	***** *	***** *	3.2 *	***** *	***** *	***** *	***** *	***** *
* *	* *	* *	* *	* *	* *	* *	* *	* *	* *
**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

	-160.0	56.0	62.0	68.0	74.0	80.0			? 0	98.0	104.0	
	OCE D 1	INC D 1	CH7 I 1	INJ D 1	CBG D 1	ML2 I 1	ID7 I 1	CHU D 1	ID9 I 1	?		
13	0.0	8.3	5.0	-3.3	-1.6	2.2	-2.1	0.2	-2.2	*****		
	?	?	?	?	SNG I 1	?	?	?	?	?	?	
13	*****	*****	*****	*****	-4.0	*****	*****	*****	*****	*****	*****	
	?	INE I 1	CH5 D 1	THA D 1	ID2 D 1	CH2 I 1	ID6 D 1	CH9 I 1	?	KRE D 1		
14	*****	3.3	0.2	-6.5	-5.4	0.3	6.3	1.5	*****	4.2		
	?	?	?	INF I 1	?	?	?	?	?	?	?	
14	*****	*****	*****	-2.3	*****	*****	*****	*****	*****	*****	*****	
	?	ING D 1	CHB I 1	INH D 1	BGD I 1	ML1 I 1	ID5 I 1	CHZ D 1	ID8 I 1	KOR I 1		
15	*****	3.6	-3.7	-1.6	-4.1	2.1	3.3	-0.3	0.1	0.1		
	?	?	?	?	?	CHE D 1	?	?	?	AU2 D 1		
15	*****	*****	*****	*****	*****	0.9	*****	*****	*****	1.8		
	?	INI I 1	CHA D 1	INA I 1	ID1 D 1	?	ID3 D 1	CHT I 1	?	KRE D 1		
16	*****	8.0	4.1	1.3	5.6	*****	2.9	6.4	*****	4.2		
	?	INB D 1	CH9 I 1	INK D 1	BGD I 1	CH3 D 1	ID4 I 1	CHN D 1	ID9 I 1	AU2 D 1		
17	*****	4.4	1.1	5.7	-0.2	2.7	8.1	0.7	-1.3	-1.6		
	?	IND I 1	CH6 D 1	INL I 1	BRM D 1	CHF I 1	?	?	?	KRE D 1		
18	*****	4.0	-2.9	-0.4	-3.3	-0.9	*****	*****	*****	5.6		
	?	INB D 1	?	INK D 1	BGD I 1	CHE D 1	ID4 I 1	CH1 D 1	ID8 I 1	KOR I 1		
19	*****	6.9	*****	5.7	3.2	3.2	-0.8	-0.8	6.7	1.8		
	?	IND I 1	?	INL I 1	BRM D 1	CHF I 1	?	?	?	KRE D 1		
20	*****	4.2	*****	0.2	-1.6	0.5	*****	*****	*****	6.7		
	?	INB D 1	?	INK D 1	BGD I 1	CHW D 1	ID4 I 1	CHO D 1	ID9 I 1	?		
21	*****	7.6	*****	5.7	3.2	7.0	13.8	-1.2	-0.8	*****		

	-160.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0	98.0	104.0		
	?	IND I 1	CH4 D 1	INL I 1	BRM D 1	CHF I 1	?	CHV D 1	?	KRE D 1		
22	*****	4.2	0.9	0.2	-1.6	-1.4	*****	2.0	*****	7.5		
	?	INB D 1	?	INK D 1	?	CHE D 1	ID4 I 1	?	ID8 I 1	?		
23	*****	7.6	*****	5.7	*****	4.8	14.1	*****	7.7	*****		
	?	IND I 1	?	INL I 1	BRM D 1	CHX I 1	?	CHM D 1	?	?		
24	*****	4.2	*****	0.2	1.8	6.4	*****	2.5	*****	*****		
	?	?	?	?	BGD I 1	?	?	?	?	?		
25	*****	*****	*****	*****	3.3	*****	*****	*****	*****	*****		
	?	?	?	?	U19 D 1	?	?	?	?	?		
25	*****	*****	*****	*****	4.4	*****	*****	*****	*****	*****		
	?	?	?	?	MNG I 1	?	?	?	?	?		
26	*****	*****	*****	*****	0.8	*****	*****	*****	*****	*****		
	?	?	?	?	U05 D 1	?	?	?	?	?		
27	*****	*****	*****	*****	7.6	*****	*****	*****	*****	*****		
	?	?	?	?	?	?	?	?	?	?		
28	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		
	?	?	?	?	U18 D 1	?	?	?	?	?		
29	*****	*****	*****	*****	7.7	*****	*****	*****	*****	*****		
	?	?	?	?	MNG I 1	?	?	?	?	?		
30	*****	*****	*****	*****	0.8	*****	*****	*****	*****	*****		
	?	?	?	?	U05 D 1	?	?	?	?	?		
31	*****	*****	*****	*****	7.6	*****	*****	*****	*****	*****		

	-160.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0	98.0	104.0
	?	?	?	?	?	?	?	?	?	?
32	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	U18 D 1	?	?	?	?	?
33	*****	*****	*****	*****	8.2	*****	*****	*****	*****	*****
	?	?	?	?	MNG I 1	?	?	?	?	?
34	*****	*****	*****	*****	7.2	*****	*****	*****	*****	*****
	?	?	?	?	U05 D 1	?	?	?	?	?
35	*****	*****	*****	*****	7.2	*****	*****	*****	*****	*****
	?	?	?	?	MNG I 1	?	?	?	?	?
36	*****	*****	*****	*****	-0.3	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?	?
37	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	MNG I 1	?	?	?	?	?
38	*****	*****	*****	*****	7.2	*****	*****	*****	*****	*****
	?	?	?	?	U05 D 1	?	?	?	?	?
39	*****	*****	*****	*****	8.1	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?	?
40	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	J I 1	?	?	?	?	?	?	?
1	1.3	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?
1	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	AU5 I 1	NCL D 1	FJI I 1	?	?	?
2	*****	*****	-0.0	8.6	13.5	*****	*****	*****
	?	?	?	?	?	?	?	?
2	*****	*****	*****	*****	*****	*****	*****	*****
	PNG I 1	AUZ D 1	NRU D 1	WAL I 1	CKH D 1	?	TON I 1	
3	1.6	-1.8	10.8	2.0	17.3	*****	0.6	
	?	?	?	?	?	?	?	?
3	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	AU5 I 1	NHB D 1	?	SMO I 1	?	
4	*****	*****	-0.0	13.9	*****	13.0	*****	
	J I 1	AU1 D 1	?	?	?	NZL D 1	?	
5	1.3	4.4	*****	*****	*****	17.3	*****	
	?	?	?	?	?	?	?	?
5	*****	*****	*****	*****	*****	*****	*****	*****
	?	AU3 I 1	?	NCL D 1	FJI I 1	?	?	?
6	*****	7.6	*****	15.9	13.5	*****	*****	*****
	?	?	?	?	?	?	?	?
6	*****	*****	*****	*****	*****	*****	*****	*****

	110.0	128.0	134.0	140.0	152.0	158.0	170.0	
	PNG I 1	AU1 D 1	NRU D 1	WAL I 1	CKH D 1	?	TON I 1	
7	11.0	7.6	10.9	2.0	17.6	*****	0.6	
	?	?	?	?	?	?	?	
7	*****	*****	*****	*****	*****	*****	*****	
	?	AU3 I 1	?	NHB D 1	?	SMO I 1	?	
8	*****	7.6	*****	18.0	*****	13.0	*****	
	?	?	?	?	?	?	?	
8	*****	*****	*****	*****	*****	*****	*****	
	J I 1	AU1 D 1	?	?	CKN D 1	NZL D 1	?	
9	1.3	3.6	*****	*****	2.6	10.9	*****	
	?	?	?	?	?	?	?	
9	*****	*****	*****	*****	*****	*****	*****	
	?	AU3 I 1	?	NCL D 1	FJI I 1	?	?	
10	*****	7.6	*****	16.1	13.5	*****	*****	
	?	?	?	?	?	?	?	
10	*****	*****	*****	*****	*****	*****	*****	
	PNG I 1	AU2 D 1	NRU D 1	WAL I 1	CKH D 1	?	TON I 1	
11	2.5	1.5	10.8	2.0	17.4	*****	0.6	
	?	?	?	?	?	?	?	
11	*****	*****	*****	*****	*****	*****	*****	
	?	AU5 I 1	?	NHB D 1	?	SMO I 1	?	
12	*****	7.8	*****	13.5	*****	13.0	*****	
	?	?	?	?	?	?	?	
12	*****	*****	*****	*****	*****	*****	*****	

	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	J I 1	AU2 D 1	?	?	CKN D 1	NZL D 1	?
13	6.4	-0.3	*****	*****	2.7	11.0	*****
	?	?	?	?	?	?	?
13	*****	*****	*****	*****	*****	*****	*****
	?	AU5 I 1	?	NCL D 1	?	?	?
14	*****	8.2	*****	8.0	*****	*****	*****
	?	?	?	?	?	?	?
14	*****	*****	*****	*****	*****	*****	*****
	?	?	AU6 D 1	WAL I 1	CKH D 1	?	TON I 1
15	*****	*****	4.0	2.0	17.2	*****	0.6
	?	?	?	?	?	?	?
15	*****	*****	*****	*****	*****	*****	*****
	?	AU5 I 1	AU4 I 1	NHB D 1	?	SMU I 1	?
16	*****	-3.7	-8.2	12.9	*****	13.0	*****
	J I 1	?	AU6 D 1	?	CKN D 1	NZL D 1	?
17	7.6	*****	3.9	*****	11.4	9.9	*****
	?	?	AU4 I 1	?	?	?	?
18	*****	*****	7.5	*****	*****	*****	*****
	?	AU6 D 1	NRU D 1	U08 D 1	IKL D 1	?	?
19	*****	7.7	9.4	7.8	17.6	*****	*****
	?	AU4 I 1	?	?	NIU I 1	?	?
20	*****	7.5	*****	*****	13.5	*****	*****
	?	AU6 D 1	PNG I 1	U07 D 1	CKN D 1	?	?
21	*****	7.7	-0.4	1.8	17.0	*****	*****

	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	?	AU4 I 1	?	?	?	?	?
22	*****	7.5	*****	*****	*****	*****	******
	?	AU6 D 1	PNG I 1	U08 D 1	TKL D 1	?	?
23	*****	7.7	10.7	8.2	17.5	*****	******
	U06 D 1	AU4 I 1	?	?	NIU I 1	?	?
24	6.5	7.5	*****	*****	24.9	*****	******
	?	?	?	U07 D 1	?	?	?
25	*****	*****	*****	0.9	*****	*****	******
	?	?	?	?	?	?	?
25	*****	*****	*****	*****	*****	*****	******
	U20 D 1	?	?	?	?	?	?
26	0.5	*****	*****	*****	*****	*****	******
	?	?	?	U08 D 1	?	?	?
27	*****	*****	*****	6.8	*****	*****	******
	U06 D 1	?	?	?	?	?	?
28	14.6	*****	*****	*****	*****	*****	******
	?	?	?	U07 D 1	?	?	?
29	*****	*****	*****	15.6	*****	*****	******
	U20 D 1	?	?	?	?	?	?
30	0.5	*****	*****	*****	*****	*****	******
	?	?	?	U08 D 1	?	?	?
31	*****	*****	*****	6.8	*****	*****	******

	110.0	128.0	134.0	140.0	152.0	158.0	170.0	
	U06 D 1	?	?	?	?	?	?	?
32	14.6	*****	*****	*****	*****	*****	*****	******
	?	?	?	U07 D 1	?	?	?	?
33	*****	*****	*****	15.6	*****	*****	*****	******
	?	?	?	?	?	?	?	?
34	*****	*****	*****	*****	*****	*****	*****	******
	?	?	?	U21 D 1	?	?	?	?
35	*****	*****	*****	9.1	*****	*****	*****	******
	U06 D 1	?	?	?	?	?	?	?
36	0.4	*****	*****	*****	*****	*****	*****	******
	?	?	?	U07 D 1	?	?	?	?
37	*****	*****	*****	15.0	*****	*****	*****	******
	?	?	?	?	?	?	?	?
38	*****	*****	*****	*****	*****	*****	*****	******
	?	?	?	U21 D 1	?	?	?	?
39	*****	*****	*****	9.1	*****	*****	*****	******
	U06 D 1	?	?	?	?	?	?	?
40	15.6	*****	*****	*****	*****	*****	*****	******

APPENDICE 3/Annexe 3
(Partie Est)

ANALYSE DES BROUILLAGES DES PAYS A MARGE NEGATIVE

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
CHC	2	-1.1	THA	31.5	CHH	36.9		
CHC	6	-1.2	THA	31.5	CHH	36.9		
CHC	10	-1.0	THA	31.5	CH8	38.2		
CHB	15	-3.7	BGD	29.3	INH	33.4	CHE	37.1
CH6	18	-2.9	BRM	29.4	CHF	35.2		
IDZ	2	-5.4	THA	25.6				
IDZ	6	-5.7	THA	25.6				
IDZ	10	-5.7	THA	25.6				
IDZ	14	-5.4	THA	25.6				
LAO	6	-5.2	IDZ	30.0	THA	28.1		
LAO	8	-3.0	ID1	33.9	INA	29.5		
LAO	10	-8.6	IDZ	30.0	THA	28.1	CH8	25.0
LAO	12	-3.2	ID1	33.9	INA	29.5		
BGD	15	-4.1	CHB	28.2	INH	33.1		
BGD	17	-0.2	INK	35.1	CH9	33.1		
INJ	2	-3.3	THA	12.1				
INJ	6	-3.3	THA	12.1				
INJ	10	-3.3	THA	12.1				
INJ	14	-3.3	THA	12.1				
THA	2	-6.1	IDZ	26.7	INF	30.3		
THA	6	-8.0	IDZ	26.7	LAO	27.4	INF	30.3
THA	10	-8.0	IDZ	26.7	LAO	27.4	INF	30.3
THA	14	-6.5	IDZ	26.7	INF	30.3	CHZ	33.9
INF	2	-3.0	CHC	36.0	INE	34.8	THA	30.1
INF	6	-3.1	CHC	36.0	INE	34.8	THA	30.1
INF	10	-3.1	CHC	36.0	INE	34.8	THA	30.1
INF	14	-2.3	INE	34.8	THA	30.1		
INH	3	-0.2	ING	34.5	CHB	33.4		
INH	7	-0.2	ING	34.5	CHB	33.4		
INH	11	-0.2	ING	34.5	CHB	33.4		
INH	15	-1.6	ING	34.5	CHB	33.4	BGD	35.1
INA	8	-3.6	CHA	34.6	LAO	28.8		
INA	12	-3.7	CHA	34.6	LAO	28.8		
BRM	18	-3.3	CH6	32.6	INL	33.0	CHF	32.0
BRM	20	-1.6	INL	33.0	CHF	32.0		
BRM	22	-1.6	INL	33.0	CHF	32.0		
INL	18	-0.4	IND	35.6	CH6	39.6	BRM	33.3
CBG	2	-1.6	IDZ	14.8	THA	19.0		
CBG	6	-2.1	IDZ	14.8	LAO	22.8	THA	19.0
CBG	10	-2.1	IDZ	14.8	LAO	22.8	THA	19.0
CBG	14	-1.6	IDZ	14.8	THA	19.0		
SNG	1	-4.0	CBG	33.9	ML2	28.1		
SNG	5	-4.0	CBG	33.9	ML2	28.1		
SNG	9	-4.0	CBG	33.9	ML2	28.1		
SNG	13	-4.0	CBG	33.9	ML2	28.1		
MNG	36	-0.3	UO6	30.7				
CH8	10	-7.4	LAO	24.6	THA	32.4		

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)			
ID4	19	-0.8	CH1	30.4		
CHH	2	-0.5	CHC	34.3	PHL	33.3
CHH	6	-0.5	CHC	34.3	PHL	33.3
CHF	18	-0.9	CH6	35.8	BRM	31.6
CHF	22	-1.4	CH4	34.4	BRM	31.6
CHZ	15	-0.3	CHB	39.3	CHE	31.7
ID7	9	-2.2	AU1	33.7	ID9	30.8
ID7	13	-2.1	AU2	34.1	ID9	30.8
ID6	2	-3.8	PHL	27.7		
ID6	6	-3.7	PHL	27.7		
ID6	10	-3.7	PHL	27.7		
KUR	3	-2.2	CH1	34.0	AU1	30.9
AU2	17	-1.6	ID9	30.6	AU6	35.7
CH1	19	-0.8	ID4	31.2	CHE	37.6
CHU	21	-1.2	U07	29.9		
PHL	2	-1.9	CHH	32.9	ID6	31.7
PHL	6	-1.9	CHH	32.9	ID6	31.7
AU1	3	-0.3	AU2	31.2		
AU3	2	-0.3	AU5	30.9		
AU3	4	-0.3	AU5	30.9		
AU2	13	-0.3	ID7	34.4	ID9	33.3
AU2	3	-1.8	AU1	31.3	PNG	33.6
ID9	9	-1.2	ID7	30.8	AU1	37.4
ID9	13	-2.2	ID7	30.8	AU2	33.5
ID9	17	-1.3	AU2	29.8		
ID9	21	-0.8	PNG	30.3		
AU5	16	-3.7	AU4	27.4		
AU5	2	-0.0	AU3	31.1		
AU5	4	-0.0	AU3	31.1		
AU4	16	-8.2	AU5	22.8		
PNG	21	-0.4	ID9	30.7		

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. BT/37-E
28 January 1977
Original : English

WORKING GROUP 5A

Note by the Chairman of Working Group 5A

ANALYSIS OF THE PLANNING EXERCISE FROM SUB-GROUP 5A2 TO MAKE A PLAN FOR THE BROADCASTING SATELLITE SERVICE FOR REGIONS 1 AND 3

PLAN FOR MINIMUM OR BASE-LINE REQUIREMENTS

The attached example of a Region 1 and 3 Plan has been produced by Sub-Working Group 5A2 under the terms of reference approved by Working Group 5A. The resulting Plan has been analysed by the TDF (Télédiffusion de France) computer, the results of which are given in Annex 1, 2 and 3.

Annex 1 to these Appendices - gives the input geographical data which was fed to the computer. The TDF computer has a powerful beam optimization facility which has corrected automatically the beam shape for new orbital positions. For this reason the beams used will be slightly different for the majority of countries from those indicated by the IFRB. In fact they will be more accurate from the view point of calculating interference. It should be noted that the ellipses includes an allowance for beam pointing errors.

Annex 2 to these Appendices - gives a table which specifies the orbit positions (- means West and no sign means East), the frequency channel number (1 to 40) and the polarization. The polarization is given by the letter D (meaning direct) and I (meaning indirect) which is immediately after the country symbol. The letter, usually I, after the polarization indication can be ignored. The numerical values given in the table represent the number of decibels (or margin) above or below the required standard of protection of 31 dB.

Annex 3 to these Appendices - This summarises the negative margins in the Plan. That is the countries where the Plan has failed to meet the 31 dB agreed standard. For each such country, the countries which have contributed to that negative margin are indicated together with the carrier-to-interference ratio extracted from the interference matrix. The corresponding channel number is also given.

Important Notes :

1. The TDF computer is limited in the number of countries which can be processed in one analysis. For this reason the complete Region 1 and 3 Plan has been analyzed in 3 stages. First the most Western part of the Plan is analyzed.

ARCHIVES U.I.T. GENÈVE

Then the centre part of the Plan and finally the most Easterly part of the Plan. There is considerable overlap between the first and second sections and the second and third sections. This is to ensure all possible interference possibilities have been analyzed. But it also means that for many countries the same information is given in more than one section. Appendix 1 gives the most Western section, Appendix 2 the central section and Appendix 3 the Eastern section of the Plan. In each Appendix are three Annexes giving the information described above for each section of the Plan.

2. The orbit positions given in the Plan should all be within the guidelines laid down in the Document No. DL/15 approved by Working Group 5A. Where this is not the case the Chairman of the Sub-Group will declare this at the meeting of 5A and the Conciliation Group will then take-up the matter with the administrations concerned before the final Plan is constructed. The number of such countries is very small.

3. Where the orbit position given to a country does not correspond to the precise position asked for after publication of the orbit proposals of Sub-Working Groups 5A2 and 5A3, this is due entirely to the time factors. Delegations are reminded of the decision of Working Group 5A that only those changes should be incorporated which would not delay the production of this first example of a Plan.

4. Some unintentional errors may have arisen in the production of this planning example relating to the requirements of countries. Delegations are urged to study the Plan most carefully and bring to the notice of the IFRB any such errors before Monday at 6 p.m. It is most important that the construction of the final or definitive Plan is absolutely free of such errors.

5. The TDF computer uses country symbols which differ from the ITU approved list. The conversion from one set of symbols to the other is given in Document DT/38.

6. It is proposed to provide delegations with an IFRB analysis of the same Plan. This will differ slightly from the TDF analysis for the following reasons :

a) The IFRB programme has not used ellipses re-calculated for the new orbit positions.

b) The test points used in the TDF programme correspond to the service area polygon whereas the IFRB programme has used 3 (to shorten the computer running time) from the 6 test points given by delegations.

Thus it is important that delegations wishing to compare the results from this Working Group with the results of the second Plan produced by the other Working Group should do so on the basis of the analysis by the same computer.

7. For the Western section of the Plan, instead of showing all 40 channels, the results have been abbreviated. Thus, channel 1 really means channels 1, 5, 9, 13 and 17. The full interpretation is given below :

Channel indicated on computer print-out	Actual channels assigned to that country				
1	1	5	9	13	17
2	2	6	10	14	18
3	3	7	11	15	19
4	4	8	12	16	20
21	21	25	29	33	37
22	22	26	30	34	38
23	23	27	31	35	39
24	24	28	32	36	40

S.R. TEMPLE
Chairman of WG 5A

Appendices : 3 (each one with 3 Annexes)

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

PAGE INTENTIONALLY LEFT BLANK

5A2

APPENDICE 1/Annexe 1
(Partie Ouest)

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
GUI	10. 26	-11. 05	123.	0. 53	0. 79	22. 0
LBR	6. 67	-9. 36	136.	0. 34	0. 59	18. 8
SEN	14. 17	-14. 69	109.	0. 49	0. 73	21. 2
MWI	13. 28	-7. 38	101.	0. 53	0. 74	21. 7
GMB	13. 41	-15. 37	82.	0. 30	0. 51	16. 8
SRL	8. 60	-11. 84	156.	0. 32	0. 39	16. 7
GNP	12. 00	-15. 03	97.	0. 30	0. 45	16. 4
MWZ	19. 18	-0. 71	137.	0. 55	1. 09	23. 8
ICV	16. 05	-24. 01	126.	0. 34	0. 44	17. 4
CVE	43. 42	4. 47	127.	0. 75	1. 93	28. 0
CVI	41. 33	12. 22	154.	0. 43	1. 20	23. 6
MCO	45. 92	2. 62	136.	0. 48	1. 23	24. 1
I	41. 32	12. 30	155.	0. 49	1. 19	24. 0
HVO	12. 13	-1. 92	86.	0. 61	0. 75	22. 3
TGO	8. 68	0. 89	170.	0. 30	0. 75	18. 5
AND	42. 49	1. 62	87.	0. 30	0. 30	13. 4
MCO	43. 73	7. 42	6.	0. 30	0. 30	13. 5
G	53. 87	-3. 51	162.	0. 38	0. 86	22. 1
CTI	7. 52	-5. 69	165.	0. 69	0. 74	22. 8
CVA	41. 90	12. 44	87.	0. 30	0. 30	13. 3
DAH	9. 56	2. 25	179.	0. 32	0. 71	19. 3
NGR	16. 83	8. 25	46.	1. 02	1. 25	27. 0
IRL	53. 25	-8. 26	123.	0. 30	0. 39	16. 9
GHA	7. 94	-1. 28	171.	0. 50	0. 75	21. 6
POR	39. 60	-8. 01	6.	0. 30	0. 55	17. 8
AZR	36. 18	-23. 38	119.	0. 35	1. 26	22. 4
LIE	47. 10	9. 58	121.	0. 30	0. 30	14. 1
ALI	24. 52	2. 64	108.	1. 08	1. 99	29. 2
ALH	31. 98	0. 85	82.	0. 80	1. 92	27. 8
NIG	9. 46	7. 80	69.	0. 99	1. 06	26. 0
STP	0. 85	7. 01	25.	0. 30	0. 44	16. 2
E	39. 92	-3. 11	112.	0. 62	1. 06	24. 2
CNR	28. 45	-15. 72	84.	0. 30	0. 82	18. 9
IS1	64. 91	-19. 24	90.	0. 30	0. 57	19. 5
MTN	20. 23	-10. 67	118.	1. 19	1. 36	27. 8
TUO	23. 69	0. 85	89.	1. 86	3. 42	33. 9
MRC	29. 24	-9. 08	47.	0. 69	1. 36	25. 6
TUN	34. 01	9. 55	178.	0. 31	0. 66	19. 3
LBY	26. 76	16. 93	150.	0. 85	1. 79	28. 0
MTN	20. 23	-10. 67	118.	1. 19	1. 36	27. 8

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
GRC	38. 15	23. 95	121.	0. 42	0. 83	21. 9
F	45. 91	2. 78	120.	0. 51	1. 22	24. 2
HOL	52. 08	5. 40	115.	0. 30	0. 37	16. 2
CYP	35. 11	33. 43	78.	0. 30	0. 30	14. 6
I	41. 32	12. 37	155.	0. 56	1. 17	24. 4
BEL	50. 64	4. 72	117.	0. 30	0. 40	16. 5
DAS	49. 45	10. 54	130.	0. 50	0. 92	23. 2
D	50. 68	9. 79	148.	0. 35	0. 69	20. 5
GNE	1. 59	10. 39	79.	0. 30	0. 34	15. 2
AUT	47. 56	13. 59	87.	0. 30	0. 57	18. 1
SUI	46. 79	8. 05	87.	0. 30	0. 41	16. 4
LUX	49. 80	6. 08	146.	0. 30	0. 30	13. 7
GAB	-0. 68	11. 85	26.	0. 58	0. 70	21. 8
COG	-0. 76	14. 69	36.	0. 60	1. 03	23. 6
ZAI	-3. 34	22. 53	147.	1. 69	1. 94	31. 0
DDR	52. 13	12. 36	141.	0. 30	0. 48	17. 8
ROU	45. 74	24. 94	128.	0. 30	0. 63	19. 4
TCH	49. 27	17. 00	107.	0. 30	0. 78	19. 5
BUL	42. 65	24. 91	111.	0. 30	0. 52	17. 8
YUG	43. 75	18. 41	132.	0. 31	0. 86	20. 7
HNG	47. 16	19. 32	87.	0. 30	0. 50	17. 5
YUG	43. 75	18. 41	132.	0. 31	0. 86	20. 7
TCD	14. 95	18. 18	173.	0. 92	1. 69	27. 7
CME	6. 25	12. 79	7.	0. 86	1. 29	26. 2
CAF	6. 33	20. 35	79.	0. 89	1. 17	26. 0
SD1	7. 49	29. 30	118.	0. 55	1. 24	24. 3
SD2	12. 74	28. 99	99.	0. 94	1. 23	26. 6
SD3	19. 01	30. 51	92.	0. 78	1. 25	25. 8
NMB	-21. 61	17. 85	65.	1. 11	1. 46	27. 9
SMR	43. 75	12. 65	93.	0. 30	0. 30	13. 8
ZMB	-13. 12	27. 54	53.	0. 70	1. 20	25. 1
RHS	-18. 82	29. 62	35.	0. 63	0. 72	22. 5
ALB	41. 13	20. 01	172.	0. 30	0. 37	15. 8
EGY	26. 98	30. 21	147.	0. 67	1. 23	25. 2
MLT	35. 95	14. 37	113.	0. 30	0. 30	13. 3
POL	51. 99	19. 06	115.	0. 31	0. 75	20. 4
BOT	-22. 09	23. 70	35.	0. 71	1. 07	24. 7
AGL	-11. 66	17. 24	169.	1. 39	1. 59	29. 1
TUR	38. 96	34. 42	102.	0. 49	1. 28	24. 3
UNK	55. 92	11. 03	117.	0. 30	0. 59	18. 4

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
RRW	-2.00	29.87	40.	0.30	0.34	15.0
AFZ	-25.82	27.51	57.	0.51	1.01	23.0
FNL	63.64	24.31	124.	0.33	0.70	21.8
BDI	-3.19	29.90	9.	0.30	0.39	15.7
ISR	31.45	34.95	2.	0.30	0.46	16.6
AFX	-31.45	28.27	50.	0.30	0.68	18.5
AFY	-27.90	30.81	26.	0.30	0.93	19.6
S	61.07	16.23	166.	0.49	0.52	21.4
NOR	64.10	12.97	57.	0.45	0.88	23.8
NDC	61.11	15.93	75.	0.52	1.09	24.9
SWZ	-26.55	31.52	11.	0.30	0.30	14.7
MOZ	-17.40	34.91	19.	0.77	1.74	27.2
NDC	61.11	15.93	75.	0.52	1.09	24.9
IS2	64.27	-15.87	119.	0.30	0.80	21.1
AFS	-28.29	24.55	59.	0.80	1.68	27.2
KEN	0.71	37.85	172.	0.81	1.07	25.2
ETH	9.43	39.39	148.	1.04	1.67	28.3
UGA	1.29	32.36	33.	0.55	0.72	21.8
MWI	-13.04	34.16	166.	0.33	0.75	19.8
SOM	6.39	44.97	22.	0.65	1.57	26.1
F	45.90	2.92	123.	0.57	1.13	24.3
TGK	-6.25	34.64	146.	0.82	1.23	25.8
LSO	-29.70	28.18	49.	0.30	0.39	15.7

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0
	GUI I 1	IRL I 1	MTN I 1	I D 1	?	RHS I 1	DNK I 1	F D 1
1	-2.5	0.3	-4.6	-1.0	*****	5.9	1.6	-2.3
	?	GHA D 1	?	?	?	?	RRW D 1	?
1	*****	0.2	*****	*****	*****	*****	6.1	*****
	LBR D 1	POR D 1	NIG I 1	BEL I 1	DDR D 1	SD2 I 1	AFZ D 1	TGK I 1
2	-9.5	-11.5	-8.7	-1.7	-6.3	1.0	7.2	9.2
	ICV D 1	AZR I 1	TUO D 1	?	?	ALB D 1	?	?
2	-9.7	-4.0	-3.6	*****	*****	-6.2	*****	*****
	?	LIE D 1	?	?	?	?	?	?
2	*****	-9.9	*****	*****	*****	*****	*****	*****
	SEN I 1	DAH D 1	MRC I 1	GRC I 1	ROU D 1	NMB I 1	FNL I 1	LSO 1 1
3	5.7	4.5	3.2	-8.1	-9.7	4.0	4.7	0.4
	?	?	?	DAS D 1	CME I 1	EGY D 1	BDI D 1	?
3	*****	*****	*****	-8.7	3.4	-1.3	6.1	*****
	MW1 D 1	MLO I 1	IS1 I 1	F I 1	TCH I 1	SD3 I 1	ISR D 1	KEN D 1
4	4.5	-4.5	3.3	-9.8	-8.9	2.9	4.3	5.7
	?	?	TUN D 1	GNE I 1	CAF D 1	?	AFX I 1	?
4	*****	*****	1.1	-5.0	1.6	*****	3.3	*****
	GUI I 1	IRL I 1	MTN I 1	I D 1	?	RHS I 1	DNK I 1	?
5	-2.5	6.4	-4.6	2.6	*****	5.9	4.9	*****
	?	GHA D 1	?	?	?	?	RRW D 1	?
5	*****	0.2	*****	*****	*****	*****	6.1	*****

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0	
	LBR D 1	POR D 1	NIG I 1	BEL I 1	DDR D 1	SD2 I 1	AFZ D 1	TGK I 1	
6	-9.5	-11.5	-8.7	-1.7	-6.3	1.0	7.2	9.2	
	ICV D 1	AZR I 1	TUO D 1	?	?	ALB D 1	?	?	
6	-9.7	-4.0	-3.6	*****	*****	-6.2	******	******	
	?	LIE D 1	?	?	?	?	?	?	
6	*****	-9.9	*****	*****	*****	*****	******	******	
	SEN I 1	DAH D 1	MRC I 1	GRC I 1	ROU D 1	NMB I 1	FNL I 1	LSO I 1	
7	5.7	4.5	3.2	-8.1	-9.7	4.0	4.7	0.4	
	?	?	?	DAS D 1	CME I 1	EGY D 1	BDI D 1	?	
7	*****	*****	*****	-8.7	3.4	-1.3	6.1	******	
	MW1 D 1	MCO I 1	ISI I 1	F I 1	TCH I 1	SD3 I 1	ISR D 1	KEN D 1	
8	4.5	-4.5	3.3	-9.8	-8.9	2.9	4.3	5.7	
	?	?	TUN D 1	GNE I 1	CAF D 1	?	AFX I 1	?	
8	*****	*****	1.1	-5.0	1.6	*****	3.3	******	
	GUI I 1	IRL I 1	MTN I 1	I D 1	?	RHS I 1	DNK 1 1	?	
9	-2.5	6.4	-4.6	2.6	*****	5.9	4.9	******	
	?	GHA D 1	?	?	?	?	RRW D 1	?	
9	*****	0.2	*****	*****	*****	*****	6.1	******	
	LBR D 1	POR D 1	NIG I 1	BEL I 1	DDR D 1	SD2 I 1	AFZ D 1	TGK I 1	
10	-9.5	-11.5	-8.7	-1.7	-6.3	1.0	7.2	9.2	
	ICV D 1	AZR I 1	TUO D 1	?	?	ALB D 1	?	?	
10	-9.7	-4.0	-3.6	*****	*****	-6.2	******	******	
	?	LIE D 1	?	?	?	?	?	?	
10	*****	-9.9	*****	*****	*****	*****	******	******	

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0	
	SEN I 1	DAH D 1	MRC I 1	GRC I 1	ROU D 1	NMB I 1	FNL I 1	LSO I 1	
11	5.7	4.5	3.2	-8.1	-9.7	4.0	4.7	0.4	
	?	?	?	DAS D 1	CME I 1	EGY D 1	BDI D 1	?	
11	*****	*****	*****	-8.7	3.4	-1.3	6.1	*****	
	MW1 D 1	MCO I 1	IS1 I 1	F I 1	TCH I 1	SD3 I 1	ISR D 1	KEN D 1	
12	4.5	-4.5	3.3	-9.8	-8.9	2.8	4.1	5.7	
	?	?	TUN D 1	GNE I 1	CAF D 1	?	AFY I 1	?	
12	*****	*****	1.1	-5.0	1.6	*****	3.4	*****	
	GUI I 1	IRL I 1	MIN I 1	I D 1	?	RHS I 1	RRW D 1	?	
13	-2.5	6.4	-4.6	2.6	*****	5.5	6.1	*****	
	?	GHA D 1	?	?	?	?	S I 1	?	
13	*****	0.2	*****	*****	*****	*****	5.7	*****	
	LBR D 1	POR D 1	NIG I 1	BEL I 1	DDR D 1	SDZ I 1	AFZ D 1	TGK I 1	
14	-9.5	-11.5	-8.7	-1.7	-6.3	1.0	7.2	9.2	
	ICV D 1	AZR I 1	IUO D 1	?	?	ALB D 1	?	?	
14	-9.7	-4.0	-3.6	*****	*****	-6.2	*****	*****	
	?	LIE D 1	?	?	?	?	?	?	
14	*****	-9.9	*****	*****	*****	*****	*****	*****	
	SEN I 1	DAH D 1	MRC I 1	GRC I 1	ROU D 1	NMB I 1	BDI D 1	LSO I 1	
15	5.7	4.5	3.2	-8.1	-6.1	4.0	4.8	0.4	
	?	?	?	D D 1	CME I 1	EGY D 1	NOR I 1	?	
15	*****	*****	*****	-5.5	3.4	-1.3	4.1	*****	

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0
	MW1 D 1	MCQ D 1	IS1 I 1	F I 1	TCH I 1	SD3 I 1	ISR D 1	KEN D 1
16	4.5	-8.3	2.8	-10.1	-9.1	2.8	4.1	5.7
	?	?	TUN D 1	GNE I 1	CAF D 1	?	AFY I 1	?
16	*****	*****	-8.2	-5.0	1.6	*****	3.4	******
	GUI I 1	IRL I 1	MIN I 1	I D 1	?	RHS I 1	RRW D 1	?
17	-2.5	6.4	-4.6	2.3	*****	5.5	7.6	******
	?	GHA D 1	?	?	?	?	S I 1	?
17	*****	0.2	*****	*****	*****	*****	5.7	******
	LBR D 1	PUR D 1	NIG I 1	BEL I 1	DDR D 1	SD2 I 1	?	TGK I 1
18	-9.5	-11.5	-8.7	-1.7	-6.3	1.0	*****	9.2
	ICV D 1	AZR I 1	TUO D 1	?	?	ALB D 1	?	?
18	-9.7	-4.0	-3.6	*****	*****	-6.2	******	******
	?	LIE D 1	?	?	?	?	?	?
18	*****	-9.9	*****	*****	*****	*****	******	******
	SEN I 1	DAH D 1	MRC I 1	GRC I 1	ROU D 1	NMB I 1	BDI D 1	LSO I 1
19	5.7	4.5	3.2	-8.1	-6.1	4.0	4.8	0.4
	?	?	?	D D 1	CME I 1	EGY D 1	NOR 1 1	?
19	*****	*****	*****	-5.5	3.4	-1.3	4.1	******
	MW1 D 1	MCQ D 1	IS1 I 1	F I 1	TCH I 1	SD3 I 1	?	KEN D 1
20	4.0	-8.3	2.8	-10.1	-9.1	3.1	******	6.0
	?	?	TUN D 1	GNE I 1	CAF D 1	?	?	?
20	*****	*****	-15.8	-5.0	1.6	*****	******	******

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0
	GMB I 1	G I 1	ALI D 1	AUT D 1	ZAI I 1	MLT D 1	NDC I 1	ETH I 1
21	7.4	-0.8	-16.2	-2.1	1.9	-0.7	1.5	1.9
	?	CTI D 1	LBY I 1	?	BUL D 1	?	SWZ I 1	?
21	*****	0.6	-9.1	*****	-4.2	*****	-8.0	*****
	SRL D 1	TGO I 1	STP D 1	HOL I 1	COG D 1	SD1 I 1	AGL I 1	UGA D 1
22	1.0	-3.6	-1.7	-2.3	-2.8	-3.6	-6.2	-5.1
	?	CVA D 1	MIN I 1	?	YUG I 1	POL D 1	MOZ D 1	?
22	*****	1.8	0.5	*****	-2.1	-1.8	-5.3	*****
	GNB I 1	HVO D 1	ALH D 1	CYP I 1	GAB I 1	SMR I 1	TUR D 1	NWI I 1
23	9.7	1.5	1.7	-2.0	5.4	-3.7	-0.7	5.0
	?	AND I 1	?	D D 1	HNG D 1	BOT D 1	NOR I 1	?
23	*****	1.2	*****	-10.0	-9.3	2.9	1.0	*****
	MWZ D 1	I D 1	E I 1	LUX I 1	YUG I 1	ZMB I 1	IS2 D 1	SOM D 1
24	-2.1	-5.5	-10.4	-7.5	-4.1	1.9	3.3	6.9
	?	NGR I 1	CNR I 1	?	TCD D 1	?	AFS D 1	?
24	*****	-6.3	-15.7	*****	-0.1	*****	2.3	*****
	GMB I 1	G I 1	ALI D 1	AUT D 1	ZAI I 1	MLT D 1	NDC I 1	ETH I 1
25	7.4	-0.8	-8.9	-2.1	1.9	-0.7	1.5	1.9
	?	CTI D 1	LBY I 1	?	BUL D 1	?	SWZ I 1	?
25	*****	0.6	-9.1	*****	-4.2	*****	-8.0	*****
	SRL D 1	TGO I 1	STP D 1	HOL I 1	COG D 1	SD1 I 1	AGL I 1	UGA D 1
26	1.0	-3.6	-1.7	-2.3	-2.8	-3.6	-6.2	-5.1
	?	CVA D 1	MIN I 1	?	YUG I 1	POL D 1	MOZ D 1	?
26	*****	1.8	0.5	*****	-2.1	-1.8	-5.3	*****

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0

	GNP I 1	HVO D 1	ALH D 1	CYP I 1	GAB I 1	SMR I 1	TUR D 1	MWI I 1
27	9.7	1.5	1.7	-1.8	5.4	-3.4	-1.7	5.0
	?	AND I 1	?	SUI D 1	HNG D 1	BOT D 1	NDC I 1	?
27	*****	-0.3	*****	-7.4	-6.1	2.9	-0.4	*****

	MW2 D 1	I D 1	E I 1	LUX I 1	YUG I 1	ZMB I 1	IS2 D 1	SOM D 1
28	-2.1	-5.5	-10.4	-7.5	-4.1	1.9	3.3	6.9
	?	NGR I 1	CNK I 1	?	TCD D 1	?	AFS D 1	?
28	*****	-6.3	-15.7	*****	-0.1	*****	2.3	*****

	GMB I 1	G I 1	ALI D 1	D D 1	ZAI I 1	MLT D 1	S I 1	ETH I 1
29	7.4	-1.3	-8.9	-3.6	1.9	-0.7	-0.2	1.9
	?	CTI D 1	LBY I 1	?	BUL D 1	?	SWZ I 1	?
29	*****	0.6	-9.1	*****	-3.3	*****	-8.0	*****

	SKL D 1	TGO I 1	STP D 1	HUL I 1	COG D 1	SD1 I 1	AGL I 1	UGA D 1
30	1.0	-3.6	-1.7	-2.3	-2.8	-3.6	-6.2	-5.1
	?	CVA D 1	MTN I 1	?	YUG I 1	POL D 1	MOZ D 1	?
30	*****	1.8	0.5	*****	-2.1	-1.8	-5.3	*****

	GNP I 1	HVO D 1	ALH D 1	CYP I 1	GAB I 1	SMR I 1	TUR D 1	MWI I 1
31	9.7	1.5	1.9	-1.8	5.4	-3.4	-1.7	5.0
	?	ANU I 1	?	SUI D 1	HNG D 1	BOT D 1	NDC I 1	?
31	*****	-0.3	*****	-7.4	-6.1	2.9	-0.4	*****

	MW2 D 1	CVE D 1	E I 1	LUX I 1	YUG I 1	ZMB I 1	IS2 D 1	SOM D 1
32	-2.1	-7.1	-10.4	-8.2	-4.0	1.9	1.9	6.9
	?	NGR I 1	CNK I 1	?	TCD D 1	?	AFS U 1	?
32	*****	-6.4	-15.7	*****	-0.2	*****	2.3	*****

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0
	GMB I 1	G I 1	ALI D 1	AUT D 1	ZAI I 1	MLT D 1	NDC I 1	ETH I 1
33	7.4	-0.8	-8.9	-2.1	1.9	-0.7	1.5	1.9
	?	CTI D 1	LBY I 1	?	BUL D 1	?	SWZ I 1	?
33	*****	0.6	-9.1	*****	-4.2	*****	-8.0	******
	SRL D 1	CVI D 1	STP D 1	HOL I 1	COG D 1	SD1 I 1	AGL I 1	UGA D 1
34	0.9	-1.7	-1.7	-3.7	-2.8	-3.6	-6.2	-5.1
	?	TGO I 1	MTN I 1	?	YUG I 1	POL D 1	MOZ D 1	?
34	*****	-4.0	0.5	*****	-3.3	-2.7	-5.3	******
	GNB I 1	HVO D 1	ALH D 1	CYP I 1	GAB I 1	SMR I 1	TUR D 1	MWI I 1
35	9.7	3.1	2.3	-1.8	5.4	-3.4	-1.7	5.0
	?	AND I 1	?	SUI D 1	HNG D 1	BOT D 1	NDC I 1	?
35	*****	-0.3	*****	-7.4	-6.1	2.9	-0.4	******
	MWZ D 1	NGR I 1	E I 1	LUX I 1	YUG I 1	ZMB I 1	ISZ D 1	SOM D 1
36	-2.0	-4.6	-10.4	-6.8	-2.2	1.9	3.4	6.9
	?	?	CNR I 1	?	TCD D 1	?	AFS D 1	?
36	*****	*****	-15.7	*****	-0.1	*****	2.3	******
	GMB I 1	G I 1	ALI D 1	AUT D 1	ZAI I 1	MLT D 1	NDC I 1	ETH I 1
37	7.4	-0.8	-8.9	-2.1	1.9	-0.7	1.5	1.9
	?	CTI D 1	LBY I 1	?	BUL D 1	?	SWZ I 1	?
37	*****	0.6	-9.1	*****	-4.2	*****	-8.0	******
	SRL D 1	TGO I 1	STP D 1	HOL I 1	COG D 1	SD1 I 1	AGL I 1	UGA D 1
38	1.0	-3.6	-1.7	-2.3	-2.8	-3.6	-6.2	-5.1
	?	?	MTN I 1	?	YUG I 1	POL D 1	MOZ D 1	?
38	*****	*****	0.5	*****	-0.9	-1.6	-5.3	******

	-34.0	-28.0	-22.0	-16.0	-10.0	-4.0	2.0	8.0	
	GNP I 1	HVO D 1	ALH D 1	CYP I 1	ZAI I 1	SMR I 1	TUR D 1	MWI I 1	
39	9.7	3.1	5.5	-1.9	0.6	-3.4	-1.8	-0.3	
	?	ANU I 1	?	SUI D 1	HNG D 1	BOT D 1	NDC I 1	?	
39	*****	-0.3	*****	-7.4	-7.0	1.1	-0.5	*****	
	MW2 D 1	NGR I 1	E I 1	LUX I 1	YUG I 1	ZMB I 1	IS2 D 1	SOM D 1	
40	-2.0	-4.6	-8.2	-6.8	-2.2	1.9	3.4	8.2	
	?	?	CNK I 1	?	TCD D 1	?	AFS D 1	?	
40	*****	*****	-15.7	*****	-0.1	*****	2.3	*****	

ANALYSE DES BROUILLAGES DES PAYS A MARGE NEGATIVE

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)							
GUI	1	-2.5	GHA	36.2	MTN	29.4				
GUI	5	-2.5	GHA	36.2	MTN	29.4				
GUI	9	-2.5	GHA	36.2	MTN	29.4				
GUI	13	-2.5	GHA	36.2	MTN	29.4				
GUI	17	-2.5	GHA	36.2	MTN	29.4				
LBR	2	-9.5	ICV	22.0						
LBR	6	-9.5	ICV	22.0						
LBR	10	-9.5	ICV	22.0						
LBR	14									
LBR	18	-9.5	ICV	22.0						
MW2	24	-2.1	NGR	29.2						
MW2	28	-2.1	NGR	29.2						
MW2	32	-2.1	NGR	29.2						
MW2	36	-2.0	NGR	29.2						
MW2	40	-2.0	NGR	29.2						
ICV	2	-9.7	LBR	21.9	TUO	30.6				
ICV	6	-9.7	LBR	21.9	TUO	30.6				
ICV	10	-9.7	LBR	21.9	TUO	30.6				
ICV	14	-9.7	LBR	21.9	TUO	30.6				
ICV	18	-9.7	LBR	21.9	TUO	30.6				
CVE	32	-7.1	NGR	30.4	E	28.1	LUX	31.7	YUG	31.2
CVI	34	-1.7	HUL	38.5	YUG	31.6	POL	36.1		
MCQ	16	-8.3	TUN	24.6	F	28.2				
MCQ	20	-8.3	TUN	24.6	F	28.2				
I	24	-5.5	NGR	30.3	E	31.6	LUX	33.7	YUG	31.8
I	28	-5.5	NGR	30.3	E	31.6	LUX	33.7	YUG	31.8
TGO	22	-3.6	MTN	27.5						
TGO	26	-3.6	MTN	27.5						
TGO	30	-3.6	MTN	27.5						
TGO	34	-4.0	MTN	27.5						
TGO	38	-3.6	MTN	27.5						
AND	27	-0.3	HVO	39.0	ALH	34.2	SUI	34.8		
AND	31	-0.3	HVO	39.0	ALH	34.2	SUI	34.8		
AND	35	-0.3	HVO	39.0	ALH	34.2	SUI	34.8		
AND	39	-0.3	HVO	39.0	ALH	34.2	SUI	34.8		
MCO	4	-4.5	F	26.9						
MCO	8	-4.5	F	26.9						
MCO	12	-4.5	F	26.9						
G	21	-0.8	CTI	39.3	LBY	35.9	NDC	32.9		
G	25	-0.8	CTI	39.3	LBY	35.9	NDC	32.9		
G	29	-1.3	CTI	39.3	LBY	35.9	D	31.9		
G	33	-0.8	CTI	39.3	LBY	35.9	NDC	32.9		
G	37	-0.8	CTI	39.3	LBY	35.9	NDC	32.9		
NGR	24	-6.3	MW2	28.6	I	29.6	TCD	30.8		
NGR	28	-6.3	MW2	28.6	I	29.6	TCD	30.8		
NGR	32	-6.4	MW2	28.6	CVE	29.3	TCD	30.8		
NGR	36	-4.6	MW2	28.6	TCD	30.8				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS	(BROUILLAGE EN DB.)		
NGR	10	-4.6	MWZ	28.6	TCD	30.8
POR	2	-11.5	LIE	23.5	TUO	22.5
POR	6	-11.5	LIE	23.5	TUO	22.5
POR	10	-11.5	LIE	23.5	TUO	22.5
POR	14	-11.5	LIE	23.5	TUO	22.5
POR	18	-11.5	LIE	23.5	TUO	22.5
AZR	2	-4.0	POR	30.5	TUO	30.0
AZR	6	-4.0	POR	30.5	TUO	30.0
AZR	10	-4.0	POR	30.5	TUO	30.0
AZR	14	-4.0	POR	30.5	TUO	30.0
AZR	18	-4.0	POR	30.5	TUO	30.0
LIE	2	-9.9	POR	23.5	TUO	26.2
LIE	6	-9.9	POR	23.5	TUO	26.2
LIE	10	-9.9	POR	23.5	TUO	26.2
LIE	14	-9.9	POR	23.5	TUO	26.2
LIE	18	-9.9	POR	23.5	TUO	26.2
ALI	20	-16.2	TUN	-1.2		
ALI	21	-8.9	LBY	22.2		
ALI	25	-8.9	LBY	22.2		
ALI	29	-8.9	LBY	22.2		
ALI	33	-8.9	LBY	22.2		
ALI	37	-8.9	LBY	22.2		
NIG	1	-7.2	MTN	7.8		
NIG	2	-8.7	TUO	22.5		
NIG	5	-7.2	MTN	7.8		
NIG	6	-8.7	TUO	22.5		
NIG	9	-7.2	MTN	7.8		
NIG	10	-8.7	TUO	22.5		
NIG	13	-7.2	MTN	7.8		
NIG	14	-8.7	TUO	22.5		
NIG	17	-7.2	MTN	7.8		
NIG	18	-8.7	TUO	22.5		
STP	22	-1.7	MTN	30.8	COG	37.0
STP	26	-1.7	MTN	30.8	COG	37.0
STP	30	-1.7	MTN	30.8	COG	37.0
STP	34	-1.7	MTN	30.8	COG	37.0
STP	38	-1.7	MTN	30.8	COG	37.0
E	24	-9.0	I	29.7	CNR	23.1
E	25	-10.4	LBY	4.6		
E	28	-9.0	I	29.7	CNR	23.1
E	29	-10.4	LBY	4.6		
E	32	-9.6	CVE	27.1	CNR	23.1
E	33	-10.4	LBY	4.6		
E	36	-8.2	CNR	23.1		
E	37	-10.4	LBY	4.6		
E	40	-8.2	CNR	23.1		
CNR	24	-15.7	E	15.3		
CNR	28	-15.7	E	15.3		
CNR	32	-15.7	E	15.3		
CNR	36	-15.7	E	15.3		
CNR	40	-15.7	E	15.3		

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
MIN	1	-1.7	GUI	30.2	GHA	37.4		
MTN	2	-4.6	NIG	10.9				
MIN	5	-1.7	GUI	30.2	GHA	37.4		
MTN	6	-4.6	NIG	10.9				
MIN	9	-1.7	GUI	30.2	GHA	37.4		
MTN	10	-4.6	NIG	10.9				
MIN	13	-1.7	GUI	30.2	GHA	37.4		
MTN	14	-4.6	NIG	10.9				
MIN	17	-1.7	GUI	30.2	GHA	37.4		
MTN	18	-4.6	NIG	10.9				
TUO	2	-3.6	NIG	29.1	SD2	34.2		
TUO	6	-3.6	NIG	29.1	SD2	34.2		
TUO	10	-3.6	NIG	29.1	SD2	34.2		
TUO	14	-3.6	NIG	29.1	SD2	34.2		
TUO	18	-3.6	NIG	29.1	SD2	34.2		
TUN	16	-8.2	MCQ	23.3				
TUN	20	-8.2	MCQ	23.3				
TUN	21	-15.8	ALI	-0.8				
LBY	21	-9.1	ALI	22.3				
LBY	22	-4.3	MTN	10.7				
LBY	24	-6.0	E	9.5				
LBY	25	-9.1	ALI	22.3				
LBY	28	-6.0	MIN	10.7				
LBY	29	-9.1	ALI	22.3				
LBY	30	-4.3	MIN	10.7				
LBY	32	-6.0	E	9.5				
LBY	33	-9.1	ALI	22.3				
LBY	34	-4.4	MIN	10.7				
LBY	36	-5.9	E	9.5				
LBY	37	-9.1	ALI	22.3				
LBY	38	-4.3	MIN	10.7				
GRC	3	-6.4	DAS	29.1	ROU	29.3	EGY	30.8
GRC	4	-8.1	F	7.0				
GRC	7	-6.4	DAS	29.1	ROU	29.3	EGY	30.8
GRC	8	-8.1	F	7.0				
GRC	11	-6.4	DAS	29.1	ROU	29.3	EGY	30.8
GRC	12	-8.1	F	7.0				
GRC	15	-6.1	D	29.7	ROU	29.3	EGY	30.8
GRC	16	-8.1	F	7.0				
GRC	19	-6.1	D	29.7	ROU	29.3	EGY	30.8
GRC	20	-8.1	F	7.0				
F	3	-5.0	GRC	10.4				
F	4	-9.8	MCO	30.3	TCH	22.4		
F	7	-5.0	GRC	10.4				
F	8	-9.8	MCO	30.3	TCH	22.4		
F	11	-5.0	GRC	10.4				
F	12	-9.8	MCO	30.3	TCH	22.4		
F	15	-5.0	GRC	10.4				
F	16	-10.1	MCQ	28.0	TCH	22.4		
F	19	-5.0	GRC	10.4				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)							
F	20	-10.1	MCQ	28.0	TCH	22.4				
HOL	22	-2.3	YUG	30.5	POL	34.1				
HOL	26	-2.3	YUG	30.5	POL	34.1				
HOL	30	-2.3	YUG	30.5	POL	34.1				
HOL	34	-3.7	CVI	32.8	YUG	30.5	POL	34.1		
HOL	38	-2.3	YUG	30.5	POL	34.1				
CYP	23	-2.0	ALH	34.9	TUR	30.9				
CYP	27	-1.8	ALH	34.9	TUR	30.9				
CYP	31	-1.8	ALH	34.9	TUR	30.9				
CYP	35	-1.8	ALH	34.9	TUR	30.9				
CYP	39	-1.9	ALH	34.9	TUR	30.9				
I	1	-1.0	F	30.3						
BEL	2	-1.7	LIE	37.4	TUO	36.5	DDR	31.6		
BEL	6	-1.7	LIE	37.4	TUO	36.5	DDR	31.6		
BEL	10	-1.7	LIE	37.4	TUO	36.5	DDR	31.6		
BEL	14	-1.7	LIE	37.4	TUO	36.5	DDR	31.6		
BEL	18	-1.7	LIE	37.4	TUO	36.5	DDR	31.6		
DAS	3	-8.7	GRC	28.9	ROU	23.7				
DAS	7	-8.7	GRC	28.9	ROU	23.7				
DAS	11	-8.7	GRC	28.9	ROU	23.7				
D	15	-5.5	GRC	29.6	ROU	30.5	NOR	31.6		
D	19	-5.5	GRC	29.6	ROU	30.5	NOR	31.6		
D	23	-10.0	HNG	22.6						
D	29	-3.6	G	32.7	ALI	36.2	LBY	36.2	S	31.4
GNE	4	-5.0	F	27.4	CAF	31.8				
GNE	8	-5.0	F	27.4	CAF	31.8				
GNE	12	-5.0	F	27.4	CAF	31.8				
GNE	16	-5.0	F	27.4	CAF	31.8				
GNE	20	-5.0	F	27.4	CAF	31.8				
AUT	21	-2.1	ALI	35.7	LBY	35.6	BUL	33.7	NDC	37.0
AUT	25	-2.1	ALI	35.7	LBY	35.6	BUL	33.7	NDC	37.0
AUT	33	-2.1	ALI	35.7	LBY	35.6	BUL	33.7	NDC	37.0
AUT	37	-2.1	ALI	35.7	LBY	35.6	BUL	33.7	NDC	37.0
SUI	27	-7.4	AND	33.2	ALH	30.5	HNG	26.2		
SUI	31	-7.4	AND	33.2	ALH	30.5	HNG	26.2		
SUI	35	-7.4	AND	33.2	ALH	30.5	HNG	26.2		
SUI	39	-7.4	AND	33.2	ALH	30.5	HNG	26.2		
LUX	24	-7.5	I	31.6	E	26.2	YUG	28.8		
LUX	28	-7.5	I	31.6	E	26.2	YUG	28.8		
LUX	32	-8.2	CVE	28.4	E	26.2	YUG	28.8		
LUX	36	-6.8	E	26.2	YUG	28.8				
LUX	40	-6.8	E	26.2	YUG	28.8				
COG	22	-2.8	AGL	28.8						
COG	26	-2.8	AGL	28.8						
COG	30	-2.8	AGL	28.8						
COG	34	-2.8	AGL	28.8						
COG	38	-2.8	AGL	28.8						
DDR	2	-2.7	LIE	34.5	TUO	35.4	BEL	31.0		
DDR	3	-6.3	DAS	18.6	ROU	9.3				
DDR	6	-2.7	LIE	34.5	TUO	35.4	BEL	31.0		
DDR	7	-6.3	DAS	18.6	ROU	9.3				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
DDR	10	-2.7	LIE	34.5	TUO	35.4	BEL	31.0
DDR	11	-6.3	DAS	18.6	ROU	9.3		
DDR	14	-2.7	LIE	34.5	TUO	35.4	BEL	31.0
DDR	15	-6.3	D	18.5	ROU	9.3		
DDR	18	-2.7	LIE	34.5	TUO	35.4	BEL	31.0
DDR	19	-6.3	D	18.5	ROU	9.3		
ROU	2	-1.3	DDR	14.6	ALB	21.3		
ROU	3	-9.7	GRC	30.8	DAS	22.7	EGY	30.9
ROU	6	-1.3	DDR	14.6	ALB	21.3		
ROU	7	-9.7	GRC	30.8	DAS	22.7	EGY	30.9
ROU	10	-1.3	DDR	14.6	ALB	21.3		
ROU	11	-9.7	GRC	30.8	DAS	22.7	EGY	30.9
ROU	14	-1.3	DDR	14.6	ALB	21.3		
ROU	15	-6.1	GRC	30.8	D	29.0	EGY	30.9
ROU	18	-1.3	DDR	14.6	ALB	21.3		
ROU	19	-6.1	GRC	30.8	D	29.0	EGY	30.9
TCH	4	-8.9	F	22.4				
TCH	8	-8.9	F	22.4				
TCH	12	-8.9	F	22.4				
TCH	16	-9.1	F	22.4				
TCH	20	-9.1	F	22.4				
BUL	21	-4.2	LBY	32.8	AUT	32.3	ZAI	30.8
BUL	24	-3.3	TCD	12.1				
BUL	25	-4.2	LBY	32.8	AUT	32.3	ZAI	30.8
BUL	28	-3.3	TCD	12.1				
BUL	29	-3.3	LBY	32.8	D	36.7	ZAI	30.8
BUL	32	-3.3	TCD	12.1				
BUL	33	-4.2	LBY	32.8	AUT	32.3	ZAI	30.8
BUL	36	-3.3	TCD	12.1				
BUL	37	-4.2	LBY	32.8	AUT	32.3	ZAI	30.8
YUG	22	-2.1	CVA	35.2	COG	37.8	POL	31.4
YUG	26	-2.1	CVA	35.2	COG	37.8	POL	31.4
YUG	30	-2.1	CVA	35.2	COG	37.8	POL	31.4
YUG	34	-3.3	CVI	31.5	POL	31.4		
YUG	38	-0.9	COG	37.8	POL	31.4		
HNG	23	-9.3	D	22.6				
HNG	27	-6.1	SUI	27.5	SMR	32.2		
HNG	31	-6.1	SUI	27.5	SMR	32.2		
HNG	35	-6.1	SUI	27.5	SMR	32.2		
HNG	39	-7.0	SUI	27.5	ZAI	30.8	SMR	32.2
YUG	24	-4.1	I	31.5	E	35.9	TCD	30.0
YUG	28	-4.1	I	31.5	E	35.9	TCD	30.0
YUG	32	-4.0	CVE	31.7	E	35.9	TCD	30.0
YUG	36	-2.2	E	35.9	TCD	30.0		
YUG	40	-2.2	E	35.9	TCD	30.0		
TCD	24	-0.1	NGR	32.0	YUG	39.8		
TCD	28	-0.1	NGR	32.0	YUG	39.8		
TCD	32	-0.2	NGR	32.0	YUG	39.8		
TCD	36	-0.1	NGR	32.0	YUG	39.8		
TCD	40	-0.1	NGR	32.0	YUG	39.8		
SD1	22	-3.6	AGL	34.1	UGA	29.4		

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)							
SD1	26	-3.6	AGL	34.1	UGA	29.4				
SD1	30	-3.6	AGL	34.1	UGA	29.4				
SD1	34	-3.6	AGL	34.1	UGA	29.4				
SD1	38	-3.6	AGL	34.1	UGA	29.4				
SMR	23	-3.7	D	32.0	HNG	31.6	BOT	37.1		
SMR	27	-3.4	SUI	34.9	HNG	31.6	BOT	37.1	NDC	36.6
SMR	31	-3.4	SUI	34.9	HNG	31.6	BOT	37.1	NDC	36.6
SMR	35	-3.4	SUI	34.9	HNG	31.6	BOT	37.1	NDC	36.6
SMR	39	-3.4	SUI	34.9	HNG	31.6	BOT	37.1	NDC	36.6
ALB	3	-6.2	EGY	9.1						
ALB	7	-6.2	EGY	9.1						
ALB	11	-6.2	EGY	9.1						
ALB	15	-6.2	EGY	9.1						
ALB	19	-6.2	EGY	9.1						
EGY	3	-1.3	GRC	33.0	NMB	33.4				
EGY	7	-1.3	GRC	33.0	NMB	33.4				
EGY	11	-1.3	GRC	33.0	NMB	33.4				
EGY	15	-1.3	GRC	33.0	NMB	33.4				
EGY	19	-1.3	GRC	33.0	NMB	33.4				
MLT	21	-0.7	ALI	37.0	LBY	32.0				
MLT	25	-0.7	ALI	37.0	LBY	32.0				
MLT	29	-0.7	ALI	37.0	LBY	32.0				
MLT	33	-0.7	ALI	37.0	LBY	32.0				
MLT	37	-0.7	ALI	37.0	LBY	32.0				
POL	22	-1.8	HOL	36.2	YUG	31.6	SD1	37.5		
POL	26	-1.8	HOL	36.2	YUG	31.6	SD1	37.5		
POL	30	-1.8	HOL	36.2	YUG	31.6	SD1	37.5		
POL	34	-2.7	CVI	34.8	HOL	36.2	YUG	31.6	SD1	37.5
POL	38	-1.6	HOL	36.2	YUG	31.6	SD1	37.5		
AGL	22	-6.2	COG	28.1	MOZ	27.8				
AGL	26	-6.2	COG	28.1	MOZ	27.8				
AGL	30	-6.2	COG	28.1	MOZ	27.8				
AGL	34	-6.2	COG	28.1	MOZ	27.8				
AGL	38	-6.2	COG	28.1	MOZ	27.8				
TUR	23	-0.7	ALH	36.4	CYP	33.3	NOR	37.4		
TUR	27	-1.7	ALH	36.4	CYP	33.3	NDC	33.5		
TUR	31	-1.7	ALH	36.4	CYP	33.3	NDC	33.5		
TUR	35	-1.7	ALH	36.4	CYP	33.3	NDC	33.5		
TUR	39	-1.8	ALH	36.4	CYP	33.3	NDC	33.5		
S	29	-0.2	G	37.9	D	32.5				
SWZ	22	-8.0	AGL	7.1						
SWZ	26	-8.0	AGL	7.1						
SWZ	30	-8.0	AGL	7.1						
SWZ	34	-8.0	AGL	7.1						
SWZ	38	-8.0	AGL	7.1						
MOZ	22	-5.3	AGL	25.8						
MOZ	26	-5.3	AGL	25.8						
MOZ	30	-5.3	AGL	25.8						
MOZ	34	-5.3	AGL	25.8						
MOZ	38	-5.3	AGL	25.8						
NDC	27	-0.4	TUR	31.1						

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
NDC	31	-0.4	TUR	31.1				
NDC	35	-0.4	TUR	31.1				
NDC	39	-0.5	TUR	31.1				
UGA	22	-5.1	SD1	28.6	MOZ	30.1		
UGA	26	-5.1	SD1	28.6	MOZ	30.1		
UGA	30	-5.1	SD1	28.6	MOZ	30.1		
UGA	34	-5.1	SD1	28.6	MOZ	30.1		
UGA	38	-5.1	SD1	28.6	MOZ	30.1		
MWI	39	-0.3	ZAI	32.2	BOT	36.2		
F	1	-2.3	IRL	37.8	I	30.9	DNK	34.4

5A2

APPENDICE 2 - Annexe 1

(Partie Centrale)

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
SD1	7. 49	29. 30	118.	0. 55	1. 24	24. 3
SD2	12. 74	28. 99	99.	0. 94	1. 23	26. 6
SD3	19. 01	30. 51	92.	0. 78	1. 25	25. 8
NMB	-21. 61	17. 85	65.	1. 11	1. 46	27. 9
SMR	43. 75	12. 65	93.	0. 30	0. 30	13. 8
ZMB	-13. 12	27. 54	53.	0. 70	1. 20	25. 1
RHS	-18. 82	29. 62	35.	0. 63	0. 72	22. 5
ALB	41. 13	20. 01	172.	0. 30	0. 37	15. 8
EGY	26. 98	30. 21	147.	0. 67	1. 23	25. 2
MLT	35. 95	14. 37	113.	0. 30	0. 30	13. 3
POL	51. 99	19. 06	115.	0. 31	0. 75	20. 4
BOT	-22. 09	23. 70	35.	0. 71	1. 07	24. 7
AGL	-11. 66	17. 24	169.	1. 39	1. 59	29. 1
TUR	38. 96	34. 42	102.	0. 49	1. 28	24. 3
DNK	55. 92	11. 03	117.	0. 30	0. 59	18. 4
RKW	-2. 00	29. 87	40.	0. 30	0. 34	15. 0
AFZ	-25. 82	27. 51	57.	0. 51	1. 01	23. 0
FNL	63. 64	24. 31	124.	0. 33	0. 70	21. 8
BDI	-3. 19	29. 90	9.	0. 30	0. 39	15. 7
ISR	31. 45	34. 95	2.	0. 30	0. 46	16. 6
AFX	-31. 45	28. 27	50.	0. 30	0. 68	18. 5
AFY	-27. 90	30. 81	26.	0. 30	0. 93	19. 6
S	61. 07	16. 23	166.	0. 49	0. 52	21. 4
NOR	64. 10	12. 97	57.	0. 45	0. 88	23. 8
NOC	61. 11	15. 93	75.	0. 52	1. 09	24. 9
SWZ	-26. 55	31. 52	11.	0. 30	0. 30	14. 7
MOZ	-17. 40	34. 91	19.	0. 77	1. 74	27. 2
NOC	61. 11	15. 93	75.	0. 52	1. 09	24. 9
ISZ	64. 27	-15. 87	119.	0. 30	0. 80	21. 1
AFS	-28. 29	24. 55	59.	0. 80	1. 68	27. 2
KEN	0. 71	37. 85	172.	0. 81	1. 07	25. 2
ETH	9. 43	39. 39	148.	1. 04	1. 67	28. 3
UGA	1. 29	32. 36	33.	0. 55	0. 72	21. 8
MWI	-13. 04	34. 16	166.	0. 33	0. 75	19. 8
SOM	6. 39	44. 97	22.	0. 65	1. 57	26. 1
F	45. 90	2. 92	123.	0. 57	1. 13	24. 3
TGK	-6. 25	34. 64	146.	0. 82	1. 23	25. 8
LSO	-29. 70	28. 18	49.	0. 30	0. 39	15. 7
YEM	15. 16	44. 31	168.	0. 38	0. 57	19. 2
SYR	34. 96	38. 33	77.	0. 46	0. 56	20. 1

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
AFI	11.66	42.57	22.	0.30	0.34	15.0
YMS	15.82	48.69	56.	0.46	0.90	22.1
ARU	23.10	42.37	148.	0.66	1.81	26.6
LBN	33.94	35.88	31.	0.30	0.30	14.4
ART	25.65	46.71	157.	0.57	2.08	26.7
JOR	31.43	36.87	68.	0.40	0.43	18.3
IRQ	32.88	43.74	131.	0.52	0.95	22.9
U09	56.70	24.74	63.	0.32	0.44	18.3
REU	-19.26	55.69	163.	0.39	0.78	20.7
MDG	-18.81	46.55	20.	0.49	1.36	24.1
U01	47.60	35.75	132.	0.84	2.31	29.2
U10	40.88	45.68	110.	0.30	1.08	20.6
COM	-12.20	44.11	121.	0.30	0.36	15.2
BLR	52.91	27.73	73.	0.36	0.58	19.7
UKR	48.46	31.23	96.	0.50	1.12	23.7
MYT	-12.78	45.11	106.	0.30	0.30	13.0
U02	57.40	41.30	145.	0.75	1.59	27.9
U11	63.15	32.46	100.	0.30	0.63	19.9
OMA	21.05	55.69	11.	0.57	0.92	23.1
BHR	26.13	50.50	175.	0.30	0.30	13.1
OMB	22.35	54.82	149.	0.90	1.18	26.1
QAT	25.33	51.19	1.	0.30	0.30	14.5
OMC	19.29	50.03	56.	0.89	1.53	27.2
KWT	29.29	47.57	119.	0.30	0.32	14.8
OMD	24.40	45.30	136.	1.62	2.78	32.4
UAE	24.26	53.66	84.	0.41	0.53	19.3
MR1	-17.93	59.88	34.	0.65	0.80	23.0
MR2	-13.94	56.89	36.	0.71	0.81	23.3
PA5	34.42	72.39	106.	0.51	0.93	23.0
PA1	28.97	68.75	36.	0.91	1.04	25.8
PA2	30.90	72.19	23.	0.36	0.58	19.3
PA3	27.96	65.25	63.	0.71	0.76	23.3
PA4	25.84	68.55	144.	0.31	0,66	19.2
IRN	32.44	54.26	127.	0.93	1.96	28.5
CLN	9.00	79.49	178.	0.30	0.32	14.9
MLD	6.00	73.11	3.	0.30	0.48	16.7
U14	42.03	63.17	101.	0.42	1.32	23.5
U17	41.03	73.93	79.	0.42	0.67	20.8
U03	44.65	64.31	109.	1.24	2.28	30.7
U04	58.55	61.77	116.	0.74	1.78	28.3

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
U12	63. 56	54. 35	75.	0. 33	0. 79	21. 8
U16	38. 58	70. 86	111.	0. 37	0. 68	20. 1
U15	61. 56	70. 19	96.	0. 33	1. 19	23. 8
U13	38. 88	59. 07	107.	0. 50	1. 12	23. 4
AF1	35. 27	69. 82	59.	0. 52	0. 60	20. 9
AF2	33. 09	64. 23	63.	0. 65	0. 79	23. 0
NPL	28. 21	84. 14	104.	0. 30	1. 03	20. 1
INE	15. 97	78. 45	58.	0. 69	1. 04	24. 3
INF	27. 76	79. 30	132.	0. 51	1. 08	23. 3
INH	22. 57	79. 33	137.	0. 66	1. 06	24. 3
ING	11. 13	77. 85	97.	0. 64	0. 68	22. 1
IND	25. 05	72. 98	35.	0. 74	0. 91	24. 1
INI	19. 57	76. 22	161.	0. 79	0. 79	23. 8
THA	13. 38	100. 68	171.	0. 63	1. 41	25. 5
BRM	19. 15	96. 97	174.	0. 61	1. 79	26. 3
CHA	40. 53	85. 02	90.	1. 02	1. 76	28. 7
CHB	31. 45	88. 49	111.	0. 72	1. 74	26. 9
CHD	27. 88	102. 31	154.	0. 79	1. 28	26. 3
CHC	36. 61	98. 26	100.	0. 80	1. 38	26. 6
CH4	38. 83	105. 03	163.	0. 30	0. 92	20. 2
CH5	37. 91	101. 02	136.	0. 41	1. 39	24. 0
CH6	35. 40	95. 66	103.	0. 57	1. 05	23. 9
CH7	30. 12	103. 51	131.	0. 55	1. 09	24. 1
CH9	25. 20	101. 53	144.	0. 54	0. 93	23. 1
CBG	12. 56	104. 95	148.	0. 44	0. 47	19. 3
VTD	16. 38	105. 52	174.	0. 48	1. 64	25. 0
INJ	20. 54	84. 72	60.	0. 43	0. 80	21. 2
INA	26. 26	92. 37	160.	0. 70	0. 80	23. 4
INL	24. 51	86. 07	136.	0. 45	0. 78	21. 3
INK	11. 24	93. 47	177.	0. 30	1. 04	19. 9

5A2

APPENDICE 2 - Annexe 2

(Partie Centrale)

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	KHS I 1	DNK I 1	F D 1	YEM D 1	IRQ I 1	OMA D 1	?	?	?	?
1	5.9	3.9	3.2	6.8	7.4	7.2	*****	*****	*****	*****
	?	RRW D 1	?	?	?	?	?	?	?	?
1	*****	6.1	*****	*****	*****	*****	*****	*****	*****	*****
	SDZ I 1	AFZ D 1	TGK I 1	SYR D 1	UO9 I 1	BHR I 1	?	?	?	AF2 D 1
2	5.8	7.2	9.1	6.2	7.6	7.6	*****	*****	*****	4.2
	ALB D 1	?	?	?	REU D 1	?	?	?	?	?
2	-5.9	*****	*****	*****	9.2	*****	*****	*****	*****	*****
	NMB I 1	FNL I 1	LSO I 1	AFI D 1	MDG I 1	OMB D 1	?	PA5 I 1	?	?
3	4.6	13.1	0.4	6.5	10.0	5.8	*****	-1.3	*****	*****
	EGY D 1	BDI D 1	?	?	?	?	?	?	?	?
3	2.0	6.0	*****	*****	*****	*****	*****	*****	*****	*****
	SD3 I 1	ISR D 1	KEN D 1	YMS I 1	UO1 D 1	QAT I 1	?	IRN D 1	U17 I 1	NPL D 1
4	4.4	0.4	10.6	2.4	0.1	-2.8	*****	-4.0	0.1	-5.8
	?	AFX D 1	?	?	?	?	?	?	?	?
4	*****	5.4	*****	*****	*****	*****	*****	*****	*****	*****
	KHS I 1	DNK I 1	?	YEM D 1	IRQ I 1	OMA D 1	?	PA3 I 1	CLN I 1	?
5	5.9	10.9	*****	6.4	3.3	-1.5	*****	-3.9	-2.9	*****
	?	RRW D 1	?	?	?	?	?	?	UO3 D 1	?
5	*****	6.1	*****	*****	*****	*****	*****	*****	-2.3	*****
	SDZ I 1	AFZ D 1	TGK I 1	SYR D 1	UO9 I 1	BHR I 1	?	?	?	AF2 D 1
6	5.8	7.2	9.1	6.1	7.5	7.6	*****	*****	*****	3.4
	ALB D 1	?	?	?	REU D 1	?	?	?	?	?
6	-5.9	*****	*****	*****	9.2	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	NMB I 1	FNL I 1	LSO I 1	AFI D 1	MDG I 1	OMB D 1	?	PA5 I 1	?	?
7	4.6	13.1	0.4	6.5	10.0	5.8	*****	-1.3	*****	*****
	EGY D 1	BDI D 1	?	?	?	?	?	?	?	?
7	2.0	6.0	*****	*****	*****	*****	*****	*****	*****	*****
	SD3 I 1	ISR D 1	KEN D 1	YMS I 1	U01 D 1	QAT I 1	?	IRN D 1	U17 I 1	NPL D 1
8	4.4	0.5	10.7	2.4	0.1	-2.8	*****	-4.0	0.9	-5.1
	?	AFX D 1	?	?	?	?	?	?	?	?
8	*****	5.4	*****	*****	*****	*****	*****	*****	*****	*****
	RHS I 1	DNK I 1	?	YEM D 1	IRQ I 1	OMA D 1	?	PA3 I 1	CLN I 1	?
9	5.9	10.9	*****	6.4	3.3	-1.5	*****	-3.7	-0.9	*****
	?	RKW D 1	?	?	?	?	?	?	U03 D 1	?
9	*****	6.1	*****	*****	*****	*****	*****	*****	-0.6	*****
	SD2 I 1	AFZ D 1	TGK I 1	SYR D 1	U09 I 1	BHR I 1	?	?	?	AF2 D 1
10	5.8	7.2	9.1	6.1	7.5	7.6	*****	*****	*****	3.4
	ALB D 1	?	?	?	REU D 1	?	?	?	?	?
10	-5.9	*****	*****	*****	9.2	*****	*****	*****	*****	*****
	NMB I 1	FNL I 1	LSO I 1	AFI D 1	MDG I 1	OMB D 1	?	PA5 I 1	?	?
11	4.6	13.0	0.4	6.5	10.0	5.8	*****	-1.2	*****	*****
	EGY D 1	BDI D 1	?	?	?	?	?	?	?	?
11	2.1	6.1	*****	*****	*****	*****	*****	*****	*****	*****
	SD3 I 1	ISR D 1	KEN D 1	YMS I 1	U01 D 1	QAT I 1	?	IRN D 1	MLD D 1	NPL D 1
12	4.4	1.0	11.1	2.4	0.0	-2.8	*****	-3.7	-0.5	-1.1
	?	AFY I 1	?	?	?	?	?	?	U12 I 1	?
12	*****	3.4	*****	*****	*****	*****	*****	*****	3.6	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	RHS I 1	RKW D 1	?	YEM D 1	IRQ I 1	OMA D 1	?	PA4 I 1	CLN I 1	?
13	5.5	6.1	*****	6.4	6.9	7.1	*****	2.2	6.6	*****
	?	S I 1	?	?	?	?	?	?	U16 D 1	?
13	*****	14.2	*****	*****	*****	*****	*****	*****	1.9	*****
	SD2 I 1	AFZ D 1	TGK I 1	SYR D 1	UO9 I 1	BHR I 1	?	?	?	AF2 D 1
14	5.8	7.2	9.1	6.2	7.3	7.6	*****	*****	*****	3.7
	ALB D 1	?	?	?	REU D 1	?	?	?	?	?
14	-5.9	*****	*****	*****	9.2	*****	*****	*****	*****	*****
	NMB I 1	BDI D 1	LSO I 1	AFI D 1	MDG I 1	OMB D 1	?	PA1 I 1	?	?
15	4.6	4.8	0.4	6.5	10.0	-1.9	*****	-3.8	*****	*****
	EGY D 1	NUR I 1	?	?	?	?	?	?	?	?
15	2.0	12.9	*****	*****	*****	*****	*****	*****	*****	*****
	SD3 I 1	ISR D 1	KEN D 1	YMS I 1	UO1 D 1	QAT I 1	?	IRN D 1	MLD D 1	?
16	4.4	1.0	11.1	2.4	0.0	-2.8	*****	-3.6	-0.5	*****
	?	AFY I 1	?	?	?	?	?	?	U12 I 1	?
16	*****	3.4	*****	*****	*****	*****	*****	*****	3.6	*****
	RHS I 1	RRW D 1	?	YEM D 1	?	OMA D 1	?	PA4 I 1	CLN I 1	?
17	5.5	7.7	*****	6.4	*****	7.7	*****	-1.1	7.5	*****
	?	S I 1	?	?	?	?	?	?	U16 D 1	?
17	*****	14.8	*****	*****	*****	*****	*****	*****	4.8	*****
	SD2 I 1	?	TGK I 1	SYR D 1	UO9 I 1	?	?	?	?	AF1 I 1
18	5.8	*****	9.1	7.2	9.4	*****	*****	*****	*****	11.1
	ALB D 1	?	?	?	REU D 1	?	?	?	?	?
18	-5.9	*****	*****	*****	9.4	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	NMB I 1	BUI D 1	LSO I 1	AFI D 1	MDG I 1	OMB D 1	?	PA1 I 1	?	?
19	4.6	4.8	0.4	6.5	10.1	-2.2	*****	-4.3	*****	*****
	EGY D 1	NOR I 1	?	?	?	?	?	?	?	?
19	2.1	13.1	*****	*****	*****	*****	*****	*****	*****	*****
	SD3 I 1	?	KEN D 1	YMS I 1	U09 I 1	?	?	?	MLD D 1	AF1 I 1
20	4.4	*****	7.2	2.6	7.5	*****	*****	*****	5.4	8.0
	?	?	?	?	?	?	?	?	U15 I 1	?
20	*****	*****	*****	*****	*****	*****	*****	*****	10.8	*****
	MLT I 1	NUC I 1	ETH I 1	ARU D 1	U10 I 1	OMC D 1	?	PA2 I 1	?	?
21	7.0	7.2	-2.0	-6.1	5.2	-5.4	*****	-1.4	*****	*****
	?	SWZ I 1	?	?	COM D 1	?	?	?	?	?
21	*****	-8.0	*****	*****	5.6	*****	*****	*****	*****	*****
	SD1 I 1	AGL I 1	UGA D 1	LBN I 1	BLR D 1	KWI I 1	MR1 ?	?	?	AF1 I 1
22	-3.2	-3.3	-5.1	8.3	-0.2	5.8	14.7	*****	*****	11.1
	POL D 1	MOZ D 1	?	?	?	?	?	?	?	?
22	-0.9	-5.3	*****	*****	*****	*****	*****	*****	*****	*****
	SMK I 1	TUK D 1	MWI I 1	ART D 1	MYI ?	OMD D 1	?	PA2 I 1	?	?
23	2.5	-4.7	4.9	-5.2	9.1	-3.6	*****	-1.6	*****	*****
	BOT D 1	NOR I 1	?	?	?	?	?	?	?	?
23	3.0	2.8	*****	*****	*****	*****	*****	*****	*****	*****
	ZMB I 1	IS2 D 1	SOM D 1	JUR I 1	U02 D 1	UAE I 1	?	?	MLD D 1	AF1 I 1
24	2.2	3.5	4.5	6.9	-1.0	5.6	*****	*****	5.4	7.4
	?	AFS D 1	?	?	?	?	?	?	U15 I 1	?
24	*****	2.4	*****	*****	*****	*****	*****	*****	3.0	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	MLT I 1	NDC I 1	ETH I 1	ARU D 1	U10 I 1	OMC D 1	?	?	U03 D 1	?
25	7.0	4.9	-2.0	-6.2	-0.1	-5.6	*****	*****	2.7	*****
	?	SWZ I 1	?	?	COM D 1	?	?	?	?	?
25	*****	-8.0	*****	*****	5.6	*****	*****	*****	*****	*****
	SD1 I 1	AGL I 1	UGA D 1	LBN I 1	BLR D 1	KWT I 1	MR1 ?	?	U04 I 1	?
26	-3.2	-3.3	-5.1	8.3	-0.9	5.8	15.0	*****	7.9	*****
	POL D 1	MOZ D 1	?	?	?	?	?	?	?	?
26	-1.0	-5.3	*****	*****	*****	*****	*****	*****	*****	*****
	SMR I 1	TUR D 1	MWI I 1	ART D 1	MYT ?	OMD D 1	?	?	U13 D 1	?
27	1.2	-5.4	4.9	-5.2	9.2	-3.8	*****	*****	-0.2	*****
	BDI D 1	NUC I 1	?	?	?	?	?	?	?	?
27	3.0	-0.6	*****	*****	*****	*****	*****	*****	*****	*****
	ZMB I 1	IS2 D 1	SOM D 1	JOR I 1	UOZ D 1	UAE I 1	MR2 ?	?	?	?
28	2.2	3.5	4.5	6.9	7.2	5.6	14.8	*****	*****	*****
	?	AFS D 1	?	?	?	?	?	?	?	?
28	*****	2.4	*****	*****	*****	*****	*****	*****	*****	*****
	MLT I 1	S I 1	ETH I 1	ARU D 1	U10 I 1	OMC D 1	?	?	U03 D 1	?
29	7.0	6.1	-2.0	-6.2	-0.1	-5.6	*****	*****	2.7	*****
	?	SWZ I 1	?	?	COM D 1	?	?	?	?	?
29	*****	-8.0	*****	*****	5.6	*****	*****	*****	*****	*****
	SD1 I 1	AGL I 1	UGA D 1	LBN I 1	UKR D 1	KWT I 1	MR1 ?	?	U04 I 1	?
30	-3.2	-3.3	-5.1	8.3	-1.3	5.8	14.9	*****	7.3	*****
	POL D 1	MOZ D 1	?	?	?	?	?	?	?	?
30	-0.5	-5.3	*****	*****	*****	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	SMR I 1	TUR D 1	MWI I 1	ART D 1	MYI ?	OMU D 1	?	?	U13 D 1	?
31	1.2	-5.4	4.9	-5.2	9.2	-3.8	*****	*****	-0.2	*****
	BOT D 1	NDC I 1	?	?	?	?	?	?	?	?
31	3.0	-0.6	*****	*****	*****	*****	*****	*****	*****	*****
	ZMB I 1	IS2 D 1	SOM D 1	JOR I 1	UO2 D 1	UAE I 1	MR2 ?	?	?	?
32	2.2	3.5	4.5	6.9	7.2	5.6	14.8	*****	*****	*****
	?	AFS D 1	?	?	?	?	?	?	?	?
32	*****	2.4	*****	*****	*****	*****	*****	*****	*****	*****
	MLT I 1	NUC I 1	ETH I 1	ARU D 1	U10 I 1	OMC D 1	?	?	UO3 D 1	?
33	7.0	4.9	-2.0	-6.2	-0.1	-5.6	*****	*****	2.7	*****
	?	SWZ I 1	?	?	COM D 1	?	?	?	?	?
33	*****	-8.0	*****	*****	5.6	*****	*****	*****	*****	*****
	SD1 I 1	AGL I 1	UGA D 1	LBN I 1	UKR D 1	KWT I 1	MR1 ?	?	UO4 I 1	?
34	-3.2	-3.3	-5.1	8.3	-1.3	5.8	14.9	*****	7.3	*****
	PUL D 1	MOZ D 1	?	?	?	?	?	?	?	?
34	-0.5	-5.3	*****	*****	*****	*****	*****	*****	*****	*****
	SMR I 1	TUR D 1	MWI I 1	ART D 1	MYI ?	OMU D 1	?	?	U14 D 1	?
35	1.2	-5.3	4.9	-5.2	9.2	-3.5	*****	*****	2.5	*****
	BOT D 1	NDC I 1	?	?	?	?	?	?	?	?
35	3.0	-0.6	*****	*****	*****	*****	*****	*****	*****	*****
	ZMB I 1	IS2 D 1	SOM D 1	JOR I 1	UO2 D 1	UAE I 1	MR2 ?	?	?	?
36	2.2	3.5	4.5	6.9	7.2	5.6	14.8	*****	*****	*****
	?	AFS D 1	?	?	?	?	?	?	?	?
36	*****	2.4	*****	*****	*****	*****	*****	*****	*****	*****

	-4.0	2.0	8.0	14.0	20.0	26.0	32.0	38.0	44.0	50.0
	MLT I 1	NDC I 1	ETH I 1	ARU D 1	U10 I 1	OMC D 1	?	?	U03 D 1	?
37	7.0	4.9	-2.0	-6.2	-0.1	-5.6	*****	*****	2.7	*****
	?	SWZ I 1	?	?	COM D 1	?	?	?	?	?
37	*****	-8.0	*****	*****	5.6	*****	*****	*****	*****	*****
	SD1 I 1	AGL I 1	UGA D 1	LBN I 1	UKR D 1	KWT I 1	MR1 ?	?	U04 I 1	?
38	-3.2	-3.3	-5.1	8.3	-1.3	5.7	14.9	*****	7.3	*****
	POL D 1	MOZ D 1	?	?	?	?	?	?	?	?
38	-0.5	-5.3	*****	*****	*****	*****	*****	*****	*****	*****
	SMR I 1	TUR D 1	MWI I 1	ART D 1	U10 I 1	OMD D 1	?	?	U14 D 1	?
39	1.2	-6.5	4.9	-5.2	-5.5	-4.6	*****	*****	0.6	*****
	BOT U 1	NDC I 1	?	?	MYT ?	?	?	?	?	?
39	3.0	-0.6	*****	*****	6.4	*****	*****	*****	*****	*****
	ZMB I 1	IS2 D 1	SOM D 1	JOR I 1	U11 D 1	KWT I 1	MR2 ?	?	?	?
40	2.3	3.6	7.5	6.9	11.7	5.7	15.5	*****	*****	*****
	?	AFS D 1	?	?	?	?	?	?	?	?
40	*****	2.4	*****	*****	*****	*****	*****	*****	*****	*****

```
      *    56.0  *    62.0  *    68.0  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INE D 1  * THA D 1  * VTD I 1  *
1     *     9.8  *    -6.0  *    -7.2  *
      *          *          *          *
      *      ?   * CHA I 1  *      ?   *
1     *   *****  *    -1.3  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INF I 1  * CHC D 1  * INA I 1  *
2     *    -1.2  *    -5.5  *    -3.5  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
2     *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INE D 1  * THA D 1  * VTD I 1  *
3     *     8.9  *    -6.0  *    -7.2  *
      *          *          *          *
      *      ?   * CHA I 1  *      ?   *
3     *   *****  *    -3.5  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INF I 1  * CHC D 1  * INA I 1  *
4     *    -5.1  *    -5.5  *    -5.0  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
4     *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INE D 1  * THA D 1  * VTD I 1  *
5     *     3.8  *    -6.0  *    -7.2  *
      *          *          *          *
      *      ?   * CHA I 1  *      ?   *
5     *   *****  *    -3.6  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INF I 1  * CHC D 1  * INA I 1  *
6     *    -1.2  *    -5.5  *    -3.5  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
6     *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
```

```
      *    56.0  *    62.0  *    68.0  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INE D 1  * THA D 1  * VTD I 1  *
7     *     8.9  *    -6.0  *    -7.2  *
      *          *          *          *
      *      ?   * CHA I 1  *      ?   *
7     *   *****  *    -3.5  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INF I 1  * CH4 D 1  * INA I 1  *
8     *    -4.7  *    -1.9  *    -3.4  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
8     *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INH D 1  * CHB I 1  *      ?   *
9     *     0.2  *    -1.0  *   *****  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
9     *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * ING I 1  * CH6 D 1  * INL I 1  *
10    *     9.3  *     7.2  *     5.0  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
10    *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * INH D 1  * CHB I 1  *      ?   *
11    *     1.4  *    -1.6  *   *****  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
11    *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
      *          *          *          *
      * ING I 1  * CH5 D 1  * INL I 1  *
12    *     4.4  *     9.8  *    -0.0  *
      *          *          *          *
      *      ?   *      ?   *      ?   *
12    *   *****  *   *****  *   *****  *
      *          *          *          *
      ********************************
```

	56.0	62.0	68.0
	INH D 1	CHB I 1	?
13	0.5	1.1	*****
	?	?	?
13	*****	*****	*****
	ING I 1	?	INL I 1
14	9.3	*****	5.0
	?	?	?
14	*****	*****	*****
	INH D 1	CHB I 1	?
15	-0.3	-1.3	*****
	?	?	?
15	*****	*****	*****
	ING I 1	CH/ D 1	INL I 1
16	4.4	8.0	5.0
	?	?	?
16	*****	*****	*****
	IND D 1	BRM I 1	INJ D 1
17	-1.1	-13.5	-1.3
	?	?	?
17	*****	*****	*****
	INI I 1	CHD D 1	INK I 1
18	6.0	-1.2	5.7
	?	CBG I 1	?
18	*****	-14.7	*****

	56.0	62.0	68.0
	IND D 1	BRM I 1	INJ D 1
19	-1.4	-13.5	1.2
	?	?	?
19	*****	*****	*****
	INI I 1	CHD D 1	INK I 1
20	6.0	-1.3	5.7
	?	CBG I 1	?
20	*****	-14.7	*****
	IND D 1	BRM I 1	INJ D 1
21	-1.3	-13.5	1.3
	?	?	?
21	*****	*****	*****
	INI I 1	CHD D 1	INK I 1
22	6.1	-1.1	5.7
	?	CBG I 1	?
22	*****	-14.7	*****
	IND D 1	BRM I 1	INJ D 1
23	-1.5	-13.5	0.8
	?	?	?
23	*****	*****	*****
	INI I 1	CH9 D 1	INK I 1
24	6.1	-1.1	5.7
	?	CBG I 1	?
24	*****	-14.7	*****

5A2

APPENDICE 2 - Annexe 3

(Partie Centrale)

ANALYSE DES BROUILLAGES DES PAYS A MARGE NEGATIVE

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)							
SD1	22	-3.2	AGL	34.1	UGA	29.4				
SD1	26	-3.2	AGL	34.1	UGA	29.4				
SD1	30	-3.2	AGL	34.1	UGA	29.4				
SD1	34	-3.2	AGL	34.1	UGA	29.4				
SD1	38	-3.2	AGL	34.1	UGA	29.4				
ALB	3	-5.9	EGY	9.1						
ALB	7	-5.9	EGY	9.1						
ALB	11	-5.9	EGY	9.1						
ALB	15	-5.9	EGY	9.1						
ALB	19	-5.9	EGY	9.1						
POL	22	-0.9	SD1	37.5	BLR	31.2				
POL	26	-1.0	SD1	37.5	BLR	31.2				
POL	30	-0.5	SD1	37.5	UKR	31.8				
POL	34	-0.5	SD1	37.5	UKR	31.8				
POL	38	-0.5	SD1	37.5	UKR	31.8				
AGL	22	-3.3	MOZ	27.8						
AGL	26	-3.3	MOZ	27.8						
AGL	30	-3.3	MOZ	27.8						
AGL	34	-3.3	MOZ	27.8						
AGL	38	-3.3	MOZ	27.8						
TUR	23	-4.7	ART	28.2	OMD	31.9				
TUR	27	-5.4	NDC	33.5	ART	28.2	OMD	31.9		
TUR	31	-5.4	NDC	33.5	ART	28.2	OMD	31.9		
TUR	35	-5.3	NDC	33.5	ART	28.2	OMD	31.9		
TUR	39	-6.5	NDC	33.5	ART	28.2	U10	30.6	OMD	31.9
SWZ	22	-8.0	AGL	7.1						
SWZ	26	-8.0	AGL	7.1						
SWZ	30	-8.0	AGL	7.1						
SWZ	34	-8.0	AGL	7.1						
SWZ	38	-8.0	AGL	7.1						
MOZ	22	-5.3	AGL	25.8						
MOZ	26	-5.3	AGL	25.8						
MOZ	30	-5.3	AGL	25.8						
MOZ	34	-5.3	AGL	25.8						
MOZ	38	-5.3	AGL	25.8						
NDC	27	-0.6	TUR	31.1						
NDC	31	-0.6	TUR	31.1						
NDC	35	-0.6	TUR	31.1						
NDC	39	-0.6	TUR	31.1						
ETH	21	-2.0	ARU	30.3	OMC	35.2				
ETH	25	-2.0	ARU	30.3	OMC	35.2				
ETH	29	-2.0	ARU	30.3	OMC	35.2				
ETH	33	-2.0	ARU	30.3	OMC	35.2				
ETH	37	-2.0	ARU	30.3	OMC	35.2				
UGA	22	-5.1	SD1	28.6	MOZ	30.1				
UGA	26	-5.1	SD1	28.6	MOZ	30.1				
UGA	30	-5.1	SD1	28.6	MOZ	30.1				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
UGA	34	-5.1	SD1	28.6	MOZ	30.1		
UGA	38	-5.1	SD1	28.6	MOZ	30.1		
ARU	21	-6.1	ETH	29.5	OMC	26.8		
ARU	25	-6.2	ETH	29.5	OMC	26.8		
ARU	29	-6.2	ETH	29.5	OMC	26.8		
ARU	33	-6.2	ETH	29.5	OMC	26.8		
ARU	37	-6.2	ETH	29.5	OMC	26.8		
ART	23	-5.2	TUR	32.8	OMD	26.8		
ART	27	-5.2	TUR	32.8	OMD	26.8		
ART	31	-5.2	TUR	32.8	OMD	26.8		
ART	35	-5.2	TUR	32.8	OMD	26.8		
ART	39	-5.2	TUR	32.8	OMD	26.8		
U10	25	-0.1	ARU	37.4	U03	32.4		
U10	29	-0.1	ARU	37.4	U03	32.4		
U10	33	-0.1	ARU	37.4	U03	32.4		
U10	37	-0.1	ARU	37.4	U03	32.4		
U10	39	-5.5	TUR	32.3	ART	30.6	OMD	29.7
BLR	22	-0.2	POL	30.9				
BLR	26	-0.9	POL	30.9	U04	38.5		
UKR	30	-1.3	POL	30.6	U04	37.4		
UKR	34	-1.3	POL	30.6	U04	37.4		
UKR	38	-1.3	POL	30.6	U04	37.4		
U02	24	-1.0	U15	30.1				
OMA	5	-1.5	PA3	30.7	U03	39.4		
OMA	9	-1.5	PA3	30.7	U03	39.4		
OMB	15	-1.9	PA1	29.3				
OMB	19	-2.2	PA1	29.3				
QAT	4	-2.8	IRN	29.2				
QAT	8	-2.8	IRN	29.2				
QAT	12	-2.8	IRN	29.2				
QAT	16	-2.8	IRN	29.2				
OMC	21	-5.4	ETH	31.3	ARU	27.0		
OMC	25	-5.6	ETH	31.3	ARU	27.0		
OMC	29	-5.6	ETH	31.3	ARU	27.0		
OMC	33	-5.6	ETH	31.3	ARU	27.0		
OMC	37	-5.6	ETH	31.3	ARU	27.0		
OMD	23	-3.6	TUR	31.0	ART	30.1		
OMD	27	-3.8	TUR	31.0	ART	30.1		
OMD	31	-3.8	TUR	31.0	ART	30.1		
OMD	35	-3.5	TUR	31.0	ART	30.1		
OMD	39	-4.6	TUR	31.0	ART	30.1	U10	32.9
PA5	3	-1.3	OMB	37.7	CHA	30.5		
PA5	7	-1.3	OMB	37.7	CHA	30.5		
PA5	11	-1.2	OMB	37.7	INH	37.9	CHB	31.4
PA1	15	-3.8	OMB	29.2	INH	35.6	CHB	33.8
PA1	19	-4.3	OMB	29.2	IND	30.3		
PA2	21	-1.4	OMC	34.7	IND	31.3		
PA2	23	-1.6	OMD	34.2	IND	31.3		
PA3	5	-3.9	OMA	31.7	U03	30.3	CHA	35.2
PA3	9	-3.7	OMA	31.7	U03	30.3		
PA4	17	-1.1	OMA	38.5	IND	30.7		

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
IRN	4	-4.0	U01	31.2	QAT	30.4		
IRN	8	-4.0	U01	31.2	QAT	30.4		
IRN	12	-3.7	U01	31.2	QAT	30.4		
IRN	16	-3.6	U01	31.2	QAT	30.4		
CLN	5	-2.9	U03	30.5	INE	32.2		
CLN	9	-0.9	U03	30.5				
MLD	12	-0.5	U12	39.3	ING	31.5		
MLD	16	-0.5	U12	39.3	ING	31.5		
U03	5	-2.3	PA3	34.6	CHA	30.8		
U03	9	-0.6	IRQ	39.6	PA3	34.6	CHB	34.6
U13	27	-0.2	TUR	35.9	ART	38.4	OMD	33.7
U13	31	-0.2	TUR	35.9	ART	38.4	OMD	33.7
NPL	4	-5.8	INF	27.7	CHC	33.3	INA	31.5
NPL	8	-5.1	INF	27.7	INA	31.5		
NPL	12	-1.1	IRN	38.5	INL	30.9		
INF	2	-1.2	AF2	37.6	CHC	35.9	INA	32.1
INF	4	-5.1	NPL	28.3	INA	32.1		
INF	6	-1.2	AF2	37.6	CHC	35.9	INA	32.1
INF	8	-4.7	NPL	28.3	INA	32.1		
INH	15	-0.3	PA1	34.6	CHB	33.4		
IND	17	-1.1	PA4	30.3				
IND	19	-1.4	OMB	37.6	PA1	30.5		
IND	21	-1.3	OMC	37.3	PA2	30.7		
IND	23	-1.5	OMD	36.1	PA2	30.7		
THA	1	-6.0	CHA	30.2	VTD	26.9		
THA	3	-6.0	CHA	30.2	VTD	26.9		
THA	5	-6.0	CHA	30.2	VTD	26.9		
THA	7	-6.0	CHA	30.2	VTD	26.9		
BRM	18	-13.5	CBG	1.5				
BRM	18	-13.5	CBG	1.5				
BRM	20	-13.5	CBG	1.5				
BRM	20	-13.5	CBG	1.5				
BRM	22	-13.5	CBG	1.5				
BRM	22	-13.5	CBG	1.5				
BRM	24	-13.5	CBG	1.5				
CHA	1	-1.3	THA	30.1				
CHA	3	-3.5	PA5	31.7	THA	30.1		
CHA	5	-3.6	U03	32.1	THA	30.1		
CHA	7	-3.5	PA5	31.7	THA	30.1		
CHB	9	-1.0	PA3	38.5	U03	34.5	INH	33.0
CHB	11	-1.6	PA5	32.1	INH	33.0		
CHB	15	-1.3	PA1	32.6	INH	33.0		
CHD	18	-1.2	CBG	30.1				
CHD	20	-1.3	CBG	30.1				
CHD	22	-1.1	CBG	30.1				
CHC	1	-5.5	THA	9.7				
CHC	2	-1.0	INA	30.5				
CHC	3	-5.5	THA	9.7				
CHC	3	-5.5	THA	9.7				
CHC	4	-1.6	INA	30.5				
CHC	5	-5.5	THA	9.7				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
CHC	5	-5.5	THA	9.7				
CHC	6	-1.0	INA	30.5				
CHC	7	-5.5	THA	9.7				
CH4	7	-1.9	THA	13.5				
CH9	24	-1.1	CBG	30.2				
CBG	17	-14.7	BRM	0.3				
CBG	18	-3.5	CHD	27.8				
CBG	19	-14.7	BRM	0.3				
CBG	19	-14.7	BRM	0.3				
CBG	20	-3.5	CHD	27.8				
CBG	21	-14.7	BRM	0.3				
CBG	21	-14.7	BRM	0.3				
CBG	22	-3.5	CHD	27.8				
CBG	23	-14.7	BRM	0.3				
CBG	23	-14.7	BRM	0.3				
CBG	24	-2.3	CH9	28.9				
VTD	1	-2.2	THA	29.0				
VTD	2	-7.2	INA	7.8				
VTD	2	-7.2	INA	7.8				
VTD	3	-2.3	THA	29.0				
VTD	4	-7.2	INA	7.8				
VTD	4	-7.2	INA	7.8				
VTD	5	-2.3	THA	29.0				
VTD	6	-7.2	INA	7.8				
VTD	6	-7.2	INA	7.8				
VTD	7	-2.3	THA	29.0				
VTD	8	-7.2	INA	7.8				
INA	1	-3.4	VTD	11.7				
INA	2	-3.5	INF	31.2	CHC	30.0		
INA	3	-3.4	VTD	11.7				
INA	3	-3.4	VTD	11.7				
INA	4	-5.0	NPL	31.5	INF	31.2	CHC	30.0
INA	5	-3.4	VTD	11.7				
INA	5	-3.4	VTD	11.7				
INA	6	-3.5	INF	31.2	CHC	30.0		
INA	7	-3.4	VTD	11.7				
INA	7	-3.4	VTD	11.7				
INA	8	-2.8	NPL	31.5	INF	31.2		
INL	12	-0.0	NPL	31.4				

APPENDICE 3 - Annexe 1

(Partie Est)

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
CLN	9.00	79.49	178.	0.30	0.32	14.9
MLD	6.00	73.11	3.	0.30	0.48	16.7
U17	41.03	73.93	79.	0.42	0.67	20.8
U03	44.65	64.31	109.	1.24	2.28	30.7
U12	63.56	54.35	75.	0.33	0.79	21.8
U16	38.58	70.86	111.	0.37	0.68	20.1
U15	61.56	70.19	96.	0.33	1.19	23.8
AF1	35.27	69.82	59.	0.52	0.60	20.9
AF2	33.09	64.23	63.	0.65	0.79	23.0
NPL	28.21	84.14	104.	0.30	1.03	20.1
INE	15.97	78.45	58.	0.69	1.04	24.3
INF	27.76	79.30	132.	0.51	1.08	23.3
INH	22.57	79.33	137.	0.66	1.06	24.3
ING	11.13	77.85	97.	0.64	0.68	22.1
IND	25.05	72.98	35.	0.74	0.91	24.1
INI	19.57	76.22	161.	0.79	0.79	23.8
IHA	13.38	100.68	171.	0.63	1.41	25.5
BRM	19.15	96.97	174.	0.61	1.79	26.3
CHA	40.53	85.02	90.	1.02	1.76	28.7
CHB	31.45	88.49	111.	0.72	1.74	26.9
CHD	27.88	102.31	154.	0.79	1.28	26.3
CHC	36.61	98.26	100.	0.80	1.38	26.6
CH4	38.83	105.03	163.	0.30	0.92	20.2
CH5	37.91	101.02	136.	0.41	1.39	24.0
CH6	35.40	95.66	103.	0.57	1.05	23.9
CH7	30.12	103.51	131.	0.55	1.09	24.1
CH9	25.20	101.53	144.	0.54	0.93	23.1
CBG	12.56	104.96	96.	0.46	0.50	19.6
VTD	16.58	105.52	174.	0.48	1.64	25.0
INB	33.43	75.99	159.	0.61	0.75	22.4
INC	11.27	72.76	168.	0.31	0.65	18.6
INJ	20.54	84.72	60.	0.43	0.80	21.2
INA	26.26	92.37	160.	0.70	0.80	23.4
INL	24.51	86.07	136.	0.45	0.78	21.3
INK	11.24	93.47	177.	0.30	1.04	19.9
BGD	23.60	90.37	140.	0.42	0.73	20.7
LAO	17.98	103.62	147.	0.40	1.02	21.9
ID1	1.39	98.92	147.	0.49	1.03	22.8
ID3	-7.73	110.92	94.	0.52	0.84	22.3
ID2	-3.71	103.91	157.	0.86	0.98	25.0

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
SNG	1.37	103.83	59.	0.30	0.30	12.9
CHY	27.43	111.59	149.	0.43	0.61	20.2
CHZ	23.83	108.57	92.	0.53	0.74	21.9
CH3	35.13	108.72	4.	0.44	0.71	21.1
CH8	26.79	106.68	88.	0.47	0.57	20.2
ML1	4.14	102.09	134.	0.41	0.80	20.8
ML2	3.92	114.16	51.	0.54	1.07	23.5
CHE	38.05	111.86	169.	0.87	1.30	26.8
CHF	27.30	109.44	4.	0.87	1.07	25.6
CHJ	39.28	116.08	160.	0.40	0.60	20.2
CHK	37.43	112.21	6.	0.38	0.53	19.2
CHL	41.89	111.43	70.	0.60	0.79	23.1
CHW	33.94	113.77	139.	0.40	0.60	19.9
CHX	30.84	111.86	109.	0.41	0.71	20.7
U05	57.69	89.32	102.	0.88	1.50	28.1
U18	51.58	94.28	79.	0.30	0.77	19.9
U19	63.42	98.55	134.	0.35	0.91	23.0
MNG	46.64	102.25	95.	0.61	1.93	27.0
ID4	-1.44	111.07	106.	0.61	0.79	22.6
ID5	-0.37	116.21	17.	0.54	0.99	23.1
ID6	-1.71	122.13	21.	0.57	1.05	23.7
ID7	-8.89	122.00	92.	0.56	0.96	23.2
PHL	10.47	122.49	8.	0.68	1.87	27.0
CHO	48.11	124.89	123.	0.46	1.34	24.6
CHU	25.93	118.15	21.	0.42	0.51	19.2
CHT	27.44	115.71	5.	0.47	0.57	20.2
CHM	41.75	121.12	124.	0.39	0.76	21.0
CHZ	21.96	112.21	55.	0.61	0.92	23.3
CHS	29.19	120.46	160.	0.42	0.48	18.9
CHN	43.76	124.40	122.	0.36	0.99	21.9
CHI	21.14	115.27	76.	1.25	1.44	28.4
CHR	32.00	117.27	159.	0.37	0.60	19.5
CHQ	32.97	119.57	118.	0.32	0.67	19.3
CHG	42.04	123.01	7.	0.93	2.41	29.8
CHP	36.46	118.52	75.	0.38	0.58	19.5
CH1	12.95	113.77	24.	1.15	1.85	29.0
CHH	31.32	118.33	3.	0.82	1.32	26.4
CHV	23.85	121.49	38.	0.41	0.57	19.6
KOR	36.22	127.89	10.	0.30	0.42	16.9
KRE	39.77	127.02	55.	0.43	0.46	19.1

CODE PAYS	CENTRE DE LA ZONE LATITUDE	LONGITUDE	AZIMUT GRAND AXE	DEMI PETIT AXE	DEMI GRAND AXE	PUISSANCE EMISSION REELLE
ID8	-1. 85	128. 21	15.	0. 65	0. 98	23. 8
ID9	-4. 33	135. 42	172.	0. 93	1. 00	25. 6
AU1	-24. 64	121. 56	28.	1. 35	2. 17	30. 5
AU2	-18. 62	133. 18	8.	0. 85	1. 79	27. 7
AU3	-30. 31	135. 07	12.	0. 94	1. 32	26. 9
AU4	-38. 41	144. 82	5.	0. 53	0. 75	22. 5
AU5	-21. 56	143. 39	174.	0. 95	1. 88	28. 6
AU6	-31. 96	146. 35	36.	0. 60	1. 19	25. 0
U06	57. 26	112. 82	76.	0. 86	1. 39	27. 6
U20	53. 46	108. 23	70.	0. 39	1. 08	22. 8
J	31. 58	134. 53	32.	1. 65	1. 76	30. 6
PNG	-6. 79	144. 18	29.	0. 81	1. 30	26. 1
NZL	-40. 92	172. 29	13.	0. 43	1. 37	24. 6
PNG	-6. 78	144. 32	51.	0. 94	1. 41	26. 9
NRU	-0. 50	166. 90	2.	0. 30	0. 30	13. 0
U07	54. 18	136. 95	22.	1. 12	1. 57	29. 0
U08	55. 49	155. 33	41.	1. 18	1. 45	29. 1
U21	65. 39	169. 41	132.	0. 30	1. 07	23. 7
NCL	-20. 92	165. 90	121.	0. 36	0. 57	19. 0
WAL	-14. 03	183. 14	70.	0. 30	0. 37	15. 8
NHB	-16. 40	168. 03	155.	0. 30	0. 95	20. 0
FJI	-17. 92	179. 45	148.	0. 49	0. 52	19. 9
NZL	-40. 94	172. 70	21.	0. 59	1. 33	25. 3
CKH	-19. 93	-159. 81	117.	0. 30	0. 78	19. 4
SMO	-13. 78	-172. 01	100.	0. 30	0. 34	14. 9
CKN	-11. 08	-162. 18	68.	0. 41	0. 99	21. 7
TKL	-8. 95	171. 84	55.	0. 30	0. 35	15. 0
NIU	-19. 00	-169. 87	3.	0. 30	0. 30	12. 9
TUN	-18. 13	-174. 72	6.	0. 36	0. 71	19. 8
OCE	-16. 36	-145. 01	87.	1. 77	2. 17	31. 5

5A2

APPENDICE 3 - Annexe 2

(Partie Est)

	-160.0	44.0	50.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0
	OCE ?	?	?	INE D 1	THA D 1	VTD I 1	ID3 D 1	CH3 D 1	ID6 D 1	CHO D 1
1	3.7	*****	*****	9.1	-6.1	-7.3	-0.5	0.1	-1.0	2.4
	?	?	?	?	CHA I 1	INB D 1	?	?	?	?
1	*****	*****	*****	*****	-5.4	-3.6	*****	*****	*****	*****
	?	?	AF2 D 1	INF I 1	CHC D 1	INA I 1	LAO D 1	CHX I 1	?	CHU D 1
2	*****	*****	4.3	-1.2	-5.6	-4.0	4.8	-1.8	*****	-0.0
	?	?	?	INE D 1	THA D 1	VTD I 1	ID3 D 1	CHE D 1	ID6 D 1	CHT I 1
3	*****	*****	*****	9.1	-6.1	-7.3	0.3	-4.1	-0.2	-1.9
	?	?	?	?	CHA I 1	INB D 1	?	?	?	?
3	*****	*****	*****	*****	-6.0	-3.6	*****	*****	*****	*****
	?	U17 I 1	NPL D 1	INF I 1	CHC D 1	INA I 1	BGD D 1	CHF I 1	?	CHM D 1
4	*****	2.8	-6.5	-5.2	-5.6	-7.4	-6.1	-0.2	*****	0.1
	?	?	?	?	?	?	SNG I 1	?	?	?
4	*****	*****	*****	*****	*****	*****	5.9	*****	*****	*****
	OCE ?	CLN I 1	?	INE D 1	THA D 1	VTD I 1	ID3 D 1	ML2 I 1	ID6 D 1	?
5	1.7	-2.8	*****	3.7	-6.1	-7.3	-0.7	-2.0	-2.0	*****
	?	U03 D 1	?	?	CHA I 1	INB D 1	?	?	?	?
5	*****	-2.9	*****	*****	-6.3	-4.9	*****	*****	*****	*****
	?	?	AF2 D 1	INF I 1	CHC D 1	INA I 1	LAO D 1	ML1 D 1	?	CHZ D 1
6	*****	*****	4.0	-1.2	-5.6	-4.0	0.8	5.8	*****	2.1
	?	?	?	INE D 1	THA D 1	VTD I 1	ID3 D 1	CHE D 1	ID6 D 1	CHS I 1
7	*****	*****	*****	9.1	-6.1	-7.3	-0.6	-2.2	-1.1	0.1
	?	?	?	?	CHA I 1	INB D 1	?	?	?	?
7	*****	*****	*****	*****	-6.0	-3.6	*****	*****	*****	*****

	-160.0	44.0	50.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0
	?	U17 I 1	NPL D 1	INF I 1	CH4 D 1	INA I 1	BGD D 1	CHF I 1	PHL I 1	CHN D 1
8	*****	4.6	-6.0	-4.7	-2.0	-6.3	-5.6	-0.3	1.0	-3.5
	?	?	?	?	?	?	SNG I 1	?	?	?
8	*****	*****	*****	*****	*****	*****	5.8	*****	*****	*****
	OCE ?	CLN I 1	?	INH D 1	CHB I 1	INC D 1	ID2 D 1	ML2 I 1	ID5 D 1	?
9	3.5	-0.7	*****	0.6	-0.4	8.2	-1.6	-3.7	-4.8	*****
	?	U03 D 1	?	?	?	?	?	?	?	?
9	*****	2.6	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	AF2 D 1	ING I 1	CH6 D 1	INL I 1	LAO D 1	ML1 D 1	ID7 I 1	CHI D 1
10	*****	*****	4.1	8.3	5.5	5.0	0.8	2.1	9.4	3.0
	?	?	?	INH D 1	CHB I 1	INC D 1	ID1 D 1	CHE D 1	ID4 D 1	CHG I 1
11	*****	*****	*****	2.2	0.4	8.7	2.7	-3.5	3.6	-4.3
	?	MLD D 1	NPL D 1	ING I 1	CH5 D 1	INL I 1	BGD D 1	CHF I 1	PHL I 1	CHG D 1
12	*****	-0.3	-3.0	4.6	-0.2	-4.8	-4.5	-4.3	-2.5	-4.2
	?	U12 I 1	?	?	?	?	SNG I 1	?	?	?
12	*****	13.0	*****	*****	*****	*****	5.7	*****	*****	*****
	OCE ?	CLN I 1	?	INH D 1	CHB I 1	INC D 1	ID2 D 1	ML2 I 1	ID5 D 1	?
13	3.6	7.4	*****	2.1	1.0	8.2	-1.6	-3.7	-4.9	*****
	?	U16 D 1	?	?	?	?	?	?	?	?
13	*****	2.1	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	AF2 D 1	ING I 1	?	INL I 1	LAO D 1	ML1 D 1	ID7 I 1	CHI D 1
14	*****	*****	3.9	8.3	*****	5.0	0.8	3.4	3.1	3.0
	?	?	?	INH D 1	CHB I 1	INC D 1	ID1 D 1	CHJ D 1	ID4 D 1	CHR I 1
15	*****	*****	*****	2.2	1.8	8.9	2.7	-2.5	4.0	-2.5

	* -160.0 *	44.0 *	50.0 *	56.0 *	62.0 *	68.0 *	74.0 *	80.0 *	86.0 *	92.0 *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* MLD D 1 *	? *	* ING I 1 *	* CH7 D 1 *	* INL I 1 *	* BGD D 1 *	* CHY I 1 *	* PHL I 1 *	* CHG D 1 *
16	* ***** *	* -0.3 *	***** *	4.7 *	-2.3 *	-3.3 *	-3.6 *	-3.7 *	-0.5 *	-3.6 *
	*	*	*	*	*	*	*	*	*	*
	* ? *	* U12 I 1 *	? *	? *	? *	? *	* SNG I 1 *	? *	? *	? *
16	* ***** *	* 13.5 *	***** *	***** *	***** *	***** *	6.1 *	***** *	***** *	***** *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* CLN I 1 *	? *	* IND D 1 *	* BRM I 1 *	* INJ D 1 *	* ID2 D 1 *	* ML2 I 1 *	* ID5 D 1 *	* CHP I 1 *
17	* ***** *	* 8.7 *	***** *	7.2 *	2.2 *	0.9 *	-2.3 *	-3.8 *	-4.8 *	1.9 *
	*	*	*	*	*	*	*	*	*	*
	* ? *	* U16 D 1 *	? *	? *	? *	? *	? *	? *	? *	? *
17	* ***** *	* 5.2 *	***** *	***** *	***** *	***** *	***** *	***** *	***** *	***** *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* ? *	* AF1 I 1 *	* INI I 1 *	* CHD D 1 *	* CBG I 1 *	* LAO D 1 *	* ML1 D 1 *	* ID7 I 1 *	* CHI D 1 *
18	* ***** *	* ***** *	11.0 *	6.2 *	-5.1 *	-4.7 *	-7.0 *	3.1 *	9.4 *	-1.8 *
	*	*	*	*	*	*	*	*	*	*
	* ? *	* ? *	? *	? *	? *	* INK D 1 *	? *	? *	? *	? *
18	* ***** *	* ***** *	***** *	***** *	***** *	-3.4 *	***** *	***** *	***** *	***** *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* ? *	* ? *	* IND D 1 *	* BRM I 1 *	* INJ D 1 *	* ID1 D 1 *	* CHK D 1 *	* ID4 D 1 *	* CHH I 1 *
19	* ***** *	* ***** *	***** *	7.2 *	-0.2 *	-0.1 *	-0.7 *	-2.9 *	3.0 *	-4.2 *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* MLD D 1 *	AF1 I 1 *	INI I 1 *	* CHD D 1 *	* CBG I 1 *	* BGD D 1 *	* CH2 I 1 *	* PHL I 1 *	* CHG D 1 *
20	* ***** *	* 5.3 *	7.8 *	6.2 *	-2.6 *	2.3 *	-5.7 *	-2.4 *	-1.3 *	-6.0 *
	*	*	*	*	*	*	*	*	*	*
	* ? *	* U15 I 1 *	? *	? *	? *	* INK D 1 *	? *	? *	? *	? *
20	* ***** *	* 10.0 *	***** *	***** *	***** *	-3.9 *	***** *	***** *	***** *	***** *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* ? *	* ? *	* IND D 1 *	* BRM I 1 *	* INJ D 1 *	* ID2 D 1 *	* CHW D 1 *	* ID5 D 1 *	* CHH I 1 *
21	* ***** *	* ***** *	***** *	7.2 *	2.2 *	-0.1 *	2.1 *	-4.4 *	0.7 *	-4.3 *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
	*	*	*	*	*	*	*	*	*	*
	* ? *	* ? *	AF1 I 1 *	INI I 1 *	* CHD D 1 *	* CBG I 1 *	* ? *	* ? *	* ID7 I 1 *	* CH1 D 1 *
22	* ***** *	* ***** *	11.2 *	6.2 *	4.1 *	-1.3 *	***** *	***** *	8.3 *	2.7 *
	*	*	*	*	*	*	*	*	*	*
	* ? *	* ? *	* ? *	* ? *	* ? *	* INK D 1 *	* ? *	* ? *	* ? *	* ? *
22	* ***** *	* ***** *	***** *	***** *	***** *	-3.0 *	***** *	***** *	***** *	***** *
	*	*	*	*	*	*	*	*	*	*
	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

	-160.0	44.0	50.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0
	?	?	?	IND D 1	BRM I 1	INJ D 1	ID1 D 1	CHL D 1	ID4 D 1	CHH I 1
23	*****	*****	*****	7.2	-0.2	0.9	-0.8	-1.2	3.3	-2.1
	?	MLD D 1	AF1 I 1	INI I 1	CH9 D 1	CBG I 1	?	CH8 I 1	PHL I 1	CHV D 1
24	*****	5.5	8.1	6.2	-1.7	4.0	*****	-0.9	-1.1	-0.9
	?	U15 I 1	?	?	?	INK D 1	?	?	?	?
24	*****	10.3	*****	*****	*****	-1.4	*****	*****	*****	*****
	?	U03 D 1	?	?	?	?	?	?	?	?
25	*****	4.2	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?	?
26	*****	*****	*****	*****	*****	*****	*****	7.2	*****	*****
	?	?	?	?	?	?	?	MNG I 2	?	?
27	*****	*****	*****	*****	*****	*****	*****	6.9	*****	*****
	?	?	?	?	?	?	?	U05 D 2	?	?
28	*****	*****	*****	*****	*****	*****	*****	2.7	*****	*****
	?	U03 D 1	?	?	?	?	?	?	?	?
29	*****	14.6	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	U18 D 2	?	?
30	*****	*****	*****	*****	*****	*****	*****	7.2	*****	*****
	?	?	?	?	?	?	?	MNG I 2	?	?
31	*****	*****	*****	*****	*****	*****	*****	6.9	*****	*****
	?	?	?	?	?	?	?	U05 D 2	?	?
32	*****	*****	*****	*****	*****	*****	*****	2.7	*****	*****

	-160.0	44.0	50.0	56.0	62.0	68.0	74.0	80.0	86.0	92.0
	?	U03 D 1	?	?	?	?	?	?	?	?
33	*****	14.6	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	U19 D 2	?	?
34	*****	*****	*****	*****	*****	*****	*****	12.6	*****	*****
	?	?	?	?	?	?	?	MNG I 2	?	?
35	*****	*****	*****	*****	*****	*****	*****	6.9	*****	*****
	?	?	?	?	?	?	?	U05 D 2	?	?
36	*****	*****	*****	*****	*****	*****	*****	2.7	*****	*****
	?	U03 D 1	?	?	?	?	?	MNG I 2	?	?
37	*****	0.1	*****	*****	*****	*****	*****	2.7	*****	*****
	?	?	?	?	?	?	?	U19 D 2	?	?
38	*****	*****	*****	*****	*****	*****	*****	12.2	*****	*****
	?	?	?	?	?	?	?	MNG I 2	?	?
39	*****	*****	*****	*****	*****	*****	*****	6.9	*****	*****
	?	?	?	?	?	?	?	U05 D 2	?	?
40	*****	*****	*****	*****	*****	*****	*****	2.7	*****	*****

	98.0	104.0	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	?	AU1 I 1	?	?	NRU ?	NHB D 3	?	NZL D 4	?
1	*****	7.4	*****	*****	11.8	8.7	*****	16.5	*****
	?	?	?	?	?	?	?	?	?
1	*****	*****	*****	*****	*****	*****	*****	*****	*****
	KOR I 1	AU2 D 1	U06 I 1	?	?	NCL I 3	FJI ?	CKH I 4	?
2	5.3	7.2	7.2	*****	*****	9.5	14.8	15.9	*****
	?	AU3 I 1	?	NZL ?	?	WAL D 3	?	SMO D 4	?
3	*****	6.8	*****	13.2	*****	5.5	*****	2.4	*****
	?	?	?	?	?	?	?	?	?
3	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	AU4 D 1	U20 I 1	?	?	?	?	CKN I 4	TON ?
4	*****	7.8	6.6	*****	*****	*****	*****	15.6	5.2
	?	?	?	?	?	?	?	?	?
4	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	AU5 I 1	?	?	NRU ?	NHB D 3	?	NZL D 4	?
5	*****	7.7	*****	*****	11.4	8.7	*****	9.0	*****
	?	?	?	?	?	?	?	?	?
5	*****	*****	*****	*****	*****	*****	*****	*****	*****
	KOR I 1	AU6 D 1	U06 I 1	?	?	NCL I 3	FJI ?	CKH I 4	?
6	6.0	7.8	7.3	*****	*****	9.4	14.8	15.8	*****
	?	AU1 I 1	?	NZL ?	?	WAL D 3	?	SMO D 4	?
7	*****	7.4	*****	19.1	*****	5.5	*****	2.4	*****
	?	?	?	?	?	?	?	?	?
7	*****	*****	*****	*****	*****	*****	*****	*****	*****

	98.0	104.0	110.0	128.0	134.0	140.0	152.0	158.0	170.0
8	KRE I 1 -3.4	AU2 D 1 4.3	U20 I 1 5.3	? *****	? *****	? *****	? *****	CKN I 4 15.6	TON ? 5.2
8	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****
9	ID9 D 1 6.4	AU3 I 1 6.8	J D 1 8.7	? *****	NRU ? 11.3	NHB D 3 8.7	? *****	NZL D 4 12.3	? *****
9	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****
10	KOR I 1 2.6	AU4 D 1 7.8	U06 I 1 13.0	? *****	? *****	NCL I 3 9.5	FJI ? 14.7	CKH I 4 15.9	? *****
11	ID8 D 1 6.0	AU5 I 1 2.9	J D 1 6.8	NZL ? 9.3	? *****	WAL D 3 5.7	? *****	SMO D 4 2.6	? *****
12	KRE I 1 -4.4	AU6 D 1 7.7	PNG I 1 4.9	? *****	? *****	U21 ? 5.8	? *****	CKN I 4 16.4	TON ? 5.1
12	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****
13	ID9 D 1 2.8	AU1 I 1 7.2	J D 1 10.3	? *****	NRU ? 11.4	NHB D 3 8.7	? *****	NZL D 4 16.2	? *****
13	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****	? *****
14	KOR I 1 2.7	AU2 D 1 -0.2	U06 I 1 14.1	PNG ? 3.0	? *****	NCL I 3 9.5	? *****	CKH I 4 15.9	? *****
15	ID8 D 1 8.1	AU3 I 1 6.7	J D 1 10.3	? *****	? *****	WAL D 3 5.9	? *****	SMO D 4 2.7	? *****

	98.0	104.0	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	KRE I 1	AU4 D 1	PNG I 1	?	?	U21 ?	?	CKN I 4	TON ?
16	-4.1	7.8	4.3	*****	*****	6.3	*****	16.5	5.1
	?	?	?	?	?	?	?	?	?
16	*****	*****	*****	*****	*****	*****	*****	*****	*****
	ID9 D 1	AU5 I 1	J D 1	?	?	?	?	?	?
17	-0.7	0.2	10.3	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?
17	*****	*****	*****	*****	*****	*****	*****	*****	*****
	KOK I 1	AU6 D 1	U06 I 1	PNG ?	?	?	?	TKL ?	?
18	2.0	7.7	12.5	11.3	*****	*****	*****	18.8	*****
	?	?	?	?	?	?	?	?	?
18	*****	*****	*****	*****	*****	*****	*****	*****	*****
	ID8 D 1	AU1 I 1	J D 1	?	?	?	?	?	?
19	1.9	7.2	2.8	*****	*****	*****	*****	*****	*****
	KRE I 1	AU2 D 1	PNG I 1	?	?	U07 ?	?	NIU ?	?
20	-5.5	-0.3	1.0	*****	*****	-4.0	*****	20.7	*****
	?	?	?	?	?	?	?	?	?
20	*****	*****	*****	*****	*****	*****	*****	*****	*****
	ID9 D 1	AU3 I 1	J D 1	?	?	?	?	?	?
21	5.4	6.8	2.8	*****	*****	*****	*****	*****	*****
	KOR I 1	AU4 D 1	U06 I 1	PNG ?	?	U08 ?	?	TKL ?	?
22	3.5	7.8	6.0	10.9	*****	5.5	*****	18.6	*****
	?	?	?	?	?	?	?	?	?
22	*****	*****	*****	*****	*****	*****	*****	*****	*****

	98.0	104.0	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	ID8 D 1	AU5 I 1	J D 1	?	?	?	?	?	?
23	5.9	2.9	2.7	*****	*****	*****	*****	*****	*****
	KRE I 1	AU6 D 1	PNG I 1	?	?	U07 ?	?	NIU ?	?
24	0.0	7.7	4.9	*****	*****	-2.3	*****	21.5	*****
	?	?	?	?	?	?	?	?	?
24	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?
25	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U08 ?	?	?	?
26	*****	*****	*****	*****	*****	19.8	*****	*****	*****
	?	?	?	?	?	?	?	?	?
27	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U07 ?	?	?	?
28	*****	*****	*****	*****	*****	2.9	*****	*****	*****
	?	?	?	?	?	?	?	?	?
29	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U08 ?	?	?	?
30	*****	*****	*****	*****	*****	19.8	*****	*****	*****
	?	?	?	?	?	?	?	?	?
31	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U07 ?	?	?	?
32	*****	*****	*****	*****	*****	2.9	*****	*****	*****

	98.0	104.0	110.0	128.0	134.0	140.0	152.0	158.0	170.0
	?	?	?	?	?	?	?	?	?
33	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U08 ?	?	?	?
34	*****	*****	*****	*****	*****	12.2	*****	*****	*****
	?	?	?	?	?	?	?	?	?
35	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U07 ?	?	?	?
36	*****	*****	*****	*****	*****	2.9	*****	*****	*****
	?	?	?	?	?	?	?	?	?
37	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?
38	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	?	?	?	?
39	*****	*****	*****	*****	*****	*****	*****	*****	*****
	?	?	?	?	?	U07 ?	?	?	?
40	*****	*****	*****	*****	*****	2.9	*****	*****	*****

5A2

APPENDICE 3 - Annexe 3

(Partie Est)

ANALYSE DES BROUILLAGES DES PAYS A MARGE NEGATIVE

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)							
CLN	5	-2.8	U03	30.5	INE	32.2				
CLN	9	-0.7	U03	30.5						
MLD	12	-0.3	U12	39.3	ING	31.5				
MLD	16	-0.3	U12	39.3	ING	31.5				
U03	5	-2.9	CHA	30.8	INB	31.7				
NPL	4	-6.5	INF	27.7	CHC	33.3	INA	31.5	BGD	31.5
NPL	8	-6.0	INF	27.7	INA	31.5	BGD	31.5		
NPL	12	-3.0	INL	30.9	BGD	31.5				
INF	2	-1.2	AF2	37.6	CHC	35.9	INA	32.1		
INF	4	-5.2	NPL	28.3	INA	32.1				
INF	6	-1.2	AF2	37.6	CHC	35.9	INA	32.1		
INF	8	-4.7	NPL	28.3	INA	32.1	BGD	36.0		
THA	1	-6.1	CHA	30.2	VTD	26.9				
THA	3	-6.1	CHA	30.2	VTD	26.9				
THA	5	-6.1	CHA	30.2	VTD	26.9				
THA	7	-6.1	CHA	30.2	VTD	26.9				
BRM	19	-0.2	INJ	33.9	ID1	34.1				
BRM	23	-0.2	INJ	33.9	ID1	34.1				
CHA	1	-5.4	THA	30.1	INB	27.8				
CHA	3	-6.0	THA	30.1	INB	27.8	CHE	33.6		
CHA	5	-6.3	U03	32.1	THA	30.1	INB	27.8		
CHA	7	-6.0	THA	30.1	INB	27.8	CHE	33.6		
CHB	9	-0.4	U03	34.5	INH	33.0				
CHD	18	-5.1	LAO	27.1	CH1	33.9				
CHD	20	-2.6	BGD	36.9	CH2	31.3	CHG	35.2		
CHC	1	-5.6	THA	9.7						
CHC	2	-3.3	INA	30.5	CHX	33.6	U06	36.5		
CHC	3	-5.6	THA	9.7						
CHC	3	-5.6	THA	9.7						
CHC	4	-3.5	INA	30.5	CHF	32.6				
CHC	5	-5.6	THA	9.7						
CHC	5	-5.6	THA	9.7						
CHC	6	-2.0	INA	30.5	U06	36.5				
CHC	7	-5.6	THA	9.7						
CH4	7	-2.0	THA	13.5						
CH5	12	-0.2	CHF	32.9	CHG	35.7				
CH7	16	-2.3	CHY	29.8	CHG	35.6				
CH9	24	-1.7	INK	37.8	CH8	30.2				
CBG	18	-4.7	LAO	28.8	CH1	33.0				
CBG	22	-1.3	CHD	36.6	INK	37.2	CH1	32.0		
VTD	1	-2.9	THA	29.0	INB	38.1				
VTD	2	-7.3	INA	7.8						
VTD	2	-7.3	INA	7.8						
VTD	3	-3.3	THA	29.0	CHE	37.6				
VTD	4	-7.3	INA	7.8						
VTD	4	-7.3	INA	7.8						
VTD	5	-2.8	THA	29.0	INB	38.1				

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)
VTD	6	-7.3	INA 7.8
VTD	6	-7.3	INA 7.8
VTD	7	-3.2	THA 29.0 CHE 37.6
VTD	8	-7.3	INA 7.8
INB	1	-3.6	CHA 28.3 VTD 36.1
INB	3	-3.6	CHA 28.3 VTD 36.1
INB	5	-4.9	UO3 31.9 CHA 28.3 VTD 36.1
INB	7	-3.6	CHA 28.3 VTD 36.1
INJ	20	-0.1	INK 17.2 BGD 19.7
INJ	20	-0.1	INK 17.2 BGD 19.7
INA	1	-3.5	VTD 11.7
INA	2	-4.0	INF 31.2 CHC 30.0 LAO 36.9
INA	3	-3.5	VTD 11.7
INA	3	-3.5	VTD 11.7
INA	4	-7.4	NPL 31.5 INF 31.2 CHC 30.0 BGD 27.9
INA	5	-3.5	VTD 11.7
INA	5	-3.5	VTD 11.7
INA	6	-4.0	INF 31.2 CHC 30.0 LAO 36.9
INA	7	-3.5	VTD 11.7
INA	7	-3.5	VTD 11.7
INA	8	-6.3	NPL 31.5 INF 31.2 BGD 27.9
INL	12	-4.8	NPL 31.4 BGD 27.8
INL	16	-3.3	BGD 27.8
INK	18	-3.4	CHD 32.4 CBG 30.0
INK	20	-3.9	CHD 32.4 CBG 30.0 BGD 34.7
INK	22	-3.0	CHD 32.4 CBG 30.0
INK	24	-1.4	CBG 30.0
BGD	4	-6.1	NPL 32.1 CHC 34.4 INA 27.2
BGD	8	-5.6	NPL 32.1 INF 35.0 INA 27.2
BGD	12	-4.5	NPL 32.1 INL 28.0
BGD	16	-3.6	CH7 37.3 INL 28.0
BGD	20	-5.7	CHD 30.5 INK 27.0
LAO	18	-7.0	CHD 27.6 CBG 28.0 CHI 32.3
ID1	19	-0.7	BRM 32.3 ID4 35.4
ID1	23	-0.8	BRM 32.3 ID4 35.4
ID3	1	-0.5	ID6 32.6 AU1 37.4
ID3	5	-0.7	ML2 36.4 ID6 32.6
ID3	7	-0.6	ID6 32.6 AU1 37.4
ID2	9	-1.6	ML2 30.6 ID5 36.2
ID2	13	-1.6	ML2 30.6 ID5 36.2
ID2	17	-2.3	BRM 36.8 ML2 30.6 ID5 36.2
CHY	16	-3.7	CH7 31.2 CHG 30.4
CH2	20	-2.4	CHD 30.5 CHG 34.1
CH8	24	-0.9	CH9 30.5
ML2	5	-2.0	THA 38.0 VTD 32.5 ID6 33.1
ML2	9	-3.7	ID2 32.1 ID5 29.2
ML2	13	-3.7	ID2 32.1 ID5 29.2
ML2	17	-3.8	ID2 32.1 ID5 29.2
CHE	3	-4.1	CHA 33.9 VTD 34.3 CHT 29.3
CHE	7	-2.2	CHA 33.9 VTD 34.3 CHS 33.6
CHE	11	-3.5	CHB 35.5 CHQ 29.3 J 35.6

PAYS	CANAL BROUILLEUR	MARGE	PAYS BROUILLEURS (BROUILLAGE EN DB.)					
CHF	4	-0.2	CHC	33.1	INA	35.8		
CHF	8	-0.3	CH4	34.4	INA	35.8	PHL	38.6
CHF	12	-4.3	CH5	32.5	CHG	28.6		
CHJ	15	-2.5	CHR	29.8	J	36.1		
CHK	19	-2.9	CHH	28.9				
CHL	23	-1.2	CHH	31.2	J	38.5		
CHW	21	-4.4	CHH	27.3				
CHX	2	-1.8	CHC	33.1	CHU	32.0		
ID5	9	-4.8	ID2	32.4	ML2	27.6		
ID5	13	-4.9	ID2	32.4	ML2	27.6		
ID5	17	-4.8	ID2	32.4	ML2	27.6		
ID6	1	-1.0	ID3	31.3	AU1	37.0		
ID6	3	-0.2	ID3	31.3				
ID6	5	-2.0	ID3	31.3	ML2	33.1		
ID6	7	-1.1	ID3	31.3	AU1	37.0		
PHL	12	-2.5	CHF	32.3	CHG	31.0		
PHL	16	-0.5	CHG	31.0				
PHL	20	-1.3	CH2	37.0	CHG	31.0		
PHL	24	-1.1	CHV	30.2				
CHU	2	-0.0	CHX	31.5				
CHT	3	-1.9	CHE	29.9				
CHN	8	-3.5	CHF	37.2	KRE	28.4		
CHI	18	-1.8	CHD	33.7	CBG	34.2	LAO	34.5
CHR	15	-2.5	CHJ	30.4	J	34.2		
CHQ	11	-4.3	CHE	28.1	J	32.8		
CHG	12	-4.2	CHF	35.4	PHL	34.3	KRE	28.9
CHG	16	-3.6	PHL	34.3	KRE	28.9		
CHG	20	-6.0	PHL	34.3	KRE	28.9	U07	29.2
CHH	19	-4.2	CHK	28.6	J	31.9		
CHH	21	-4.3	CHW	28.4	J	31.9		
CHH	23	-2.1	CHL	32.2	J	31.9		
CHV	24	-0.9	PHL	30.5				
KRE	8	-3.4	CHN	28.1				
KRE	12	-4.4	CHG	27.1				
KRE	16	-4.1	CHG	27.1				
KRE	20	-5.5	CHG	27.1	U07	31.5		
ID9	17	-0.7	AU5	30.4				
AU2	14	-0.2	ID7	34.5	PNG	33.4		
AU2	20	-0.3	PNG	30.9				
U07	20	-4.0	U15	32.0	CHG	32.0	KRE	31.6
U07	24	-2.3	U15	32.0	KRE	31.6		

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/38-F/E/S
28 janvier 1977

Note du Secrétaire général

Les Documents N^os DT/36 et DT/37 utilisent des symboles désignant des pays (parfois certaines parties de ces pays) ou des zones géographiques. Dans quelques cas, ces symboles ne correspondent pas aux symboles utilisés par l'UIT, en particulier lorsqu'ils désignent des régions différentes d'un même pays pour lesquelles un faisceau spécial est prévu.

On trouvera ci-après une liste des équivalences entre les symboles de l'UIT et les symboles utilisés par l'ordinateur avec la méthode à deux degrés de liberté (symboles TDF). Cette liste doit permettre d'identifier plus facilement les faisceaux mentionnés dans les deux Documents N^os DT/36 et DT/37.

Note by the Secretary-General

Documents Nos. DT/36 and DT/37 use symbols which designate countries (in certain cases parts thereof) or a geographical area, but which do not correspond in some cases with ITU symbols - in particular to describe different areas within a country for which a beam is intended.

The enclosed listing presents the equivalents in the ITU and TDF symbols to assist identification of particular beams provided for in the Documents Nos. DT/36 and DT/37.

Nota del Secretario General

Los Documentos N.^os DT/36 y DT/37 utilizan símbolos que designan países (en determinados casos partes de los mismos) o una zona geográfica, pero que no corresponden en algunos casos con los símbolos UIT - en especial para definir diferentes zonas de un país a las que se destina un haz.

La lista que adjunto se acompaña indica las equivalencias entre símbolos UIT y TDF para ayudar a la identificación de los haces particulares a los que se refieren los Documentos N.^os DT/36 y DT/37.

M. MILI

Secrétaire général

ARCHIVES U.I.T. GENÈVE

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
AFG245		AF1
AFG246		AF2
AFI099		AFI
AFS021		AFS
AFS022		AFX
AFS023		AFY
AFS024		AFZ
AGL295		AGL
ALB296		ALB
ALG250		ALG
ALG251		ALH
ALG252		ALI
AND238		AND
AND261		ANE
ARS003		ARU
ARS275		ART
AUS004		AU1
AUS005		AU2
AUS006		AU3
AUS007		AU4
AUS008		AU5
AUS009		AU6
AUS010		AU11
AUS011		AU21
AUS012		AU31
AUS013		AU41
AUS014		AU51
AUS015		AU61
AUS315		AU12
AUS316		AU22
AUS317		AU32
AUS318		AU42
AUS319		AU52
AUS320		AU62
AUT016		AUU
AUT017		DAS

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
AZR134.		AZR
BDI270		BDI
BEL018		BEL
BGD220		BGD
BHR255		BHR
BLR062		BLR
BOT297		BOT
BRM298		BRM
BUL020		BUL
CAF258		CAF
CBG299		CBG
CHN154		CHA
CHN155		CHB
CHN156		CHC
CHN157		CHD
CHN158		CHE
CHN159		CHF
CHN160		CHG
CHN161		CHH
CHN162		CHI
CHN163		CHJ
CHN164		CHK
CHN165		CHL
CHN166		CHM
CHN167		CHN
CHN168		CHØ
CHN169		CHP
CHN170		CHQ
CHN171		CHR
CHN172		CHS
CHN173		CHT
CHN174		CHU
CHN175		CHV
CHN176		CHW
CHN177		CHX
CHN178		CHY

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
CHN179		CHZ
CHN180		CH1
CHN181		CH2
CHN182		CH3
CHN183		CH4
CHN184		CH5
CHN185		CH6
CHN186		CH7
CHN187		CH8
CHN188		CH9
CKH052		CKH
CKN053		CKN
CLN219		CLN
CME300		CME
CNR130		CNR
COG235		COG
COM207		COM
CPV301		ICV
CTI301		CTI
CVA083		CVA
CVA084		CVI
CVE085		CVE
CYP086		CYP
D 087		D
DAH233		DAH
DDR216		DDR
DNK089		DNK
DNK090		NDC
DNK091		IS2
E 129		E
EGY026		EGY
ETH092		ETH
F 093		F
FJI193		FJI
FNL103		FNL

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
G 027		G
GAB260		GAB
GHA108		GHA
GMB302		GMB
GNE303		GNE
GNP304		GNP
GRC105		GRC
GUI192		GUI
HNG106		HNG
HOL213		HOL
HV0107		HVØ
I 082		I
IND037		INA
IND038		INB
IND039		INC
IND040		IND
IND041		INE
IND042		INF
IND043		ING
IND044		INH
IND045		INI
IND046		INJ
IND047		INK
IND048		INL
INS028		ID1
INS029		ID2
INS030		ID3
INS031		ID4
INS032		ID5
INS033		ID6
INS034		ID7
INS035		ID8
INS036		ID9
IRL211		IRL
IRN109		IRN
IRQ256		IRQ

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
ISL049		ISl
ISR110		ISR
J 111		J
JOR224		JOR
KEN249		KEN
KOR112		KOR
KRE286		KRE
KWT113		KWT
LAO284		LAØ
LBN279		LBN
LBR244		LBR
LBY280		LBX
LBY321		LBZ
LIE253		LIE
LSO305		LSØ
LUX114		LUX
MAU242		MR1
MAU243		MR2
MCO116		MCP
MCO117		MCQ
MDG236		MDG
MLA227		ML1
MLA228		ML2
MLD306		MLD
MLI118		MW1
MLI269		MW2
MLT147		MLT
MNG248		MNG
MOZ307		MØZ
MRC209		MRC
MRC292		MRC1
MTN223		MTN
MTN288		MTØ
MTN293		MTØ1
MTN294		MTN1

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
MWI308		MWI
MYT098		MYT
NCL100		NCL
NGR115		NGR
NHB128		NHB
NIG119		NIG
NIU054		NIU
NMB025		NMB
NOR120		NØR
NPL122		NPL
NRU309		NRU
NZL055		NZL
NZL287		NZL1
OCE101		ØCE
OMA123		ØMA
OMA124		ØMB
OMA125		ØMC
OMA126		ØMD
PAK127		PA1
PAK210		PA2
PAK281		PA3
PAK282		PA4
PAK283		PA5
PAK285		PHL
PNG131		PNG
PNG271		PNG1
POL132		PØL
POR133		PØR
QAT247		QAT
REU097		REU
RHS135		RHS
ROU136		RØU
RRW310		RRW
S 138		S
SDN230		SD1

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
SDN231		SD2
SDN232		SD3
SEN222		SEN
SMØ057		SMØ
SMR311		SMR
SNG151		SNG
SØM312		SØM
SRL259		SRL
STP241		STP
SUI140		SUJ
SWZ313		SWZ
SYR229		SYR
TCD143		TCD
TCH144		TCH
TGK225		TGK
THA142		THA
TKL058		TKL
TØN215		TØN
TUN150		TUN
TUØ272		TUØ
TUR145		TUR
UAE274		UAE
UGA051		UGA
UKR063		UKR
URS059		U01
URS060		U02
URS061		U09
URS064		U10
URS065		U11
URS066		U03
URS067		U04
URS068		U13
URS069		U16
URS070		U17

Symbole UIT / ITU Symbol / Símbolo UIT	Faisceau N° / Beam No. / Número de haz	Symbole TDF / TDF Symbol / Símbolo TDF
URS071		U14
URS072		U15
URS073		U12
URS074		U05
URS075		U18
URS076		U19
URS077		U06
URS078		U20
URS079		U07
URS080		U08
URS081		U21
WAL102		WAL
YEM266		YEM
YMS267		YMS
YUG148		YUG
ZAI146		ZAI
ZAI322		ZA1
ZAI323		ZA2
ZMB314		ZMB
F 094		F
LUX214		LXE
AUTXXX		AUT
SUIXXX		SUI

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/39-E
31 January 1977
Original: English

WORKING GROUP 6D

Note by the Secretary-General

Following the discussions in Working Group 6D, enclosed are extracts from the Final Acts of four Administrative Radio Conferences of the I.T.U.

ANNEX I - Extraordinary Administrative Radio Conference Geneva, 1951

ANNEX II - Extraordinary Administrative Radio Conference for the Preparation of a Revised Allotment Plan for the Aeronautical Mobile (R) Service Geneva, 1966

ANNEX III - World Maritime Administrative Radio Conference Geneva, 1974

ANNEX IV - Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3) Geneva, 1975

M. MILI

Secretary-General

ARCHIVES U.I.T. GENÈVE

ANNEX I

EXTRAORDINARY ADMINISTRATIVE RADIO CONFERENCE, GENEVA 1951

TITLE

Agreement for the Preparation and Adoption of the New International Frequency List for the various Services in the Bands between 14 kc/s and 27,500 kc/s with a view to bringing into force the Atlantic City Table of Frequency Allocations

concluded at Geneva between the following countries : .....

PREAMBLE

History and signature clause

The undersigned delegates of the above-named countries assembled at the E.A.R.C., on the proposal of the Administrative Council of the I.T.U., with the concurrence of a majority of the Members of the Union, have, in the names of their respective countries, adopted by mutual consent, the provisions contained in this Agreement and the Annexes thereof.

ENTRY INTO FORCE

- Art. 38

Entry into force of certain provisions of the RR
The following provisions of the RR shall come into force on the dates indicated below : .....(differing dates for various subjects and Plans)

- Art. 39

The present Agreement will come into force on 1 March 1952.

APPROVAL CLAUSE

Art. 39

Members and Associate Members of the Union shall notify the Secretary General of their approval of this Agreement in accordance with paragraph .. of Article ... of the Convention.

SIGNATURE CLAUSE

In witness whereof, the Delegates of the countries Members of the Union, participants in the E.A.R.C. of Geneva (1951) have, in the names of their respective countries, signed the present Agreement .....

date

Done at Geneva, .. December 1951

FINAL PROTOCOL

At the time of signing the above-named Agreement, the undersigned delegates take note of the fact that the following reservations have been sumitted by signatories of the Agreement : ....

RESOLUTIONS

RECOMMENDATIONS

ANNEX II

EXTRAORDINARY ADMINISTRATIVE RADIO CONFERENCE FOR THE PREPARATION OF A REVISED ALLOTMENT PLAN FOR THE AERONAUTICAL MOBILE (R) SERVICE, GENEVA, 1966

TITLE	Final Acts of the Extraordinary Administrative Radio Conference... Partial Revision of the Radio Regulations, Geneva, 1959
PREAMBLE	In pursuance of Resolution No. 13 of the OARC, 1959...
History	During its 20th Session (1965), the Administrative Council adopted Resolution No. 563 by which it decided, with the prior agreement of the Members of the Union, that the second session of the EARC should be held ... Accordingly convened on the appointed date, the EARC revised, in accordance with provisions of Nos 60 and 61 of the Convention, Geneva, 1959, the relevant portions of the Radio Regulations. The revised provisions of the Radio Regulations... shall form an integral part of the Radio Regulations...
ENTRY INTO FORCE	... These provisions shall come into force on and from the first of July, 1967, except for the Allotment Plan provisions ... contained in Appendix 27 which shall come into force on and from 0001 hours G.M.T. on the tenth of April, 1970.
SIGNATURE CLAUSE	In witness whereof the delegates of the Members of the Union represented at the Conference ... have signed in the names of their respective countries this revision of the Radio Regulations, Geneva, 1959...
APPROVAL CLAUSE	Members and Associate Members of the Union shall inform the Secretary-General of their approval ...
Date	Done at Geneva, 29th April, 1966.
ANNEX 1	Partial Revision of Articles 7, 9 and 20 of the Radio Regulations and Appendix 1 thereto
ANNEX 2	Partial Revision of Appendix 26; new Appendix 27 (various sections and parts including articles of appendices)
Appendix 27	Frequency Allotment Plan for the Aeronautical Mobile (R) Service and Related Information - definitions - technical and operational principles - Allotment Plan
ADDITIONAL PROTOCOL	At the time of signing the Final Acts of the Conference, the undersigned delegates take note of the fact that the following statements have been submitted by certain signatories:...
RESOLUTIONS	
RECOMMENDATIONS	

ANNEX III

WORLD MARITIME ADMINISTRATIVE RADIO CONFERENCE, GENEVA, 1974

TITLE	FINAL ACTS OF THE WORLD MARITIME ADMINISTRATIVE RADIO CONFERENCE, Geneva, 1974 Partial Revision of the Radio Regulations
PREAMBLE	
History	In its Recommendation No. Mar 6, the W.A.R.C. to deal with Matters Relating to the Maritime Mobile Service held in Geneva in 1967, recommended that a W.A.R.C. be convened to estblish .... At its 25 th Session (1970), the Administrative Council, after consulting the Members of the Union, decided, in its Resolution No. 678, that the Conference should be held at the beginning of 1974 and that .... At its 27th Session (1972), the Administrative Council, ... adopted Resolution No, 704 containing the agenda of the Conference.... The W.M.A.R.C. accordingly convened on the appointed date, considered and revised, in conformity with its agenda, the relevant parts of the RR and of the ARR.
Entry into force	The revised provisions ..... shall come into force on 1 January 1976 ..... (for particular provisions separate dates of entry into force were provided)
Approval clause	Members of the Union shall inform the Secretary-General of their approval of the revision of the RR...
Signature clause	In witness whereof the delegates of the Members of the Union represented at the W.Mar.A.R.C., Geneva, 1974, have signed in the names of their respective countries .....
Date	Done at Geneva, 8 June 1974
ANNEXES 1-56	Partial Revision of the Radio Regulations
ANNEXES AR 1-15	Partial Revision of the Additional Radio Regulations
FINAL PROTOCOL	At the time of signing the Final Acts of the W.M.A.R.C., Geneva, 1974, the undersigned delegates take note of the following statements made by signatory delegations ....
RESOLUTIONS	
RECOMMENDATIONS	

ANNEX IV

REGIONAL ADMINISTRATIVE LF/MF BROADCASTING CONFERENCE (REGIONS 1 AND 3)
GENEVA, 1975

TITLE	Regional Agreement concerning the Use by the Broadcasting Service of Frequencies in the MF Bands in Regions 1 and 3 and in the LF Bands in Region 1
PREAMBLE	..... the delegates of the following Members of the ITU, meeting in Geneva for a regional administrative conference convened under the provisions of the International Telecommunication Convention (Malaga-Torremolinos, 1973), have adopted, subject to the approval of their respective competent authorities, the following provisions ..... some general provisions : With the object of facilitating relations, mutual understanding.... with a view to improving the use of the frequency bands allocated to broadcasting service to ensure satisfactory reception of broadcasting service for all countries; recognizing that all countries large and small have equal rights and that the needs of all countries .... shall be fulfilled as far as possible in the implementation of this Agreement;...
DEFINITIONS	Examples: Contracting Member; Administration; Regions 1 and 2
APPROVAL OF THE AGREEMENT (Art. 8)	Members shall notify their approval of this Agreement ....
ENTRY INTO FORCE (Art. 13)	The Agreement shall enter into force on 23 November 1978 at 0001 hours GMT.
DURATION OF THE AGREEMENT (Art. 14)	The Agreement and the annexed Plan have been established with a view to meeting the requirements of the broadcasting services in the bands concerned for a period of eleven years from the date of entry into force of the Agreement. The Agreement shall remain in force until it is revised by a competent conference of the Members of the Union in Regions 1 and 3.
SIGNATURE CLAUSE	In witness whereof, the Delegates of the Members of the Union mentioned above have, on behalf of their respective competent authorities, signed this Agreement .....
DATE	Done at Geneva, 22 November 1975.

ANNEX 1	Plan
ANNEX 2	Technical Data used in the Preparation of the Plan and to be used in the Application of the Agreement
FINAL PROTOCOL	At the time of signing the ..., the undersigned delegates take note of the following statements forming part of the Final Acts of the ... Conference.
ADDITIONAL PROTOCOL I	Relating to the Abrogation of the European Broadcasting Convention (Copenhagen, 1948) and the annexed Copenhagen Plan. Signed separately by Members concerned
ADDITIONAL PROTOCOL II	Abrogating the Regional Agreement Concerning the Use by the Broadcasting Service of Frequencies in the MF Band in the African Broadcasting Area (Geneva, 1966), and the Plan annexed thereto. Signed separately by Members concerned
ADDITIONAL PROTOCOL III	Relating to the Use of the Frequency 522 kHz by the Broadcasting Service in Austria. Signed separately by Members concerned
RESOLUTIONS	
RECOMMENDATIONS	

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/40-E
31 January 1977
Original : English

WORKING GROUP 6D

Working Group 6D

First draft texts

Please find attached the first draft texts prepared by the Ad Hoc Groups of Working Group 6D.

H.K. DE ZWART
Chairman, Working Group 6D

Annexes : 9

ARCHIVES U.I.T. GENÈVE

ANNEX 1

Ad Hoc Group 6D1

Draft

FINAL ACTS OF THE WORLD BROADCASTING-SATELLITE ADMINISTRATIVE RADIO CONFERENCE. GENEVA 1977

Preamble

The World Broadcasting-Satellite Administrative Radio Conference, having been convened at Geneva on 10 January 1977 on a proposal of the Administrative Council under Article 54 of the International Telecommunication Convention, in accordance with Resolution No. 27 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973) and Resolution No. Spa2 - 2 of the World Administrative Radio Conference for Space Telecommunications (Geneva 1971), and bearing in mind the importance of making the best possible use of the geostationary-satellite orbit and of the bands allocated to the Broadcasting-Satellite Service at 11.7-12.5 GHz (11.7-12.2 GHz in Regions 2 and 3) and the need to enable other services with allocations in the band to use the band without mutual interference and the need to provide for all countries bearing in mind that all countries large and small have equal rights, and being charged by the Administrative Council to establish the sharing criteria for these bands between the Broadcasting-Satellite Service and the other services concerned :

- to plan for the Broadcasting-Satellite Services in the bands;
- to establish procedures to govern the use of these bands;
- and to consider the work of the Group of Experts on the possible re-arrangement of the Radio Regulations.

The delegates of the following members of the International Telecommunication Union have adopted, subject to the approval of their respective competent authorities, the following provisions :

Republic of Afghanistan etc.

A N N E X 2

Ad Hoc Group 6D2

Draft

/¯ GENERAL DEFINITIONS

For the purposes of this Agreement the following terms shall have the meanings defined below :

Union : The International Telecommunication Union;

Secretary-General : The Secretary-General of the Union ;

WARC : World Administrative Radio Conference of the Members of the Union;

Conference : The World Broadcasting Satellite Administrative Conference, Geneva 1977;

IFRB : The International Frequency Registration Board;

CCIR : The International Radio Consultative Committee;

Convention : The International Telecommunication Convention, Malaga-Torremolinos 1973;

Radio Regulations : The Radio Regulations annexed to the Convention;

Regions 1, 2 and 3 : The geographical areas defined in Nos. 126 to 132 of the Radio Regulations, Geneva, 1959;

Master Register : The Master International Frequency Register;

Agreement : The whole of this Agreement including its annexes;

Plan : The Plan and its appendices forming Annex (...) to this Agreement;

Contracting Member : Any Member of the Union which has approved or acceded to the Agreement;

Administration : Any governmental department or service responsible for discharging the obligations undertaken in the Convention and the Radio Regulations. /

ANNEX 3

Ad Hoc Group 6D3

Draft

Article ...

FREQUENCY BANDS

The provisions of these /Final Acts/ apply to the frequency bands between 11.7 and 12.5 GHz in Region 1 and between 11.7 and 12.2 GHz in Regions 2 and 3 /to govern the use of the Broadcasting-Satellite Service/.

Article ...

EXECUTION OF THE /FINAL ACTS/

1. The /Members of the Union/ shall adopt for their broadcasting-satellite space stations operating in the frequency bands referred to in the /Final Acts/ the characteristics specified in the Plan/s/.

2. The /Members of the Union/ shall not change the characteristics specified in the Plan, or establish new stations, except under the conditions provided for in Article(s) ..... of the present /Final Acts./

3. /The Members of the Union/ shall endeavour to agree on the action required to reduce harmful interference caused by the application of these /Final Acts./ /

ANNEX 4

Ad Hoc Group 6D4

Approval of the [Final Acts]

Members shall notify their approval of these [Final Acts], as promptly as possible, to the Secretary-General, who shall at once inform the other Members of the Union. The act of approval shall constitute the agreement of Members to conform with the decisions jointly decided upon at the World Broadcasting-Satellite Administrative Radio Conference, Geneva 1977 and these [Final Acts] will be regarded as an agreement with the associated plan(s) in accordance with resolves 1 of Resolution No. Spa2 - 2 of the World Administrative Radio Conference for Space Telecommuhications (Geneva 1971) which requires the stations in the Broadcasting-Satellite Service to be established and operated in accordance with such agreements and associated plans.

Accession to the [Final Acts]

Any Member of the Union which has not signed these [Final Acts] may notify its approval to the Secretary-General at any time and will thereby be deemed to have become party to the decisions of this Conference and to be bound by these provisions. The Secretary-General shall at once inform the other Members of the Union of any such accession.

ANNEX 5

Ad Hoc Group 6D5

Draft

[Article [...]]

[Entry into force [of the Final Acts] [of the Agreement]]

[The present Agreement shall enter] [These present Final Acts shall enter] into force on [day] [month] [year] at [hour] GMT.

[Article [...]]

[Period of validity] [duration] of [the Agreement] [the Final Acts]

1. [The Agreement] [the Final Acts] [and the Plan annexed thereto] have been prepared in order to meet the requirements of the Broadcasting-Satellite [Services / Service] [in the bands concerned] [in the bands 11.7 - 12.5 GHz for Region 1 and 11.7 - 12.2 GHz for Regions 2 and 3] for a period of [...] years from the date of [the entry into force] [the signature] [of the Final Acts] [of the Agreement].

2. [The Final Acts shall remain] [the Agreement shall remain] in force until [their] [its] revision by a competent world administrative conference convened in accordance with [the relevant provisions of the Convention [in force]] [Article 54 of the Convention (Malaga-Torremolinos, 1973)].

Note : The articles and their headings have been placed in square brackets to allow for the possibility that the provisions they contain may be included in the Preamble to the Final Acts.

ANNEX 6

Ad Hoc Group 6D6

Draft

RESOLUTION No. ...

RELATING TO THE UPDATING OF THE MASTER INTERNATIONAL FREQUENCY REGISTER ON THE DATE OF ENTRY INTO FORCE OF THE FINAL ACTS

The World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in the 12 GHz band, Geneva, 1977

noting

a) that the Final Acts of this Conference will enter into force before the entry into force of the revised Radio Regulations of the WARC 1979 and up to this time the Radio Regulations Nos. 405BA, 405BC and Resolution Nos. Spa2 - 2 and Spa2 - 3 are still valid;

b) that according to No. 405BA in the band 11.7 - 12.2 GHz in Region 3 and in the band 11.7 - 12.5 GHz in Region 1 existing and future Fixed, Mobile and Broadcasting Services shall not cause harmful interference to broadcasting-satellite stations operating with the decisions of this Conference;

c) that in accordance with No. 405BC the use of the band 11.7 - 12.2 GHz in Region 2 by the Broadcasting-Satellite and Fixed-Satellite Services is limited to domestic systems and is subject to previous agreement between the administrations concerned and those having services operating in accordance with the Table;

d) that the subsequent coordination procedure (Resolution No. Spa2 - 3) shall be applied only until Plans pursuant to Resolution No. Spa2 - 2 enter into force;

considering

a) that under the conditions mentioned before the existing or planned services outside the Broadcasting-Satellite Service have to protect the broadcasting-satellite stations operating in accordance with the Plan worked out by this Conference;

b) that it is necessary to take all the measures to reach this protection before the date of entry into force of the Final Acts of this Conference or at least before the date of bringing into use the broadcasting-satellite stations concerned;

resolves

1. that all the administrations having or intending frequency assignments in the bands concerned by the Broadcasting-Satellite Plan shall examine as soon as possible, whether or not these assignments will concern the broadcasting-satellite stations existing in the Plan (if necessary with the assistance of the IFRB);

2. that, if it is found that broadcasting-satellite stations could be interfered with, the administrations shall inform the IFRB as to measures they intend to take to ensure the protection of the broadcasting-satellite stations concerned before the date of entry into force of the Final Acts;

3. that administrations concerned may continue to use frequency assignments not in conformity with the Broadcasting-Satellite Plan provided agreement is reached with the administrations whose broadcasting-satellite stations are affected;

4. that the administrations asking for agreement shall inform the IFRB of this agreement reached;

5. that, upon receipt of such information the IFRB shall insert a symbol in the Remarks column of the Master Register indicating the duration of the agreement which shall also be published by the IFRB in a special section of its Weekly Circular;

invites the IFRB to assist administrations in implementing the provisions of this resolution.

ANNEX 7

Ad Hoc Group 6D7/6D8

Draft

RESOLUTION No. ...

RELATING TO THE [ANNEXING] TO THE RADIO REGULATIONS
OF THE [FINAL ACTS] OF THE 1977 BROADCASTING SATELLITE CONFERENCE

The World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in the 12 GHz band, Geneva, 1977,

noting

a) that the World Administrative Radio Conference for Space Telecommunications, 1971, adopted Resolution No. Spa2 - 2 envisaging that stations in the Broadcasting-Satellite Service shall be established and operated in accordance with agreements and associated plans adopted by World or Regional Administrative Conferences;

b) that the present Conference has adopted such agreements and associated plans;

considering

a) the wish expressed by delegations at the present Conference to [annex] these agreements and associated plans to the Radio Regulations;

b) that the present Conference is not competent to amend the Radio Regulations;

[resolves]

1. that the general World Administrative Radio Conference, 1979, be requested [to annex] to the Radio Regulations the Final Acts of the present

Conference in the form and to the extent it deems most appropriate without thereby affecting their content or integrity;

2. that the Administrative Council be requested to include in the agenda of the World Administrative Radio Conference 1979 the question referred to under resolves 1.

ANNEX 8

Ad Hoc Group 6D7

DRAFT RECOMMENDATION .....

RELATING TO THE CONVENING OF A CONFERENCE COMPETENT TO REVISE THE PLAN AND ASSOCIATED PROVISIONS CONCERNING THE BROADCASTING-SATELLITE SERVICE IN THE BAND 11.7-12.2 GHz (12.5 GHz IN REGION 1)

The World Administrative Broadcasting-Satellite Conference, Geneva, 1977,

considering

a) the rapid development of broadcasting-satellite techniques;

b) that all Members of the Union have an interest in the rational use of this frequency band;

c) that the avoidance of harmful interference between the services sharing this band can best be secured by a worldwide plan for the Broadcasting-Satellite Service;

d) that the present Conference only has been able to provide a plan for Regions 1 and 3;

recommends to the Administrative Council

to arrange for the convening of a conference competent to revise the Plan in , unless it be necessary to convene such a conference earlier according to the provisions of the Convention;

recommends

1. that the Plan should only be revised by a competent conference;

2. the Administrative Council to arrange for the convening of such a Conference in , unless it be necessary to convene such a conference earlier according to the provisions of the Convention.

ANNEX 9

Ad Hoc Group 6D8

DRAFT RESOLUTION

RELATING TO THE PERIOD BETWEEN THE ENTRY INTO FORCE OF THE FINAL ACTS OF THE PRESENT CONFERENCE AND THE DATE FOR THE ANNEXING OF SAID FINAL ACTS TO THE RADIO REGULATIONS

The World Administrative Broadcasting-Satellite Conference, Geneva, 1977,

considering

a) that its Final Acts will come into force on . . . ;

b) that it in its Resolution No. has requested the 1979 WARC to annex to the Radio Regulations the Final Acts from the present Conference;

c) that there will be an interim period between a) and b) above;

resolves

1. that during this interim period, as well as after the date when they have been annexed to the Radio Regulations, the Final Acts shall retain their integrity as a legal instrument and shall be binding on all Members.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/41-E
1 February 1977
Original : French

PLENARY MEETING

DRAFT

FINAL REPORT OF THE BUDGET CONTROL COMMITTEE TO THE PLENARY MEETING

The Budget Control Committee held three meetings during the Conference and considered the various points included in its terms of reference.

According to Chapter XI, Article 77, Rule 5, Nos. 442 and 445 of the Convention, the terms of reference of Committee 3 are :

a) to determine the organization and the facilities available to delegates, and

b) to examine and approve the accounts for expenditure incurred throughout the duration of the Conference.

1. Determination of the organization and the facilities available to delegates

Since no delegation had made any criticisms in that connection, Committee 3 noted that the organization and the facilities made available to delegates were fully satisfactory.

2. Conference budget

Committee 3 took note of the Conference budget as fixed by the Administrative Council of the Union, namely :

a) Preparatory work, included in the budget for 1976 : 494,000 Swiss francs, increased to 531,400 Swiss francs to allow for the salary adjustments introduced pursuant to Administrative Council Resolution No. 647. Committee 3 notes with satisfaction that the Union accounts show for this item a total expenditure of 368,231 Swiss francs, resulting in savings of 163,169 Swiss francs compared with the revised budget - savings which have been achieved owing to the excellent work of the General Secretariat.

b) Work of the Conference itself, included in the budget for 1977 : 1,594,000 Swiss francs.

ARCHIVES U.I.T. GENEVE

3. Situation of Conference expenditure in 1977

In accordance with Nos. 442 to 445 of the Convention, the Budget Control Committee presents to the Plenary Meeting a report showing, as accurately as possible, the estimated expenditure of the Conference.

A statement will accordingly be found in the annex showing the budget allocated by the Administrative Council with the proposed breakdown into the various chapters and items, the credit transfers and the actual expenditure incurred up to .....1977. This statement is supplemented by an indication of the commitments to expenditure up to that date and estimates of foreseeable expenditure until the close of the Conference.

It can be seen from this statement that total expenditure is estimated at .....Swiss francs, or .....Swiss francs less than the budget.

It should be noted that, under Article 15 of the Financial Regulations of the Union, the Budget Control Committee has authorized a credit transfer of 110,000 Swiss francs from Chapter II to Chapter III of the budget in order to finance the publication of an up to date edition of the Report prepared for the 1979 World Administrative Radio Conference by the Group of Experts on the possible Re-arrangement of the Radio Regulations and the Additional Radio Regulations.

4. Final Acts of the Conference

The Budget Control Committee examined more particularly the financial problems which might arise from the accumulation of the documents comprising the Final Acts of the Conference at the end of the meeting. In view of the considerable size of these Acts (at present estimated at more than 250 pages) and the short time available to reproduce them in time for signature by delegations on the evening of Friday, 11 February 1977, the question arises of how many copies can be printed without incurring excessive overtime costs and without having recourse to outside printers which would entail a substantial increase of expenditure.

The Budget Control Committee suggests to the Plenary Meeting that a limited number of copies of the Final Acts should be issued to delegations at the close of the Conference on the understanding that additional copies will be subsequently sent to delegations which requested them.

5. Contributions of recognized private operating agencies and non-exempted international organizations

Under Article 16 of the Financial Regulations of the ITU, the report of the Budget Control Committee to the Plenary Meeting must include a list of the recognized private operating agencies and international organizations which are required to contribute to defraying the expenses of the Conference. To this list must be added a list of the international organizations which have been exempted from payment by virtue of No. 548 of the Convention.

The list in question is given in Annex 2 to this document.

*
* *

In accordance with No. 445 of the Convention, this report, together with the observations of the Plenary Meeting, will be transmitted to the Secretary-General for submission to the Administrative Council at its next annual session.

*
* *

The Plenary Meeting is requested to approve this report.

V.A.D. RAYALU
Chairman

Annex : 2

A N N E X 2

PARTICIPATION OF INTERNATIONAL ORGANIZATIONS AND RECOGNIZED PRIVATE OPERATING AGENCIES IN THE WORK OF THE CONFERENCE

		Class of contribution
1.	International organizations	
a)	International organizations exempted from contributing under Resolution No. 574 of the ITU Administrative Council	
	Inter-Union Commission on Allocation of Frequencies for Radio Astronomy and Space Science (IUCAF)	-
	International Radio and Television Organization (OIRT)	-
	International Council of Scientific Unions (ICSU)	-
	Asian Broadcasting Union (ABU)	-
	Arab States Broadcasting Union (ASBU)	-
	Union of National Radio and Television Organizations of Africa (URTNA)	-
	European Broadcasting Union (EBU)	-
	International Amateur Radio Union (IARU)	-
b)	Other international organizations	
	European Space Agency (ESA)	½ unit
	International Telecommunications Satellite Consortium (INTELSAT)	½ unit
	International Space Telecommunications Organization (INTERSPUTNIK)	*)
2.	Recognized private operating agencies	
	None.	

*) At 1 February 1977, the Secretary-General had not yet been informed of the class of contribution selected.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/42-E
31 January 1977
Original : English

Sub-Group 6B1

PRELIMINARY PROCEDURES, NOTIFICATION AND REGISTRATION FOR THE FIXED-SATELLITE SERVICE IN THE BAND 11.7-12.2 GHz IN CASES WHERE BROADCASTING-SATELLITE STATIONS ARE INVOLVED

The Drafting Group has prepared the attached text for consideration by the Sub-Group. It may be noted that :

1. The draft is based largely on the procedures of Article 9A of the Radio Regulations.

2. The use of Appendix 29 to evaluate the degree of interference is replaced with a power flux-density criterion. The assistance of Committee 4 will be required in establishing this criterion.

3. It appears necessary to include appendices similar to Appendices 1A and 1B of the Radio Regulations. These are yet to be prepared. Apparently some additional information will be required, as compared to Appendix 1B, to facilitate its use by administrations concerned with broadcasting-satellite systems.

4. Consideration of the necessary material on Examination and Recording has yet to be undertaken.

H.E. WEPPLER
Chairman, Sub-Group 6B1

Annex : 1

ARCHIVES U.I.T. GENÈVE

A N N E X

ARTICLE /_ _/

Preliminary procedures, notification and recording in the Master International Frequency Register of Frequency Assignments to fixed-satellite stations in the frequency band 11.7 - 12.2 GHz (in Region 2) in the case where broadcasting-satellite stations are involved[1)]

Section I. Procedure for the Advance Publication of Information on Planned Satellite Systems

1.1 ~~639AA § 1. (1)~~ ~~Spa2~~ An administration (or one acting on behalf of a group of named administrations) which intends to establish a satellite system shall, prior to the ~~co-ordination~~ procedure in accordance with ~~No. 639AJ~~ where applicable, send to the International Frequency Registration Board not earlier than five years before the date of bringing into service each satellite network of the planned system, the information listed in Appendix ~~1B~~. /_1_/ /_*_/

Fixed- fixed- paragraph 2.1

1.2 ~~639AB (2)~~ ~~Spa2~~ Any amendments to the information sent concerning a planned satellite system in accordance with ~~No. 639AA~~ shall also be sent to the Board as soon as they become available.

paragraph 1.1

1.3 ~~639AC (3)~~ ~~Spa2~~ The Board shall publish the information sent under ~~Nos. 639AA and 639AB~~ in a special section of its weekly circular and shall also, when the weekly circular contains such information, so advise all administrations by circular telegram.

paragraphs 1.1 and 1.2

---

1) These provisions do not replace the procedures prescribed in Article 9A of the Radio Regulations in cases where stations other than those of the Broadcasting-Satellite Service as contained in the /_Plan_/ are involved.

/_* Appendix /_1_/ will be similar to Appendix 1B to the Radio Regulations at this time./

1.4 ~~639AD~~ ~~(4)~~ If, after studying the information published under ~~Spa2~~ ~~No. 639AC~~, any administration is of the opinion that interference, which may be unacceptable, may be caused to its ~~existing or planned space radiocommunication services,~~ it shall within ninety days after the date of the weekly circular publishing the information listed in Appendix ~~1B~~, send its comments to the administration concerned. A copy of these comments shall also be sent to the Board. If no such comments are received from an administration within the period mentioned above, it may be assumed that that administration has no basic objections to the planned satellite network(s) of that system on which details have been published.

paragraph 1.3,

assignments contained within the Broadcasting-Satellite Plan

fixed-

1.5 ~~639AE~~ ~~(5)~~ An administration receiving comments sent in accordance ~~Spa2~~ ~~with No. 639AD~~ shall endeavour to resolve any difficulties that may arise.

with paragraph 1.4

~~639AF~~ ~~(6) In case of difficulties arising when any planned satellite~~ ~~Spa2~~ ~~network of a system is intended to use the geostationary satellite orbit~~:

~~a) the administration responsible for the planned system shall first explore all possible means of meeting its requirements, taking into account the characteristics of the geostationary satellite networks of other systems, and~~ without considering the possibility of adjustment to systems of other administrations. If no such means can be found, the administration concerned is then free to apply to other administrations concerned to solve these difficulties,

provided that any modification which may result to the Plan are in accordance with Article modification to the Plan

1.6 ~~639AG~~ ~~(7)~~ In their attempts to resolve the difficulties mentioned above ~~Spa2~~ administrations may seek the assistance of the Board.

paragraphs 1.5 and 1.6

1.7 ~~639AH~~ ~~(8)~~ In complying with the provisions of ~~Nos. 639AE to 639AG~~, ~~Spa2~~ an administration responsible for a planned satellite system shall, if necessary, defer its commencement of the ~~co-ordination~~ procedure or where this is not applicable, the sending of its notices to the Board, until one hundred and fifty days after the date of the weekly circular containing the information listed in Appendix ~~1B~~ on the relevant satellite network. However, in respect of those administrations with whom difficulties have been resolved or who have responded favourably, the ~~co-ordination~~ procedure, where applicable, may be commenced prior to the expiry of the one hundred and fifty days mentioned above.

fixed-

of paragraph 2.1,

1

1.8 ~~639AI~~ ~~Spa2~~ ~~(9)~~ An administration on behalf of which details of planned fixed-satellite networks in its system have been published, in accordance with the provisions of ~~Nos. 639AA to 639AC~~, paragraphs 1.1 to 1.3, shall periodically inform the Board whether or not comments have been received and of the progress made, with other administrations, in resolving any difficulties. The Board shall publish this information in a special section of its weekly circular and shall also, when the weekly circular contains such information, so inform all administrations by circular telegram.

Section II. Co-ordination Procedures to be applied in appropriate Cases

2.1 ~~639AJ~~ ~~Spa2~~ ~~§ 2. (1)~~ Before an administration notifies to the Board or brings into use any frequency assignment to a space station ~~on a geostationary satellite or to an earth station that is to communicate with a space station on a geostationary satellite, it shall effect co-ordination of the assignment with any other administration whose assignment in the same band for a space station on a geostationary satellite or for an earth station that communicates with a space station on a geostationary satellite is recorded in the Master Register, or has been co-ordinated or is being co-ordinated under the provisions of this paragraph~~. For this purpose, the administration ~~requesting co-ordination~~ new or modified seeking agreement shall send to any other such administration the information listed in Appendix ~~1A~~ /2/ /*/.

~~639AK~~ ~~Spa2~~ ~~(2) No co-ordination under No. 639AJ is required:~~

~~a) when the use of a new frequency assignment will cause, to any service of another administration, an increase in the noise temperature of any space station receiver~~

/in the Fixed-Satellite Service, it shall seek the agreement of any other administration having an assignment to a broadcasting-satellite station appearing in the /Plan/, if

- any frequency to be emitted by the space station in the Fixed-Satellite Service falls within the occupied bandwidth of a broadcasting-satellite assignment, and

- the power flux-density which would be produced by the proposed fixed-satellite assignment exceeds the value specified in Appendix /3/.

/* Appendix /2/ will be similar to Appendix 1A to the Radio Regulations at this time./

~~or earth station receiver, or an increase in the equivalent satellite link noise temperature, as appropriate, not exceeding the predetermined increase of noise temperature calculated in accordance with the method given in Appendix 29; or~~

2.2 No additional agreement is necessary

~~b)~~ when an administration proposes to change the characteristics of an existing assignment in such a way as will, in respect of ~~any~~ ~~service~~ of another administration, meet the requirements of ~~sub-paragraph a)~~ above, or, where this assignment has previously been ~~coordinated~~, will ~~cause an increase in noise temperature not exceeding the value agreed during co-ordination~~. not cause any interference potential over that previously agreed.

the Broadcasting-Satellite Service
paragraph 2.1
the subject of agreement, and

seeking agreement under paragraph 2.1

2.3 ~~639AL~~ ~~(3)~~ An administration ~~initiating the co-ordination procedure~~ ~~Spa2~~ ~~referred to in No. 639AJ~~ shall at the same time send to the Board a copy of the request for ~~co-ordination,~~ with the information listed in Appendix ~~1A~~ and the name(s) of the administration(s) with which ~~co-ordination~~ is sought. The Board shall publish this information in a special section of its weekly circular, together with a reference to the weekly circular in which details of the satellite system were published in accordance with Section I of this Article. When the weekly circular contains such information, the Board shall so inform all administrations by circular telegram.

agreement
/ 2 /
agreement

2.4 ~~639AM~~ ~~(4)~~ An administration believing that it should have been ~~Spa2~~ included in the ~~co-ordination~~ procedure under ~~No. 639AJ~~ shall have the right to request that it be brought into the ~~co-ordination~~ procedure.

paragraph 2.1

2.5 ~~639AO~~ ~~(2)~~ An administration with which ~~co-ordination~~ is sought ~~Spa2~~ under ~~No. 639AJ~~ shall acknowledge receipt of the co-ordination data immediately by telegram. If no acknowledgement is received within thirty days after the date of the weekly circular publishing the information under ~~No. 639AL~~, the administration seeking co-ordination shall dispatch a telegram requesting acknowledgement, to which the receiving administration shall reply within a further period of thirty days. Upon receipt of the ~~co-ordination~~ data, an administration shall, having regard to the proposed date of bringing into use of the assignment for which ~~co-ordination~~ was requested, promptly examine the matter with regard to interference [1] which would be caused to the service rendered by its stations in respect of which ~~co-ordination~~ is sought under ~~No. 639AJ~~; and shall, within ninety days from the date of the relevant weekly circular, notify

agreement
paragraph 2.1
agreement
paragraph 2.3,
agreement
agreement
agreement
paragraph 3.1,

~~639AO.1~~ ~~Spa2~~ [1] The criteria to be employed in evaluating interference levels shall be based upon relevant C.C.I.R. Recommendations ~~or, in the absence of such Recommendations,~~ shall be agreed between the administrations concerned.

upon the technical information contained in / the Final Acts / or

and

~~the administration requesting co-ordination~~ of its agreement. If the administration with which ~~co-ordination~~ is sought does not agree, it shall, within the same period, send to the administration seeking ~~co-ordination~~ the technical details upon which its disagreement is based, and make such suggestions as it may be able to offer with a view to a satisfactory solution of the problem. A copy of these comments shall also be sent to the Board.

2.6 ~~639AS § 4. (1)~~ ~~Spa2~~ An administration seeking co-ordination may request the Board to endeavour to effect co-ordination in those cases where:

a) an administration with which co-ordination is sought under ~~No. 639AJ~~ fails to acknowledge receipt, under ~~No. 639AQ~~, within sixty days after the date of the weekly circular publishing the information relating to the request for co-ordination;

b) ~~*c)*~~ an administration has acknowledged receipt under ~~No. 639AQ~~, but fails to give a decision within ninety days from the date of the relevant weekly circular;

c) ~~*e)*~~ there is disagreement between the administration seeking co-ordination and an administration with which co-ordination is sought as to the acceptable level of interference;

d) ~~*f)*~~ co-ordination between administrations is not possible for any other reason.

In so doing, it shall furnish the Board with the necessary information to enable it to endeavour to effect such co-ordination.

2.7 ~~639AT~~ ~~(2)~~ ~~Spa2~~ Either the administration seeking co-ordination or an administration with which co-ordination is sought, or the Board, may request additional information which they may require to assess the level of interference to the services concerned.

2.8 ~~639AU~~ ~~(3)~~ ~~Spa2~~ Where the Board receives a request under ~~No. 639AS *a)* or *b)*~~, it shall forthwith send a telegram to the administration concerned requesting immediate acknowledgement.

2.9 ~~639AV~~ ~~(4)~~ ~~Spa2~~ Where the Board receives an acknowledgement following its action under ~~No. 639AU~~, or where the Board receives a request under ~~No. 639AS *c)* or *d)*~~, it shall forthwith send a telegram to the administration concerned requesting an early decision in the matter.

2.10 ~~639AW~~ ~~(5)~~ Where the Board receives a request under ~~No. 639AS f).~~ / paragraph 2.6 d),
~~Spa2~~ it shall endeavour to effect co-ordination in accordance with the provisions of ~~Nos. 639AJ and 639AN~~/ as appropriate. The Board shall also, where appropriate, act in accordance with ~~No. 639AL~~. / paragraph 2.1, / paragraph 2.3. Where the Board receives no acknowledgement to its request for co-ordination within the periods specified in ~~No. 639AO or 639AP~~, / paragraph 2.5, ~~as appropriate~~, it shall act in accordance with ~~No. 639AU~~/ paragraph 2.8.

2.11 ~~639AX~~ ~~(6)~~ Where an administration fails to reply within thirty days
~~Spa2~~ of dispatch of the Board's telegram requesting an acknowledgement sent under ~~No. 639AU~~/ or fails to give a decision in the matter within / paragraph 2.8, thirty days of dispatch of the Board's telegram of request under ~~No. 639AV~~/ it shall be deemed that the administration with which co-ordination was sought has undertaken: / paragraph 2.9,

a) that no complaint will be made in respect of any harmful interference which may be caused to the services rendered by its/~~space or terrestrial radiocommunication~~ / broadcasting-satellite stations by the use of the assignment for which co-ordination was requested;

/ *b)* that its/~~space or terrestrial radiocommunication~~ / broadcasting-satellite stations will not cause harmful interference to the use of the assignment for which co-ordination was requested. /

2.12 ~~639AY~~ ~~(7)~~ Where necessary, as part of the procedure under ~~No. 639AS~~/ / paragraph 2.6,
~~Spa2~~ the Board shall assess the level of interference. In any case, the Board shall inform the administrations concerned of the results obtained.

2.13 ~~639AZ § 5.~~ In the event of continuing disagreement between one
~~Spa2~~ administration seeking to effect co-ordination and one with which co-ordination has been sought, provided that the assistance of the Board has been requested, the administration seeking co-ordination may, after one hundred and fifty days from the date of the request for co-ordination, taking into consideration the provisions of ~~No. 639BF~~/ / paragraph 3.4 send its notice concerning the proposed assignment to the Board.

Section III. Notification of Frequency Assignments

3.1 ~~639BA § 6. (1)~~ Any frequency assignment to/an earth or/space station/shall / in the Fixed-Satellite Service
~~Spa2~~ be notified to the Board:

a) if the use of the frequency concerned is capable of causing harmful interference to ~~any service~~/of another administration; or / an assignment for a broadcasting-satellite station in the / Plan /1)

1) Attention of administratons is specifically drawn to the application of paragraph 2.1 above.

~~*b) if the frequency is to be used for international radio-communications; or*~~

b) *c)* if it is desired to obtain international recognition of the use of the frequency.

/ 3.2 ~~639BB~~ ~~(2)~~ ~~Spa2~~ Similar notice shall be given for any frequency to be used for the reception of transmissions from earth or space stations by a particular space or earth station in each case where one or more of the conditions specified in ~~No. 639BA~~ are applicable. / paragraph 3.1

3.3 ~~639BE § 7~~. ~~Spa2~~ ~~639BD~~ For any notification under ~~No. 639BA, 639BB, 639BC~~, or paragraph 3.1 / or 3.2 / , an individual notice for each frequency assignment shall be drawn up as prescribed in Appendix ~~1A~~, the various Sections of which specify the basic characteristics to be furnished according to the case. ~~It is recommended that the notifying administration should also supply the additional data called for in Section A of that Appendix,~~ / 2 / together with such further data as it may consider appropriate.

3.4 ~~639BF § 8~~. ~~(1) For a frequency assignment to an earth or space station,~~ ~~Spa2~~ ~~each~~ notice must reach the Board not earlier than three years before the date on which the assignment is to be brought into use. The notice must reach the Board in any case not later than ninety days [1] before this date, ~~except in the case of assignments in the space research service in bands allocated exclusively to this service or in shared bands in which this service is the sole primary service. In the case of such an assignment in the space research service, the notice should, whenever practicable, reach the Board before the date on which the assignment is brought into use, but it must in any case reach the Board not later than thirty days after the date it is actually brought into use.~~ / Each

3.5 ~~639BG~~ ~~(2)~~ ~~Spa2~~ Any frequency assignment to an earth or space station, the notice of which reaches the Board after the applicable period specified in ~~No. 639BF~~, shall, where it is to be recorded, bear a mark in the Master Register to indicate that it is not in conformity with ~~No. 639BF~~. / paragraph 3.4 / paragraph 3.4.

/ (To be supplied later)

Section IV. ~~**Procedure for the Examination of Notices and the Recording of Frequency Assignments in the Master Register**~~

~~639BF.1~~ ~~Spa2~~ [1] The notifying administration shall take this limit into account when deciding, where appropriate, to initiate the co-ordination procedure(s).

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/43-E
2 February 1977
Original : English

SUB-WORKING GROUP 6B1

DRAFT SECOND REPORT OF SUB-WORKING GROUP 6B1

TO WORKING GROUP 6B

The Sub-Working Group has prepared the text contained in the Annex to provide procedures for the implementation of stations in the Fixed-Satellite Service in the band 11.7 - 12.2 GHz in Region 2 in cases where broadcasting satellite stations are involved.

The Annex is largely based on procedures contained in Article 9A of the Radio Regulations. The most significant change is the substitution of a power flux-density limit, in lieu of Appendix 29, to determine the need for initiating the coordination procedure.

It is intended that the Annex would apply only with respect to broadcasting-satellite stations which are contained in the / Plan /. The implementation of stations in the Fixed-Satellite Service with respect to broadcasting-satellite stations which may not be in the / Plan /, and with respect to other classes of stations will still be treated in accordance with Article 9A of the Radio Regulations.

In the preparation of the Annex it has been understood that only geostationary satellites would be utilized for space services in the band in question. It would be desirable if that restriction could be stated in an appropriate section of the Final Acts.

With regards to the Annex, the delegation of Italy has reserved its position on item 2.13.

H.E. WEPPLER
Chairman of Sub-Working Group 6B1

Annex : 1

ARCHIVES U.I.T. GENÈVE

A N N E X

ARTICLE /_7

PRELIMINARY PROCEDURES, NOTIFICATION AND RECORDING IN THE MASTER INTERNATIONAL FREQUENCY REGISTER OF FREQUENCY ASSIGNMENTS TO STATIONS IN THE FIXED-SATELLITE SERVICE IN THE FREQUENCY BAND 11.7 - 12.2 GHz (IN REGION 2) IN CASES WHERE BROADCASTING-SATELLITE STATIONS ARE INVOLVED[1)]

SECTION I - PROCEDURE FOR THE ADVANCE PUBLICATION OF INFORMATION ON PLANNED FIXED-SATELLITE SYSTEMS

1.1 An administration (or one acting on behalf of a group of named administrations) which intends to establish a fixed-satellite system shall, prior to the procedure in accordance with paragraph 2.1 where applicable, send to the International Frequency Registration Board not earlier than five years before the date of bringing into service each satellite network of the planned system, the information listed in Appendix 1B to the Radio Regulations /[2)]7

1.2 Any amendments to the information sent concerning a planned satellite system in accordance with paragraph 1.1 shall also be sent to the Board as soon as they become available.

1.3 The Board shall publish the information sent under paragraphs 1.1 and 1.2 in a special section of its weekly circular and shall also, when the weekly circular contains such information, so advise all administrations by circular telegram.

1.4 If, after studying the information published under paragraph 1.3, any administration is of the opinion that interference, which may be unacceptable, may be caused to its assignments contained within the Broadcasting-Satellite /_Plan_7 , it shall within ninety days after the date of the weekly circular publishing the information listed in Appendix 1B to the Radio Regulations, send its comments to the administration concerned. A copy of these comments shall also be sent to the Board. If no such comments are received from an

---

1) These provisions do not replace the procedures prescribed in Article 9A of the Radio Regulations in cases where stations other than those of the Broadcasting-Satellite Service as contained in the /_Plan_7 are involved.

/_2) For that purpose it would be desirable to supplement the information requested under Section D, item 4, of Appendix 1B by indicating the total peak power of the space station transmission, and under Section D, item 5, by providing a measured radiation diagram or by referring to a suitable reference radiation diagram, for the space station transmitting antenna._7

administration within the period mentioned above, it may be assumed that that administration has no basic objections to the planned fixed-satellite network(s) of that system on which details have been published.

1.5 An administration receiving comments sent in accordance with paragraph 1.4 shall endeavour to resolve any difficulties that may arise without considering the possibility of adjustment to broadcasting-satellite systems of other administrations. If no such means can be found, the administration concerned is then free to apply to other administrations concerned to solve these difficulties, provided that any modification which may result to the /Plan/ are in accordance with Article /modification to the Plan/.

1.6 In their attempts to resolve the difficulties mentioned above, administrations may seek the assistance of the Board.

1.7 In complying with the provisions of paragraphs 1.5 and 1.6, an administration responsible for a planned fixed-satellite system shall, if necessary, defer its commencement of the coordination procedure of paragraph 2.1 or where this is not applicable, the sending of its notices to the Board, until one hundred and fifty days after the date of the weekly circular containing the information listed in Appendix 1B to the Radio Regulations on the relevant satellite network. However, in respect of those administrations with whom difficulties have been resolved or who have responded favourably, the coordination procedure, where applicable, may be commenced prior to the expiry of the one hundred and fifty days mentioned above.

1.8 An administration on behalf of which details of planned fixed-satellite networks in its system have been published, in accordance with the provisions of paragraphs 1.1 to 1.3, shall periodically inform the Board whether or not comments have been received and of the progress made, with other administrations, in resolving any difficulties. The Board shall publish this information in a special section of its weekly circular and shall also, when the weekly circular contains such information, so inform all administrations by circular telegram.

SECTION II - /COORDINATION/ PROCEDURES TO BE APPLIED IN APPROPRIATE CASES

2.1 Before an administration notifies to the Board or brings into use any new or modified frequency assignment to a space station in the Fixed-Satellite Service, it shall seek the agreement of any other administration having an assignment to a broadcasting-satellite station appearing in the /Plan/, if

- any portion of the occupied bandwidth proposed for the space station in the Fixed-Satellite Service falls within the occupied bandwidth of a broadcasting-satellite assignment, and

- the power flux density which would be produced by the proposed fixed-satellite assignment exceeds the value specified in Appendix /[1]/[*]/.

For this purpose, the administration seeking agreement shall send to any other such administration the information listed in Appendix 1A to the Radio Regulations /[1)]/.

2.2 No additional agreement is necessary when an administration proposes to change the characteristics of an existing assignment in such a way as will, in respect of the Broadcasting-Satellite Service of another administration, meet the requirements of paragraph 2.1 above, or, where this assignment has previously been the subject of agreement, and will not cause any interference potential over that previously agreed.

2.3 An administration seeking agreement under paragraph 2.1 shall at the same time send to the Board a copy of the request for agreement with the information listed in Appendix 1A to the Radio Regulations and the name(s) of the administration(s) with which agreement is sought. The Board shall determine on the basis of Appendix 1 whose frequency assignments in the / Plan / are considered to be affected. The Board shall include the names of those administrations with the information received from the administration seeking agreement and shall publish this information in a special section of its weekly circular, together with a reference to the weekly circular in which details of the satellite system were published in accordance with Section I of this Article. When the weekly circular contains such information, the Board shall so inform all administrations by circular telegram.

2.4 An administration believing that it should have been included in the procedure under paragraph 2.1 shall have the right to request that it be brought into the procedure.

2.5 An administration with which agreement is sought under paragraph 2.1 shall acknowledge receipt of the coordination data immediately by telegram. If no acknowledgement is received within thirty days after the date of the weekly circular publishing the information under paragraph 2.3, the administration seeking coordination shall dispatch a telegram requesting acknowledgement, to which the receiving administration shall reply within a further period of thirty days. Upon receipt of the agreement data, an administration shall, having regard to the proposed date of bringing into use of the assignment for which agreement was requested, promptly examine the matter with regard to interference[2)] which would be caused to the service rendered by its stations in respect of which agreement is sought under paragraph 3.1; and shall, within ninety days from the date of the relevant weekly circular, notify of its agreement.

/[*] to be provided by Committee 4/

/[1)] For that purpose, it would be desirable to supplement the information requested in Section D, item 10 of Appendix 1A, by providing a measured radiation diagram, or by referring to a suitable reference radiation diagram, for the space station transmitting antenna./

2) The criteria to be employed in evaluating interference levels shall be based upon the technical information contained in / the Final Acts / or upon relevant CCIR Recommendations and shall be agreed between the administrations concerned.

If the administration with which agreement is sought does not agree, it shall, within the same period, send to the administration seeking agreement the technical details upon which its disagreement is based, and make such suggestions as it may be able to offer with a view to a satisfactory solution of the problem. A copy of these comments shall also be sent to the Board.

2.6 An administration seeking coordination may request the Board to endeavour to effect coordination in those cases where :

a) an administration with which coordination is sought under paragraph 2.1 fails to acknowledge receipt, under paragraph 2.5, within sixty days after the date of the weekly circular publishing the information relating to the request for coordination;

b) an administration has acknowledged receipt under paragraph 2.5, but fails to give a decision within ninety days from the date of the relevant weekly circular;

c) there is disagreement between the administration seeking coordination and an administration with which coordination is sought as to the acceptable level of interference;

d) coordination between administrations is not possible for any other reason.

In so doing, it shall furnish the Board with the necessary information to enable it to endeavour to effect such coordination.

2.7 Either the administration seeking coordination or an administration with which coordination is sought, or the Board, may request additional information which they may require to assess the level of interference to the services concerned.

2.8 Where the Board receives a request under paragraph 2.6 a), it shall forthwith send a telegram to the administration concerned requesting immediate acknowledgement.

2.9 Where the Board receives an acknowledgement following its action under paragraph 2.8, or where the Board receives a request under paragraph 2.6 b), it shall forthwith send a telegram to the administration concerned requesting an early decision in the matter.

2.10 Where the Board receives a request under paragraph 2.6 d), it shall endeavour to effect coordination in accordance with the provisions of paragraph 2.1, as appropriate. The Board shall also, where appropriate, act in accordance with paragraph 2.3. Where the Board receives no acknowledgement to its request for coordination within the periods specified in paragraph 2.5, it shall act in accordance with paragraph 2.8.

2.11 Where an administration fails to reply within thirty days of dispatch of the Board's telegram requesting an acknowledgement sent under paragraph 2.8, or fails to give a decision in the matter within thirty days of dispatch of the Board's telegram of request under paragraph 2.9, it shall be deemed that the administration with which coordination was sought has undertaken :

a) that no complaint will be made in respect of any harmful interference which may be caused to the services rendered by its broadcasting-satellite stations by the use of the assignment for which coordination was requested;

b) that its broadcasting-satellite stations will not cause harmful interference to the use of the assignment for which coordination was requested.

2.12 Where necessary, as part of the procedure under paragraph 2.6, the Board shall assess the level of interference. In any case, the Board shall inform the administrations concerned of the results obtained.

2.13 In the event of continuing disagreement between one administration seeking to effect coordination and one with which coordination has been sought, provided that the assistance of the Board has been requested, the administration seeking coordination may, after one hundred and fifty days from the date of the request for coordination, taking into consideration the provisions of paragraph 3.4, send its notice concerning the proposed assignment to the Board.

SECTION III - NOTIFICATION OF FREQUENCY ASSIGNMENTS

3.1 Any frequency assignment to a space station in the Fixed-Satellite Service shall be notified to the Board :

a) if the use of the frequency concerned is capable of causing harmful interference to an assignment for a broadcasting-satellite station in the /Plan/[1)] of another administration; or

b) if it is desired to obtain international recognition of the use of the frequency.

3.2 Similar notice shall be given for any frequency to be used for reception by an earth station where one or more of the conditions specified in paragraph 3.1 are applicable.

3.3 For any notification under paragraph 3.1 /or 3.2/, an individual notice for each frequency assignment shall be drawn up as prescribed in Appendix 1A to the Radio Regulations, the various Sections of which specify the basic characteristics to be furnished according to the case together with such further data as it may consider appropriate. /*/

3.4 Each notice must reach the Board not earlier than three years before the date on which the assignment is to be brought into use. The notice must reach the Board in any case not later than ninety days[2)] before this date.

---

1) Attention of administrations is specifically drawn to the application of paragraph 2.1 above.

/* For that purpose, it would be desirable to supplement the information requested in Section D, item 10 of Appendix 1A, by providing a measured radiation diagram, or by referring to a suitable reference radiation diagram, for the space station transmitting antenna./

2) The notifying administration shall take this limit into account when deciding, where appropriate, to initiate the coordination procedure(s).

3.5 Any frequency assignment to an earth or space station, the notice of which reaches the Board after the applicable period specified in paragraph 3.4, shall, where it is to be recorded, bear a mark in the Master Register to indicate that it is not in conformity with paragraph 3.4.

SECTION IV - PROCEDURE FOR THE EXAMINATION OF NOTICES AND THE RECORDING OF FREQUENCY ASSIGNMENTS IN THE MASTER REGISTER

4.1 Any notice which does not contain at least those basic characteristics specified in Appendix 1A to the Radio Regulations shall be returned by the Board immediately, by airmail, to the notifying administration with the reasons therefor.

4.2 Upon receipt of a complete notice, the Board shall include the particulars thereof, with the date of receipt, in its weekly circular, which shall contain the particulars of all such notices received since the publication of the previous circular.

4.3 The circular shall constitute the acknowledgement to the notifying administration of the receipt of a complete notice.

4.4 Complete notices shall be considered by the Board in the order of their receipt. The Board shall not postpone the formulation of a finding unless it lacks sufficient data to render a decision in connection therewith; moreover, the Board shall not act upon any notice which has a technical bearing on an earlier notice still under consideration by the Board, until it has reached a finding with respect to such earlier notice.

4.5 The Board shall examine each notice :

4.5.1 a) with respect to its conformity with the Convention, the relevant provisions of the Radio Regulations and the provisions of the Final Acts (with the exception of those relating to the coordination procedures and the probability of harmful interference);

4.5.2 b) where appropriate, with respect to its conformity with the provisions of paragraph 2.1, relating to the coordination of the use of the frequency assignment with the other administrations concerned having an assignment to a broadcasting-satellite station appearing in the Plan;

4.5.3 c) where appropriate, with respect to the probability of harmful interference to the service rendered by a broadcasting-satellite station for which a frequency assignment appears in the Plan.

4.6 Depending upon the findings of the Board subsequent to the examination prescribed in paragraphs 4.5.1, 4.5.2 and 4.5.3, as appropriate, further action shall be as follows :

4.7 Finding favourable with respect to paragraph 4.5.1 in cases where the provisions of paragraph 4.5.2 are not applicable.

4.7.1 The assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d.

4.8 Finding unfavourable with respect to paragraph 4.5.1.

4.8.1 Where the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the Radio Regulations and the finding is favourable with respect to paragraphs 4.5.2 and 4.5.3, as appropriate, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d.

4.8.2 Where the notice includes a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the Radio Regulations and the finding is unfavourable with respect to paragraphs 4.5.2 or 4.5.3, as appropriate, the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding. In those circumstances the notifying administration shall undertake not to bring into use the frequency assignment until the coordination in paragraph 3.14 can be fulfilled. But the administrations concerned may explore the possibility of reaching an agreement on the use of the proposed frequency assignment for a specified period.

4.8.3 Where the notice does not include a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the Radio Regulations, it shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

4.8.4 If the notifying administration resubmits the notice unchanged, it shall be treated in accordance with the provisions of paragraph 4.8.3. If it is resubmitted with a specific reference to the fact that the station will be operated in accordance with the provisions of No. 115 of the Radio Regulations, it shall be treated in accordance with the provisions of paragraph 4.8.1 or 4.8.2, as appropriate. If it is resubmitted with modifications which, after re-examination, result in a favourable finding by the Board with respect to paragraph 4.5.1, it shall be treated as a new notice.

4.9 Finding favourable with respect to paragraph 4.5.1 in cases where the provisions of paragraph 4.5.2 are applicable.

4.9.1 Where the Board finds that the coordination procedures mentioned in paragraph 4.5.2 have been successfully completed with all administrations whose assignments to broadcasting-satellite stations appearing in the / Plan / may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d.

4.9.2 Where the Board finds that either of the coordination procedures mentioned in paragraph 4.5.2 has not been applied, and the notifying administration requests the Board to effect the required coordination, the Board shall take appropriate action and shall inform the administrations concerned of the results obtained. If the Board's efforts are successful, the notice shall be treated in accordance with paragraph 4.9.1. If the Board's efforts are unsuccessful, the notice shall be examined by the Board with respect to the provisions of paragraph 4.5.3.

4.9.3 Where the Board finds that either of the coordination procedures mentioned in paragraph 4.5.2 has not been applied, and the notifying administration does not request the Board to effect the required coordination, the notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this action and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

4.9.4 Where the notifying administration resubmits the notice and the Board finds that the coordination procedures mentioned in paragraph 4.5.2 have been successfully completed with all administrations whose assignments to broadcasting-satellite stations appearing in the /Plan/ may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the original notice shall be entered in Column 2d. The date of receipt by the Board of the resubmitted notice shall be entered in the Remarks Column.

4.9.5 Where the notifying administration resubmits the notice with a request that the Board effect the required coordination under paragraph 2.1, it shall be treated in accordance with the provisions of paragraph 4.9.2. However, in any subsequent recording of the assignment, the date of receipt by the Board of the resubmitted notice shall be entered in the Remarks Column.

/4.9.6 Where the notifying administration resubmits the notice and states it has been unsuccessful in effecting the coordination, the Board shall inform the administrations concerned thereof. The notice shall be examined by the Board with respect to the provisions of paragraph 4.5.3, as appropriate. However, in any subsequent recording of the assignment, the date of receipt by the Board of the resubmitted notice shall be entered in the Remarks Column./

4.10 Finding favourable with respect to paragraphs 4.5.1 and 4.5.3.

4.10.1 The assignment shall be recorded in the Master Register. The date of receipt by the Board of the notice shall be entered in Column 2d.

4.11 Finding favourable with respect to paragraph 4.5.1, but unfavourable with respect to paragraph 4.5.3.

4.11.1 The notice shall be returned immediately by airmail to the notifying administration with the reasons of the Board for this finding and with such suggestions as the Board may be able to offer with a view to the satisfactory solution of the problem.

4.11.2 Should the notifying administration resubmit the notice with modifications which result, after re-examination, in a favourable finding by the Board with respect to paragraph 4.5.3, the assignment shall be recorded in the Master Register. The date of receipt by the Board of the original notice shall be entered in Column 2d. The date of receipt by the Board of the resubmitted notice shall be indicated in the Remarks Column.

4.11.3 Should the notifying administration resubmit the notice, either unchanged, or with modifications which decrease the probability of harmful interference, but not sufficiently to permit the provisions of paragraph 4.11.2 to be applied, and should that administration insist upon reconsideration of the notice, but should the Board's finding remain unchanged, the notification should again be returned to the notifying administration in accordance with paragraph 3.30. In those circumstances, the notifying administration shall undertake not to bring into use the proposed frequency assignment until the coordination in paragraph 3.31 can be fulfilled. But the administrations concerned may explore the possibility of reaching an agreement on the use of the frequency assignment for a specified period. In that event the IFRB shall be notified of the agreement and the frequency assignment shall be recorded in the Master Register with a note indicating that the assignment is valid only for the specified period. The date of receipt by the Board of the original notice shall be entered in Column 2d.

4.12 Change in the basic characteristics of assignments already recorded in the Master Register.

4.12.1 A notice of a change in the basic characteristics of an assignment in the Fixed-Satellite Service already recorded, as specified in Appendix 1A of the Radio Regulations (except the name of the station or the name of the locality in which it is situated) shall be examined by the Board according to paragraph 4.5.1 and, where appropriate, paragraphs 4.5.2 and 4.5.3, and the provisions of paragraphs 4.7 to 4.11.3 inclusive shall apply. Where the change should be recorded, the original assignment shall be amended according to the notice.

4.12.2 However, in the case of a change in the characteristics of an assignment which is in conformity with paragraph 4.5.1, should the Board reach a favourable finding with respect to paragraphs 4.5.2 and 4.5.3, where appropriate, or find that the changes do not increase the probability of harmful interference to assignments to broadcasting-satellite stations appearing in the /Plan/, the amended assignment shall retain the original date in Column 2d. The date of receipt by the Board of the notice relating to the change shall be entered in the Remarks Column.

4.12.3 In applying the provisions of this section, any resubmitted notice which is received by the Board more than two years after the date of its return by the Board, shall be considered as a new notice.

4.13 Recording of frequency assignments in the Fixed-Satellite Service notified before being brought into use.

4.13.1 If a frequency assignment notified in advance of bringing into use has received a favourable finding by the Board with respect to paragraph 4.5.1 and, where appropriate, paragraphs 4.5.2 and 4.5.3, it shall be entered provisionally in the Master Register with a special symbol in the Remarks Column indicating the provisional nature of that entry.

4.13.2 If, within thirty days after the projected date of bringing into use, the Board receives confirmation from the notifying administration of the date of putting into use, the special symbol shall be deleted from the Remarks Column. In the case where the Board, in the light of a request from the notifying administration received before the end of the thirty-day period, finds that exceptional circumstances warrant an extension of this period, the extension shall in no case exceed one hundred and fifty days.

4.13.3 If the Board does not receive this confirmation within the period referred to in paragraph 4.13.2, the entry concerned shall be cancelled. The Board shall advise the administration concerned before taking such action.

SECTION V - RECORDING OF FINDINGS IN THE MASTER REGISTER

5. In any case where a frequency assignment is recorded in the Master Register, the finding reached by the Board shall be indicated by a symbol in Column 13a. In addition, a remark indicating the reasons for any unfavourable finding shall be inserted in the Remarks Column.

SECTION VI - CATEGORIES OF FREQUENCY ASSIGNMENTS

6.1 The date in Column 2c shall be the date of putting into use notified by the administration concerned. It is given for information only.

6.2 If harmful interference is actually caused to the reception of any broadcasting-satellite station whose frequency assignment appears in the / Plan_/ as a result of a favourable finding with respect to paragraphs 4.5.1, 4.5.2 and 4.5.3, as appropriate, by the use of a frequency assignment to a spece radiocommunication station subsequently recorded in the Master Register in accordance with the provisions of paragraph 4.11.3, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

6.3 If harmful interference to the reception of any broadcasting-satellite station whose assignment is in accordance with the / Plan_/ or paragraph 4.5.1, as appropriate, is actually caused by the use of a frequency assignment which is not in conformity with paragraph 4.5.1, the station using the latter frequency assignment must, upon receipt of advice thereof, immediately eliminate this harmful interference.

SECTION VII - REVIEW OF FINDINGS

7.1 The review of a finding by the Board may be undertaken :

- at the request of the notifying administration;
- at the request of any other administration interested in the question, but only on the grounds of actual harmful interference;
- on the initiative of the Board itself when it considers this is justified.

7.2 The Board, in the light of all the data at its disposal shall review the matter, taking into account paragraph 4.5.1 and, where appropriate, paragraphs 4.5.2 and 4.5.3, and shall render an appropriate finding, informing the notifying administration prior either to the promulgation of its finding or to any recording action.

7.3 If the finding of the Board is then favourable it shall enter in the Master Register the changes that are required so that the entry shall appear in the future as if the original finding had been favourable.

7.4 If the finding with regard to the probability of harmful interference remains unfavourable, no change shall be made in the original entry.

SECTION VIII - MODIFICATION, CANCELLATION AND REVIEW OF ENTRIES IN THE MASTER REGISTER

8.1 Where the use of a recorded assignment to a station in the Fixed-Satellite Service is suspended for a period of eighteen months, the notifying administration shall, within this eighteen-month period, inform the Board of the date on which such use was suspended and of the date on which the assignment is to be brought back into regular use.

8.2 Whenever it appears to the Board, whether or not as a result of action under paragraph 8.1, that a recorded assignment to a space station in the Fixed-Satellite Service has not been in regular use for more than eighteen months, the Board shall inquire of the notifying administration as to when the assignment is to be brought back into regular use.

8.3 If no reply is received within six months of action by the Board under paragraph 8.2, or if the reply does not confirm that the assignment to a space station in the Fixed-Satellite Service is to be brought back into regular use within this six-month limit, a mark shall be applied against the entry in the Master Register.

8.4 In case of permanent discontinuance of the use of any recorded frequency assignment, the notifying administration shall inform the Board within ninety days of such discontinuance, whereupon the entry shall be removed from the Master Register.

8.5 Whenever it appears to the Board from the information available that a recorded assignment has not been brought into regular operation in accordance with the notified basic characteristics, or is not being used in accordance with those basic characteristics, the Board shall consult the notifying administration and, subject to its agreement, shall either cancel or suitably modify the entry.

8.6 If, in connection with an inquiry by the Board under paragraph 8.5 the notifying administration has failed to supply the Board within forty-five days with the necessary or pertinent information, the Board shall make suitable entries in the Remarks Column of the Master Register to indicate the situation.

SECTION IX - STUDIES AND RECOMMENDATIONS

9.1 If it is requested by any administration, and if the circumstances appear to warrant, the Board, using such means at its disposal as are appropriate in the circumstances, shall conduct a study of cases of alleged contravention or non-observance of the provisions of / the Final Acts / or of harmful interference.

9.2 The Board shall thereupon prepare and forward to the administration concerned a report containing its findings and recommendations for the solution of the problem.

9.3 In a case where, as a result of a study, the Board submits to one or more administrations suggestions or recommendations for the solution of a problem, and where no answer has been received from one or more of these administrations within a period of ninety days, the Board shall consider that the suggestions or recommendations concerned are unacceptable to the administrations which did not answer. If it was the requesting administration which failed to answer within this period, the Board shall close the study.

SECTION X - MISCELLANEOUS PROVISIONS

10.1 If it is requested by any administration, particularly by an administration of a country in need of special assistance, and if the circumstances appear to warrant, the Board, using such means at its disposal as are appropriate in the circumstances, shall render the following assistance :

a) computation of the type described in Appendix / /;

b) any other assistance of a technical nature for completion of the procedures in this Article.

10.2 In making a request to the Board under paragraph 10.1, the administration shall furnish the Board with the necessary information.

10.3 The technical standards of the Board shall be based upon the relevant provisions of the / Final Acts / the Radio Regulations and the Appendices thereto, the decisions of Administrative Conferences of the Union, as appropriate, the Recommendations of the CCIR, the state of the radio art and the development of new transmission techniques.

10.4 The Board shall promulgate to administrations its findings and reasons therefor, together with all changes made to the Master Register, through its weekly circular referred to in No. 497.

10.5 In case a Member or Associate Member of the Union avails itself of the provisions of Article 50 of the Convention, the Board shall, upon request, make its records available for such proceedings as are prescribed in the Convention for the settlement of international disputes.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Addendum No. 2 to
Document No. DT/44-E
4 February 1977
Original : English, French

SECOND DRAFT TEXTS

ANNEX 6

RESOLUTION No. ...

RELATING TO THE UPDATING OF THE MASTER INTERNATIONAL FREQUENCY REGISTER FOR REGIONS 1 AND 3 ON THE DATE OF ENTRY INTO FORCE OF THE FINAL ACTS

The World Administrative Broadcasting-Satellite Conference, Geneva, 1977,

considering

a) that the Final Acts of this Conference will enter into force before the entry into force of the revised Radio Regulations of the WARC 1979 and up to this time the relevant provisions of the Radio Regulations and Resolutions Nos. Spa2 - 2 and Spa2 - 3 are still valid;

b) that according to No. 405BA in the band 11.7 - 12.2 GHz in Region 3 and in the band 11.7 - 12.5 GHz in Region 1 existing and future Fixed, Mobile and Broadcasting Services shall not cause harmful interference to broadcasting-satellite stations operating with the decisions of this Conference;

c) that the subsequent coordination procedure (Resolution No. Spa2 - 3) shall be applied only until Plans pursuant to Resolution No. Spa2 - 2 enter into force;

resolves

1. that all the administrations having or intending to have frequency assignments to Terrestrial Services in the bands concerned by the Broadcasting-Satellite Plan shall examine as soon as possible, whether or not these assignments will concern the broadcasting-satellite stations existing in the Plan (if necessary with the assistance of the IFRB);

2. that, if it is found that broadcasting-satellite stations could be interfered with, the administrations shall inform the IFRB as to measures they intend to take to ensure the protection of the broadcasting-satellite stations concerned before the date of entry into force of the Final Acts;

ARCHIVES U.I.T. GENÈVE

3. that administrations concerned may continue to use frequency assignments not in conformity with the Broadcasting-Satellite Plan provided agreement is reached with the administrations whose broadcasting-satellite stations are affected;

4. that the administrations asking for agreement shall inform the IFRB of this agreement reached;

5. that, upon receipt of such information the IFRB shall insert a symbol in the Remarks column of the Master Register indicating the duration specified in the agreement which shall also be published in a special section of the IFRB Weekly Circular;

invites the IFRB

to assist administrations in implementing the provisions of this Resolution.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Addendum No. 1 to
Document No. DT/44-E
4 February 1977
Original : English
French

Working Group 6D

SECOND DRAFT TEXTS

A N N E X 3

Article ...

FREQUENCY BANDS

The provisions of these Final Acts apply to the frequency bands between 11.7 and 12.5 GHz in Region 1 and between 11.7 and 12.2 GHz in Regions 2 and 3.

Article ...

EXECUTION OF THE FINAL ACTS

1. The Members of the Union in Regions 1 and 3 shall adopt for their Broadcasting-Satellite / space / stations operating in the frequency bands referred to in the Final Acts the characteristics specified in the Plan for those Regions.

2.*) The Members of the Union shall not change the characteristics specified in the Plan, or establish new stations, except as provided for in the appropriate Articles of these Final Acts.

/ 3./ / The Members of the Union shall endeavour to agree on the action required to reduce harmful interference caused by the application of these Final Acts. /

*) Reservation by USA

ANNEX 4

Article ...

APPROVAL OF THE FINAL ACTS

Members shall notify their approval of these Final Acts, as promptly as possible, to the Secretary-General, who shall at once inform the other Members of the Union. The act of approval shall constitute the agreement of Members to conform with the decisions jointly decided upon at the World Broadcasting-Satellite Administrative Radio Conference, Geneva 1977 and these Final Acts shall be regarded as an "agreement and associated plan" in accordance with resolves 1 of Resolution No. Spa2 - 2 of the World Administrative Radio Conference for Space Telecommunications (Geneva 1971) which requires*) the stations in the Broadcasting-Satellite Service to be established and operated in accordance with such agreements and associated plans.

---

*) Reservation by USA

A N N E X 5

Article ...

ENTRY INTO FORCE OF THE FINAL ACTS

These Final Acts shall enter into force on /day/ /month/ /year/ at /hour/ GMT.

Article ...

DURATION OF THE PLAN AND ITS ASSOCIATED PROVISIONS

1. The Plan and its associated provisions have been prepared in order to meet the requirements of the Broadcasting-Satellite Service in the bands concerned for a period of ... years from the date of the entry into force of the Final Acts. /The duration of the Plan for Region 2, in the case that such a Plan be established, will be determined by the competent Conference./

2. In any event, the Final Acts shall remain in force until their revision by a competent world administrative radio conference convened in accordance with the relevant provisions of the Convention in force.

ANNEX 7

RESOLUTION No. ...

RELATING TO THE ANNEXING TO THE RADIO REGULATIONS OF THE PLAN AND ITS ASSOCIATED PROVISIONS CONTAINED IN THE FINAL ACTS OF THE 1977 BROADCASTING SATELLITE CONFERENCE

The World Administrative Broadcasting-Satellite Conference, Geneva, 1977,

noting

a) that the World Administrative Radio Conference for Space Telecommunications, 1971, adopted Resolution No. Spa2 - 2 envisaging that stations in the Broadcasting-Satellite Service shall be established and operated in accordance with agreements and associated plans adopted by World or Regional Administrative Radio Conferences;

b) that the Conference has adopted a Plan and associated provisions for Regions 1 and 3;

considering

a) the wish expressed by the Conference to annex the Plan and its associated provisions to the Radio Regulations;

b) that this Conference is not competent to amend the Radio Regulations;

resolves

1. that the general World Administrative Radio Conference, 1979, be requested to annex the Plan and its associated provisions to become an integral part of the Radio Regulations, in the form (and to the extent) it deems most appropriate without thereby affecting their content or integrity;

requests

the Administrative Council to include in the agenda of the World Administrative Radio Conference 1979 the request referred to in the above paragraph.

ANNEX 8

RECOMMENDATION ....

RELATING TO THE CONVENING OF A CONFERENCE COMPETENT TO REVISE THE PLAN AND ASSOCIATED PROVISIONS CONCERNING THE BROADCASTING-SATELLITE SERVICE IN THE BAND 11.7-12.2 GHz (12.5 GHz IN REGION 1)

The World Administrative broadcasting-satellite Conference, Geneva, 1977,

considering

a) the rapid development of broadcasting-satellite techniques;

b) that all Members of the Union have an interest in the rational use of this frequency band;

c) that the avoidance of harmful interference between the services sharing this band can best be secured by a worldwide plan for the Broadcasting-Satellite Service;

d) that the Conference only has been able to provide a Plan for Regions 1 and 3;

recommends to the Administrative Council

to arrange for the convening of a conference competent to revise the Plan in ..... , unless it be necessary to convene such a conference earlier according to the provisions of the Convention;

recommends

1. that the Plan should only be revised by a competent conference;

2. the Administrative Council to arrange for the convening of such a Conference in ..... , unless it be necessary to convene such a conference earlier according to the provisions of the Convention.

ANNEX 9

RESOLUTION

RELATING TO THE PERIOD BETWEEN THE ENTRY INTO FORCE OF THE FINAL ACTS OF THE CONFERENCE AND THE DATE FOR THE ANNEXING OF THE PLAN AND ITS ASSOCIATED PROVISIONS IN THE RADIO REGULATIONS

The World Administrative Broadcasting-Satellite Conference, Geneva, 1977,

considering

a) that its Final Acts will come into force on . . . ;

b) that it in its Resolution No. has requested the 1979 WARC to annex to the Radio Regulations the Plan and its associated provisions established by the Conference;

c) that there will be an interim period between a) and b) above;

resolves

1. that during this interim period, as well as after the date when they have been annexed to the Radio Regulations, the Final Acts shall retain their integrity as a legal instrument and shall be binding on all Members.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/44-E
2 February 1977
Original : French/English

WORKING GROUP 6D

Working Group 6D

SECOND DRAFT TEXTS

Please find attached the revised texts of Annexes 1 and 2 of Document No. DT/40.

H.K. DE ZWART
Chairman, Working Group 6D

Annexes : 2

ARCHIVES U.I.T. GENÈVE

A N N E X 1

FINAL ACTS OF THE WORLD ADMINISTRATIVE RADIO CONFERENCE FOR THE PLANNING OF THE BROADCASTING-SATELLITE SERVICE IN FREQUENCY BANDS 11.7 - 12.2 GHz (12.5 GHz IN REGION 1), GENEVA, 1977

Preamble

The World Administrative Radio Conference, for the planning of the broadcasting-satellite service in frequency bands 11.7 - 12.2 GHz (12.5 GHz in Region 1), having been convened at Geneva on 10 January 1977, under Article 54 of the International Telecommunication Convention and in accordance with Resolution No. 27 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973) and Resolution No. Spa2 - 2 of the World Administrative Radio Conference for Space Telecommunications (Geneva 1971) has been charged :

- to establish the sharing criteria for the bands 11.7 - 12.2 GHz (in Regions 2 and 3) and 11.7 - 12.5 GHz (in Region 1) between the broadcasting-satellite service and the other services to which these bands are allocated;

- to plan for the broadcasting-satellite service in the above-mentioned bands;

- to establish procedures to govern the use of these bands by the broadcasting-satellite service and by the other services to which these bands are allocated;

- to consider the results of the work of the Group of Experts on the possible re-arrangement of the Radio Regulations.

The delegates of the following Members of the International Telecommunication Union :

- bearing in mind the importance of making the best possible use of the radio-frequency spectrum and the geostationary-satellite orbit as well as the need of an orderly development of the services to which these bands are allocated,

- taking into account the equal rights of all countries, large and small, even those countries not represented at the Conference,

have adopted, /subject to the approval of their respective competent authorities/ /in the name of their respective countries/, the plan and the following associated provisions :

(list of countries)

A N N E X 2

GENERAL DEFINITIONS

For the purposes of these Final Acts the following terms shall have the meanings defined below :

Union	: The International Telecommunication Union;
Secretary-General	: The Secretary-General of the Union;
WARC	: World Administrative Radio Conference;
Conference	: World Administrative Radio Conference for the planning of the broadcasting-satellite service in frequency bands 11.7 - 12.2 GHz (12.5 GHz in Region 1), called in short Broadcasting-Satellite Conference;
IFRB (Board)	: The International Frequency Registration Board;
CCIR	: The International Radio Consultative Committee;
Convention	: The International Telecommunication Convention;
Radio Regulations	: The Radio Regulations annexed to the Convention;
Regions 1, 2 and 3	: The geographical areas defined in Nos. 126 to 132 of the Radio Regulations, Geneva, 1959;
Master Register	: The Master International Frequency Register;
IFRB weekly circular	: (p.m.)
Plan	: The Plan and its appendices forming /Annex/ (...) to these Final Acts;
Administration	: Any governmental department or service responsible for discharging the obligations undertaken in the Convention and the Radio Regulations.

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/45-F/E/S
3 février 1977
Original : français
anglais
espagnol

GROUPE DE TRAVAIL 6A
WORKING GROUP 6A
GRUPO DE TRABAJO 6A

Pages 9, 10 et 11 révisées du Document N° 187

Revised pages 9 and 10 of Document No. 187

Páginas 9, 10 y 11 revisadas del Documento N.° 187

A. D'ARCEY
Chairman of Working Group 6A

ARCHIVES U.I.T. GENEVE

/ 5.3 Recording of frequency assignments notified before being brought into use /

/ 5.3.1 If a frequency assignment notified in advance of bringing into use has received a favouable finding by the Board with respect to the provisions of paragraph 5.2.1, it shall be entered provisionally in the Master Register with a special symbol in the Remarks Column indicating the provisional nature of that entry. /

/ 5.3.2 If, within thirty days after the projected date of bringing into use, the Board receives confirmation from the notifying administration of the date of putting into use, the special symbol shall be deleted from the Remarks Column. In the case where the Board, in the light of a request from the notifying administration received before the end of the thirty-day period, finds that exceptional circumstances warrant an extension of this period, the extension shall in no case exceed one hundred and fifty days. /

/ 5.3.3 If the Board does not receive this confirmation within the period referred to above, the entry concerned shall be cancelled. The Board shall advise the administration concerned before taking such action. /

5.4 Recording in the Master Register

5.4.1 In any case where a frequency assignment is recorded in the Master Register, the finding reached by the Board shall be indicated by a symbol in Column 13a. / In addition, where appropriate, a remark indicating the reasons for any unfavourable finding shall be inserted in the Remarks Column indicating the validity of any agreement in accordance with paragraph 5.2.5. /

5.4.2 The date in Column 2c shall be the date of putting into use notified by the administration concerned. It is given for information only.

~~/ 5.5 - - - Review of Findings /~~

~~/ 5.5.1 - - - The review of a finding by the Board may be undertaken:~~

~~- at the request of the notifying administration; -~~

~~- at the request of any other administration interested in the question, but only on the grounds of actual harmful interferenee; -~~

~~- on the initiative of the Board itself when it considers this is justified. /~~

~~/ 5.5.2 - - - The Board, in the light of all the data at its disposal shall review the matter, and shall render and appropriate finding, informing the notifying administration prior either to the promulgation of its finding or to any recording action. /~~

5.6 Cancellation of Entries in the Master Register

5.6.1 In case of permanent discontinuance of the use of any recorded frequency assignment, the notifying administration shall inform the Board within ninety days of such discontinuance, whereupon the entry shall be removed from the Master Register.

5.6.2 Whenever it appears to the Board from the information available that a recorded assignment has not been brought into regular operation in accordance with the notified basic characteristics, or is not being used in accordance with those basic characteristics, the Board shall consult the notifying administration and, subject to its agreement, shall either cancel or suitably modify the entry.

5.6.3 If, in connection with an inquiry by the Board under the terms of the preceding paragraph, the notifying administration has failed to supply the Board within forty-five days with the necessary or pertinent information, the Board shall make suitable entries in the Remarks Column of the Master Register to indicate the situation.

Miscellaneous provisions

1. If it is requested by any administration, and if the circumstances appear to warrant, the Board, using such means at its disposal as are appropriate in the circumstances, shall conduct a study of cases of alleged contravention or non-observance of these provisions, or of harmful interference.

The Board shall thereupon prepare and forward to the administration concerned a report containing its findings and recommendations for the solution of the problem.

2. In a case where, as a result of a study, the Board submits to one or more administrations suggestions or recommendations for the solution of a problem, and where no answer has been received from one or more of these administrations within a period of ninety days, the Board shall consider that the suggestions or recommendations concerned are unacceptable to the administrations which did not answer. If it was the requesting administration which failed to answer within this period, the Board shall close the study.

3. If it is requested by any administration, particularly by an administration of a country in need of special assistance, and if the circumstances appear to warrant, the Board, using such means at its disposal as are appropriate in the circumstances, shall render its assistance for the computation necessary to the verification of the limits set in Appendices / ..... /.

4. The technical standards of the Board shall be based upon the relevant parts of these provisions and the Appendices thereto, the decisions of Administrative Conferences of the Union, as appropriate, the Recommendation the C.C.I.R., the state of the radio art and the development of new transmission techniques without lowering the technical standards laid down in these provisions.

5. The Board shall promulgate to administrations its findings and reasons therefor, together with all changes made to the Master Register, through the weekly circular referred to in No. 497 of the Radio Regulations.

/ 6.- - - - ~~In case a Member of the Union avails itself of the provisions of Article 50 of the Convention, the Board shall, upon request, make its records available for such proceedings as are prescribed in the Convention for the settlement of international disputes.~~ /

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/46-E
4 February 1977
Original : French

COMMITTEE 2

Draft

REPORT OF COMMITTEE 2

(CREDENTIALS)

1. Terms of reference

The Committee's terms of reference are defined in Document No. 47.

2. Meetings held

The Committee held the following meetings :

- on 12 January 1977 : during this meeting, a Working Group was set up to examine in detail the credentials presented and report on them to the Committee. Under the chairmanship of Mr. A.M. DIONE (Republic of the Senegal), Chairman of the Committee, the Group met / 3 / times. Meetings were attended by Mr. A.W. Gamal (Democratic Republic of the Sudan), Vice-Chairman of the Committee, and delegates from the following countries : Federal Republic of Germany, Australia, Federative Republic of Brazil and Hungarian Peoples' Republic;

- on / / February 1977 : the conclusions of the Working Group were adopted (see Documents Nos. 151, / 213 and /).

3. The Committee adopted the conclusions set forth in the Annex to this report and recommends their adoption at the plenary meeting.

4. Concluding remark

The Committee also recommends that the Chairman and Vice-Chairman of the Committee should be authorized to examine the credentials deposited after the preparation of this report and before the end of the last plenary meeting of the Conference and to report on that subject direct to the plenary meeting.

A. DIONE
Chairman of Committee 2

Annex : 1

ARCHIVES UIT GENEVE

ANNEX

1. Delegations whose credentials have been deposited.

1.1 Delegations of the countries which have ratified the Convention or have acceded to it.

1.1.1 Delegations whose credentials have been found to be in order.

AFGHANISTAN (Republic of)

ALGERIA (Algerian Democratic and Popular Republic)

GERMANY (Federal Republic of)

SAUDI ARABIA (Kingdom of)

AUSTRALIA

BAHREIN (State of)

BANGLADESH (People's Republic of)

BYELORUSSIAN SOVIET SOCIALIST REPUBLIC

BRAZIL (Federative Republic of)

BULGARIA (People's Republic of)

BURUNDI (Republic of)

CANADA

CHILE

CHINA (People's Republic of)

CYPRUS (Republic of)

VATICAN CITY STATE

COLOMBIA (Republic of)

COMOROS (State of the)

KOREA (Republic of)

CUBA

DENMARK

EGYPT (Arab Republic of)

UNITED ARAB EMIRATES

ECUADOR

SPAIN

ETHIOPIA

FINLAND

FRANCE

GHANA

GREECE

GUINEA (Republic of)

HAITI (Republic of)

HUNGARIAN PEOPLE'S REPUBLIC

INDIA (Republic of)

INDONESIA (Republic of)

IRAN

IRELAND

ICELAND

JAPAN

LAO PEOPLE'S DEMOCRATIC REPUBLIC

LIECHTENSTEIN (Principality of)

LUXEMBOURG

MADAGASCAR (Democratic Republic of)

MALAYSIA

MALI (Republic of)

MALTA (Republic of)

MOROCCO (Kingdom of)

MAURITIUS

MAURITANIA (Islamic Republic of)

MEXICO

MONACO

NIGERIA (Federal Republic of)

NORWAY

NEW ZEALAND

PAPUA NEW GUINEA

PARAGUAY (Republic of)

NETHERLANDS (Kingdom of the)

PHILIPPINES (Republic of the)

POLAND (People's Republic of)

PORTUGAL

GERMAN DEMOCRATIC REPUBLIC

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

UKRAINIAN SOVIET SOCIALIST REPUBLIC

UNITED KINGDOM of Great Britain and Northern Ireland

SENEGAL (Republic of the)

SINGAPORE (Republic of)

SWEDEN

SWITZERLAND (Confederation of)

TANZANIA (United Republic of)

CZECHOSLOVAK SOCIALIST REPUBLIC

THAILAND

TUNISIA

UNION OF SOVIET SOCIALIST REPUBLICS

VENEZUELA (Republic of)

YUGOSLAVIA (Socialist Federal Republic of)

Conclusion:

These delegations are entitled to exercise the right to vote; they may sign the Final Acts of the Conference (No. 367 of the Convention).

1.1.2 Delegations for which provisional credentials have been deposited. These provisional credentials have been found in order.

/ none for the time being /

Conclusion:

These delegations are entitled to exercise the right to vote; they are not entitled to sign the Final Acts of the Conference (No. 362 of the Convention).

1.2 Delegations of countries which have not ratified the Convention or have not acceded to it or which are in arrears in their payments to the Union (see Document No. 28 and Corrigenda Nos. 1, 2 and 3).

1.2.1 Delegations whose credentials have been found to be in order.

AUSTRIA

BELGIUM

BENIN (People's Republic of)

BOLIVIA (Republic of)

IVORY COAST (Republic of the)

GABON REPUBLIC

GUATEMALA

UPPER VOLTA (Republic of)

ITALY

KENYA (Republic of)

KUWAIT (State of)

LIBYAN ARAB REPUBLIC

OMAN (Sultanate of)

UGANDA (Republic of)

PAKISTAN

PANAMA (Republic of)

ROUMANIA (Socialist Republic of)

SUDAN (Democratic Republic of the)

CHAD (Republic of the)

TOGOLESE REPUBLIC

TURKEY

YEMEN ARAB REPUBLIC

YEMEN (People's Democratic Republic of)

Conclusion:

These delegations are not entitled to exercise the right to vote; they are entitled to sign the Final Acts of the Conference.

1.2.2 Delegations whose provisional credentials have been found to be in order.

NICARAGUA

SOMALI DEMOCRATIC REPUBLIC

URUGUAY (Oriental Republic of)

Conclusion:

These delegations are not entitled to exercise the right to vote; they are not entitled to sign the Final Acts of the Conference.

2. Delegations for which no credentials have been deposited.

ARGENTINE REPUBLIC

CENTRAL AFRICAN EMPIRE

CONGO (People's Republic of)

UNITED STATES OF AMERICA

JORDAN (Hashemite Kingdom of)

LEBANON

MONGOLIA (People's Republic of)

NIGER (Republic of the)

QATAR (State of)

ZAMBIA (Republic of)

Conclusion:

These delegations are not entitled to exercise the right to vote; they are not entitled to sign the Final Acts of the Conference (No. 359 of the Convention).

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/47-E
4 February 1977
Original : French

COMMITTEE 5

Note by the Chairman of Committee 5

(Planning)

CHARACTERISTICS GIVEN IN THE PLAN

1. Country symbol and IFRB Serial Number.

2. Nominal longitude in degrees.

3. Channel number.

4. Boresight geographical coordinates (in degrees and tenths)

5. Antenna aperture. For an elliptical antenna this column contains two figures corresponding to the major axis and the minor axis respectively.

6. Orientation of the ellipse determined as follows : in a plane normal to the beam axis, the direction of a major axis of the ellipse is specified as the angle measured anti-clockwise from a line parallel to the equatorial plane to the major axis of the ellipse, to the nearest degree.

7. ΔG (Difference between the e.i.r.p. directed towards the edge of the coverage area and the e.i.r.p. in the beam axis).

8. Polarization (1 = direct, 2 = indirect).

9. E.i.r.p. in dBW

10. Equivalent protection margin.

11. Remarks.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/48-E
4 February 1977
Original : French

COMMITTEE 5

Note by the Chairman of Committee 5

(Planning)

TECHNICAL DATA USED FOR DRAWING UP THE PLAN /_S_/ AND TO BE USED IN IMPLEMENTING THE PLAN /_S_/

3.7 Channel spacing

The spacing between carrier frequencies is /_19.18 ..._/ MHz, the first carrier being /_11.7275_/ GHz and the last carrier being /_12.4755_/ GHz for Region 1 and /_ _/ GHz for Region 3.

3.8.1 Spacing in orbit

In establishing the plan, an orbital spacing of 6° between adjacent satellites was adopted.

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/49-E
7 February 1977
Original : English

COMMITTEE 4

Note by the Secretary-General

I have the honour to transmit to the Conference the attached note by the IFRB.

M. MILI

Secretary-General

Annex : 1

ARCHIVES U.I.T. GENÈVE

A N N E X

Note by the IFRB

POWER FLUX-DENSITY PRODUCED IN THE TERRITORIES OF REGION 2 BY SATELLITES IN BROADCASTING-SATELLITE SERVICE IN REGIONS 1 AND 3

Method of calculation

1. The power flux-density produced, under conditions of free space propagation, at a given point, P, on the surface of the earth, by a satellite in the geostationary orbit, can be calculated from the following data :

1.1 - nominal orbit position,

1.2 - e.i.r.p.,

1.3 - characteristics of the antenna beam at half-power points (i.e. the major and minor axes together with the orientation of the associated ellipse),

1.4 - geographical coordinates of the boresight (B),

1.5 - geographical coordinates of the point P.

2. The values relevant to items 1.1 to 1.4 above can be obtained readily from the Plan for the Broadcasting-Satellite Service in Regions 1 and 3 being prepared by the Conference. The point P can be chosen with reference to the objective of calculation. In the present context P could be, for instance, the most easterly point of Brazil.

3. The power flux-density produced at P is, then, calculated as follows :

- calculate the distance, d, between the satellite and the point P;
- calculate the spreading attenuation, A, for the distance d

  $(A = \frac{1}{4\pi d^2})$

- calculate the angle ϕ, as seen from the satellite, between points B and P;
- calculate ϕ_o, - 3 dB aperture of the beam, in the direction of P (in the case of a circular beam ϕ_o will be independent of direction);

- using the revised reference pattern (adopted in Committee 4) for the co-polar component of the satellite transmitting antenna, determine the relative antenna gain, g, for the calculated values of ϕ and ϕ_o;

- calculate the power flux-density, produced at P, from the relation :

  pfd = e.i.r.p. + g - A

4. The IFRB has prepared a programme for HP-67 calculator to calculate the power flux-density as described above. Accordingly, with the help of this programme, calculations can be made rapidly for all the required cases.

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/50-E
8 February 1977
Original : French

COMMITTEE 5

Note by the Chairman of Committee 5

(Planning)

DRAFT RESOLUTION

/ concerning ..... /

The World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service, Geneva, 1977,

considering

a) that the planning work has been based on calculation of the protection ratio at a number of test points,

b) that it would be desirable to know the protection ratio resulting from all the assignments in the Plan together at each of these test points, in order to assess any degradation that might result from subsequent amendments to the Plan,

c) that it would be helpful, in applying the procedure set forth in Appendix ...., for any administration wishing to put terrestrial stations into service to know the elevation angle of the receiving antennae of the earth stations in the broadcasting-satellite service;

invites the IFRB

to prepare, with a view to its / publication by the Secretary-General / / submission to the 1979 Conference /, an annex to the Plan containing the following information :

a) column 1 : country symbol and IFRB serial number for the beam;

b) column 2 : geographical coordinates of the test points as given in Document / .../;

c) column 3 : elevation angle of the receiving antenna of the earth station at each of these test points;

d) column 4 : azimuth in degrees clockwise from True North of the major beam axis of the earth station's receiving antenna;

e) column 5 : the protection ratio in dB resulting from all the assignments in the Plan together at each of these test points.

A. PETTI
Chairman of Committee 5
(Planning)

ARCHIVES U.I.T. GENÈVE

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/51-F/E/S
9 février 1977

COMMISSION 5
COMMITTEE 5
COMISIÓN 5

TABLEAU DE CORRESPONDANCE ENTRE LE NUMERO DU CANAL ET LA FREQUENCE ASSIGNEE

TABLE SHOWING CORRESPONDENCE BETWEEN CHANNEL NUMBERS AND ASSIGNED FREQUENCIES

CUADRO DE CORRESPONDENCIA ENTRE EL NÚMERO DEL CANAL Y LA FRECUENCIA ASIGNADA

Canal Channel N°	Fréquence assignée Assigned frequency Frecuencia asignada (MHz)	Canal Channel N°	Fréquence assignée Assigned frequency Frecuencia asignada (MHz)
1	11 727,48	21	12 111,08
2	11 746,66	22	12 130,26
3	11 765,84	23	12 149,44
4	11 785,02	24	12 168,62
5	11 804,20	25	12 187,80
6	11 823,38	26	12 206,98
7	11 842,56	27	12 226,16
8	11 861,74	28	12 245,34
9	11 880,92	29	12 264,52
10	11 900,10	30	12 283,70
11	11 919,28	31	12 302,88
12	11 938,46	32	12 322,06
13	11 957,64	33	12 341,24
14	11 976,82	34	12 360,42
15	11 996,00	35	12 379,60
16	12 015,18	36	12 398,78
17	12 034,36	37	12 417,96
18	12 053,54	38	12 437,14
19	12 072,72	39	12 456,32
20	12 091,90	40	12 475,50

ARCHIVES U.I.T. GENÈVE

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Addendum No. 1 to
Document No. DT/52-E
10 February 1977
Original : English

Note by the Secretary-General

I have the honour to submit to the Conference the attached Note by the IFRB.

M. MILI

Secretary-General

ARCHIVES U.I.T. GENÈVE

Note by the IFRB

POWER-FLUX DENSITY PRODUCED IN THE TERRITORIES OF REGION 2 BY SATELLITES IN THE BROADCASTING-SATELLITE SERVICE IN REGIONS 1 AND 3

The power-flux densities at the most easterly point of Brazil have been calculated for broadcasting satellites using orbital positions from 37°W to 5°E and channels 18 to 25 using the method in Document No. DT/49 and the data contained in Document No. 265.

In addition for two special cases of two Icelandic beams, ISL 0049, orbital position 31°W, Channel No. 21 and ISL 0050, orbital position 5°E, Channel 23, calculations have been made for different test points; 53°W, 48.5°N (Newfoundland) for ISL 0049 and 61.5°W, 66.5°N (Baffin Island) for ISL 0050.

For ISL 0049 the p.f.d. is - 128.36 dBW/m^2 and

for ISL 0050 the p.f.d. is - 112.06 dBW/m^2.

Annex : 1

A N N E X

PFD Produced in Region 2 at a Point having

Longitude = 35° W Latitude = 8° S

Nominal orbital position - 37.0			Nominal orbital position - 31.0			Nominal orbital position - 25.0			Nominal orbital position - 19.0		
Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2
CVA 0085	23	-139.72	CNR 0130	23, 27,31 35, 39	-140.93	GHA 0108	23, 27,31 35, 39	-134.45	BEL 0018	21, 25, 29 33, 37	-146,17
MCO 0116	21, 25, 29 33, 37	-145.75	CTI 0237	22, 26,30 34 38	-132.20	NGR 0115	24, 28, 32 36, 40	-127.77	GNE 0303	23, 27, 31 35, 39	-141.30
MTN 0223	22, 26, 30 34, 38	-128.92	E 0129	23, 27,31 35, 39	-137.48	MRC 0209	21, 25,29 33, 37	-128.74	HOL 0213	23, 27, 31 35, 39	-144.77
MTN 0288	24, 28,32 36, 40	-135,48	HVO 0107	21, 25,29 33, 37	-131.90	TUN 0150	22, 26,30 34, 38	- 141.14	I 0082	24, 28, 32 36, 40	-138.57
SEN 0222	21, 25,29 33, 37	-133.09	ISL 0049	21, 25,29 33, 37	-142.72				NIG 0119	22, 26, 30 34, 38	-129.39
			SRL 0259	23, 29,31 35, 39	-136.72				SUI 0140	22, 26, 30 34, 38	-141.96
									NMB 0025	25, 29, 33 37	-130.13

PFD Produced in Region 2 at a Point having

Longitude = 35° W Latitude = 8° S

Nominal orbital position - 13.0			Nominal orbital position - 7.0			Nominal orbital position - 1.0			Nominal orbital position + 5.0		
Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2
AGL 0295	23, 27, 31 35, 39	-129.57	ALB 0296	22, 26, 30 34, 38	-146.49	DDR 0261	21, 25, 29 33, 37	-145,17	AFS 0021	21, 25, 29 33, 37	-132.06
CAF 0258	24, 28, 32 34, 40	-130.81	SDN 0231	22, 26, 30 34, 38	-133.37	HNG 0106	22, 26, 30 34, 38	-145.07	CYP 0086	21, 25, 29 33, 37	-147.47
COG 0235	22, 26, 30, 34, 38	-134.83	SDN 0230	23, 27, 31 35, 39	-136.84	MWI 0308	24, 28, 32 36, 40	-142.67	DNK 0090	24	-135.20
ISR 0110	25, 29, 33 37	-145.02	SDN 0232	24, 28, 32 36, 40	-134.23	RHS 0135	22, 26, 30 34, 38	-136.51	FNL 0104	22, 26	-135.20
			YUG 0148	21, 25, 29 33, 37	-140.79				ISL 0050	23, 27, 31 35, 39	-140.47
			YUG 0149	23, 27, 31 35, 39	-140.79				LSO 0305	24, 28, 32 36, 40	-145.06

INTERNATIONAL TELECOMMUNICATION UNION

BROADCASTING SATELLITE CONFERENCE

(Geneva, 1977)

Document No. DT/52-E
9 February 1977
Original : English

Note by the Secretary-General

I have the honour to submit to the Conference the attached Note by the IFRB.

M. MILI

Secretary-General

ARCHIVES U.I.T. GENÈVE

Note by the IFRB

POWER FLUX-DENSITY PRODUCED IN THE TERRITORIES OF REGION 2 BY SATELLITES IN THE BROADCASTING-SATELLITE SERVICE IN REGIONS 1 AND 3

On the basis of the data provided by Working Group 5A2/3 and from the partial computer run of the night of 8/9 February and using the method of calculation outlined in Document No. DT/49, the IFRB have determined the power flux-densities produced in Region 2 from broadcasting satellites of Regions 1 and 3 using orbital positions from 37°W to 5°E and channels 1 to 17, (similar calculations will be made for channels 18 - 25 as soon as the necessary data is available).

The power flux-density at the most easterly point of Brazil (agreed to be the test point and taken as 35°W, 8°S in the calculations) is shown in the attached table for each case.

Annex : 1

ANNEX

PFD Produced in Region 2 at a Point having
Longitude = 35° W Latitude 8° S

Nominal orbit position - 37.0			Nominal orbit position - 31.0			Nominal orbit position - 25.0			Nominal orbit position - 19.0		
Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2
AND 0238	4, 8,12 16, 20	-143.75	AZR 0134	3,7, 11 15, 19	-140.72	ALG 0252	4, 8, 12 16, 20	-133.80	AUT 0016	4, 8, 12 16, 20	-143.67
GMB 0302	3, 7, 11 15,19	-137.17	CPV 0301	4, 8,12, 16, 20	-137.14	LBY 0280	1, 5, 9 13, 17	-138.64	D 0087	2, 6, 10 14, 18	-140.97
LIE 0253	3, 7, 11 15, 19	-143.73	G 0027	4, 8, 12 16, 20	-132.81	LBY 0321	3, 7, 11 15, 19	-138.75	DAH 0233	3, 7, 11 15, 19	-140.18
MLI 0328	2, 6, 10 14, 18	-132.28	GNP 0304	2, 6, 10 14, 18	-137.07				F 0093	1, 5, 9 13, 17	-138.67
SMR 0311	1, 5, 9, 13, 17	-143.70	IRL 0211	2, 6, 10 14, 18	-144.38				LUX 0114	3, 7, 11 15, 19	-145.56
GUI 0192	1, 5, 9, 13, 17	-132.54	LBR 0244	3, 7, 11 15	-136.91				ZAI 0322	4, 8,12 16, 20	-130.94
			POR 0133	3, 7, 11 15, 19	-142.35				ZAI 0323	2, 6,10 14, 18	-130.05

Nominal orbit position - 13.0			Nominal orbit position - 7.0			Nominal orbit position - 1.0			Nominal orbit position + 5.0		
Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2	Country symbol & IFRB No.	Channel Nos.	PFD Produced dBW/m^2
CME 0300	1, 5, 9, 13, 17	-141.12	EGY 0026	4, 8, 12 16, 20	-136,59	BOT 0297	2, 6, 10 14, 18	-134.49	DNK 0089	12, 16, 20	-143.77
GAB 0260	3, 7, 11 15, 19	-136.65				BUL 0020	4, 8, 12 16, 20	-144.97	FNL 0103	2, 6, 10	-138.17
MLT 0147	4, 8, 12 16	-146.26				MOZ 0307	4, 8, 12 16, 20	-135.37	GRC 0105	3, 7, 11 15, 20	-140.87
STP 0241	4, 8, 12 16, 20	-142.97				POL 0132	1, 5, 9 13, 17	-142.57	S 0138	4, 8	-138.94
TCD 0143	2, 6, 10 14, 18	-133.89				ROU 0136	2, 6, 10 14, 18	-143.17	TUR 0145	1, 5, 9 13, 17	-138.47
						SWZ 0313	1, 5, 9 13, 17	-145.51	NOR 0120	14, 18	-137.82
						TCH 0144	3, 7, 11 15, 19	-143.27			
						ZMB 0314	3, 7,11 15, 19	-134.29			

UNION INTERNATIONALE DES TELECOMMUNICATIONS

CONFERENCE DE RADIODIFFUSION PAR SATELLITE

(Genève, 1977)

Document N° DT/53-F/E/S
11 février 1977

COMMISSION 5

Note du Président de la Commission 5 (Planification)

Les corrections au projet de Plan, reçues par l'I.F.R.B. et mentionnées au cours de la séance tenue par la Commission 5 dans la matinée du vendredi, 11 février 1977, sont reproduites dans l'Annexe ci-jointe.

Les numéros des colonnes correspondent à ceux du projet de Plan (Document N° 265).

COMMITTEE 5

Note by the Chairman of Committee 5 (Planning)

The corrections to the draft Plan, received by the I.F.R.B. and to which reference was made in Committee 5 on Friday morning, 11 February 1977, are reproduced in the attached Annex.

The Column numbers are those of the draft Plan (Document No. 265).

COMISIÓN 5

Nota del Presidente de la Comisión 5 (Planificación)

Adjunto se accompañan las correcciones al proyecto de Plan, recibidas por la I.F.R.B. y a las que se hizo referencia en la Comisión 5 el viernes, 11 de febrero de 1977, por la mañana.

Los números de las columnas corresponden a los del proyecto de Plan (Documento N.° 265).

A. PETTI
Président
Commission 5 (Planification)

ARCHIVES U.I.T. GENÈVE

	1	2	3	4		5		6	7	8	
	ALG 0251			4E12	33N12	2.45	1.25	172			
	AUS 0004			121E48	24S54	3.60	1.90	054			
	AUS 0005			133E30	18S48	2.70	1.40	076			
	AUS 0006			135E24	30S18	2.00	1.40	044			
	AUS 0007			145E00	38S06						
	AUS 0008			145E54	21S30	2.90	2.00	120			
	AUS 0009			147E12	32S00	2.10	1.40	015			
	BUL 0020			25E00	43N00						
	CKH 0052			161W00	19S51						
	CKN 0053							030			
	CVA 0085			10E48	41N30	2.00	0.60	138			
	D 0087			9.66	49.90						
	DNK 0091	5°E		19W30	61N00	2.20	0.80	4.00			3
	ETH 0092						2.4				
	G 0027					1.84	0.72				
	GRC 0105			24E43	38N12			156			
	IND 0037							40			
	IND 0038							33			
	INS 0028			101E33	00N00	3.00	1.2	133			
	ISL 0050										3
	MRC 0209						1.47				
	NZL 0287			173E00	41S00						
	PAK 0283			74E42	33N54	1.34	1.13	160			
	PNG 0271	128		148.00	-6.10	2.8	2.05	155.0			
	SUI 0140			8E17	46N40			171			
	TUN 0150							153			
	URS 0059			36E04	47N05	3.70	1.43	153			
	URS 0068							164			
	URS 0081							168			
	ZAI 0322			22E25	00N00						

Points de contrôle (en degrés et dixièmes de degré)

Test points (in degrees and tenths)

Puntos de control (en grados y décimas de grado)

ARS	0003	5.	56.0 E	21.0 N						
ARS	0275	3.	39.0 E	21.0 N	4.	42.5 E	17.0 N	5.	47.5 E	17.0 N
AUS	0007	1.	141.0E	34.0S	2.	140.0E	37.3S			
AUS	0008	1.	139.3E	17.3S						
CHN	0159	6.	109.8E	21.6N						
DNK	0091	6.	6.2W	62.30N						
INS	0036	3.	128.0E	07.0 S	6.	131.0E	00.0S			
RRW	0310	3.	029.8E	02.5 S	4.	031.0 E	02.5 S			
SEN	0222	1.	16W5	16N0	2.	15W0	16N3			
		3.	12W7	14N8	4.	12W0	12N5			
		5.	16W3	12N7	6.	17W7	14N8			