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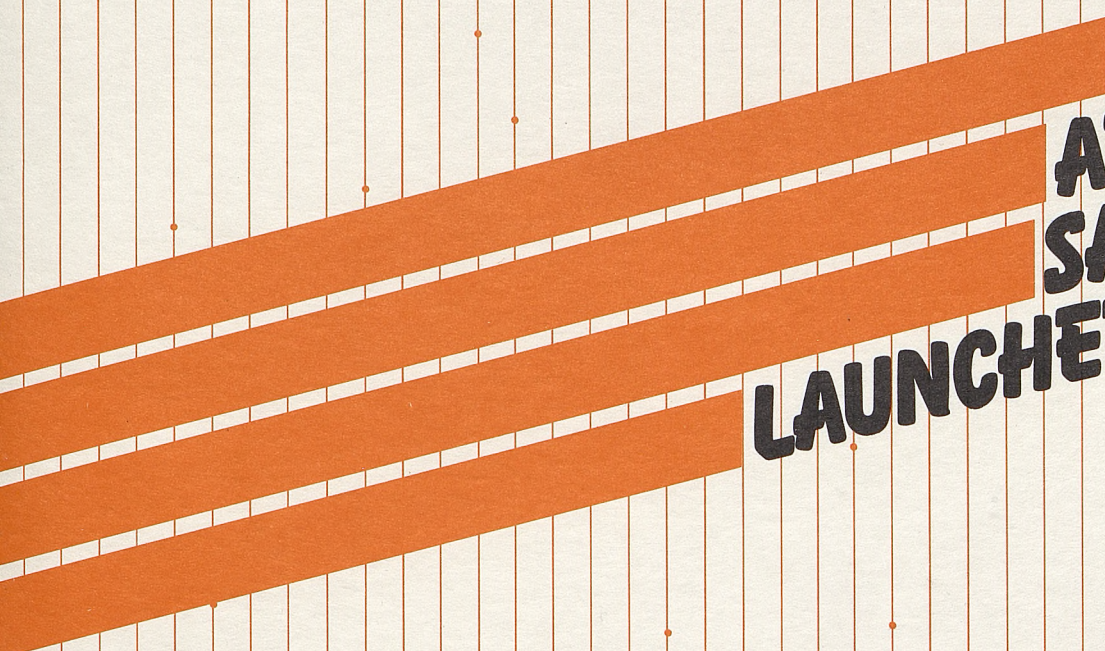
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(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلًا.

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**TABLE OF
ARTIFICIAL
SATELLITES
LAUNCHED IN 1980**

██████████ This list includes all artificial satellites launched in 1980.
██████████ It was prepared from information provided
██████████ by telecommunication administrations of ITU
██████████ Member countries, the Committee on Space Research
██████████ (COSPAR), national space research organizations, the
██████████ International Frequency Registration Board (IFRB),
██████████ ITU, and from details published in the specialized
██████████ press. The data concerning the orbit parameters are the
██████████ initial orbital data. Fragments or stages of rockets
██████████ left over from launching operations and placed in orbit
██████████ with the various spacecraft have not
██████████ been included.



Orbital Position	Space station				Frequency Bands								
					GHz	<1	<3	4	6	7	11	12	14
174	E	#	USA	INTELSAT5 PAC1			4	6		11		14	
175	E		USA	USGCSS PHASE2 W PAC						7			
175	E	#	USA	USGCSS PHASE3 W PAC						7			
176.5	E		USA	MARISAT-PAC	1	3	4	6					
179	E		USA/IT	INTELSAT4 PAC2			4	6					
179	E	*	USA/IT	INTELSAT4A PAC2			4	6					
179	E	#	USA	INTELSAT5 PAC2			4	6		11		14	
172	W	*	F/MRS	MARECS-B	1	3	4	6					
170	W	*	URS	GALS-4						7			
170	W	*	URS	LOUTCH P4						11		14	
170	W		URS	STATIONAR-10			4	6					
170	W	*	URS	VOLNA-7	1	3							
149	W		USA	ATS-1	1		4	6					
136	W		USA	US SATCOM-1			4	6					
135	W		USA	GOES WEST	1	3							
135	W	#	USA	USGCSS PHASE3 E PAC						7			
135	W		USA	USGCSS PHASE2 E PAC						7			
132	W	#	USA	US SATCOM-3			4	6					
128	W		USA	COMSTAR D1			4	6					
123.5	W		USA	WESTAR-2			4	6					
122	W		USA	USASAT-6A						11		14	
119	W		USA	US SATCOM-2			4	6					
116	W	*	CAN	ANIK-C2						11		14	
114	W		CAN	ANIK-A3			4	6					
112.5	W	*	CAN	ANIK-C1						11		14	
109	W		CAN	ANIK-A2			4	6					
109	W		CAN	ANIK-B1			4	6		11		14	
106	W		USA	USASAT-6B						11		14	
105	W		USA	ATS-5	1	3							
104	W	#	CAN	TELESAT D-1			4	6					
104	W		CAN	ANIK-A1			4	6					
102	W	#	MEX	SATMEX-1			4	6					
100	W		USA	FLTSATC E PAC	1					7			
99	W		USA	WESTAR-1			4	6					
95	W		USA	COMSTAR D2			4	6					
91	W	*	USA	WESTAR-3			4	6					
87	W		USA	COMSTAR D3			4	6					
86	W		USA	ATS-3	1								
75.4	W		CLM	SATCOL-2			4	6					
75	W		USA	GOES EAST	1	3							
75	W		CLM	SATCOL-1			4	6					
34.5	W	#	USA	INTELSAT MCS ATL E			3	4	6				
34.5	W		USA/IT	INTELSAT4 ATL5			4	6					
34.5	W		USA/IT	INTELSAT4A ATL4			4	6					
34.5	W	*	USA/IT	INTELSAT5 ATL4			4	6		11		14	
31	W	*	USA/IT	INTELSAT4A ATL4			4	6					

Orbital Position	Space station				Frequency Bands								
					GHz	<1	<3	4	6	7	11	12	14
29.5	W		USA/IT	INTELSAT4 ATL2				4	6				
29.5	W		USA/IT	INTELSAT4A ATL3				4	6				
29.5	W		USA/IT	INTELSAT5 ATL3				4	6		11	14	
27.5	W	*	USA/IT	INTELSAT4A ATL3				4	6				
27.5	W	*	USA/IT	INTELSAT5 ATL3				4	6		11	14	
27.5	W	*	USA/IT	INTELSAT MCS ATL B				4	6				
25	W	*	URS	GALS-1	3			4	6				
25	W	*	URS	LOUTCH P1						7			
25	W	*	URS	STATIONAR-8							11	14	
25	W	*	URS	VOLNA-1	1	3		4	6				
24.5	W	#	USA	INTELSAT MCS ATL D			3	4	6				
24.5	W		USA/IT	INTELSAT4A ATL1				4	6				
24.5	W		USA/IT	INTELSAT5 ATL1				4	6		11	14	
23	W		USA	FLTSATC ATL	1					7			
21.5	W	#	USA	INTELSAT MCS ATL C	3			4	6				
21.5	W	#	USA	INTELSAT5 ATL5				4	6		11	14	
21.5	W	*	USA/IT	INTELSAT4 ATL2				4	6				
21.5	W	*	USA/IT	INTELSAT4A ATL1				4	6				
19.5	W		USA/IT	INTELSAT4 ATL3				4	6				
19.5	W		USA/IT	INTELSAT4A ATL2				4	6				
18.5	W	*	USA/IT	INTELSAT4 ATL3				4	6				
18.5	W	*	USA/IT	INTELSAT4A ATL2				4	6				
18.5	W	*	USA/IT	INTELSAT5 ATL2				4	6		11	14	
18.5	W	*	USA/IT	INTELSAT MCS ATL A			3	4	6				
18	W	*	BEL	SATCOM III ATL						7			
18	W	*	BEL	SATCOM-III						7			
18	W		BEL	SATCOM-II						7			
15	W	*	F/MRS	MARECS-A	1	3	4	6					
15	W		I	SIRIO	1						11		
15	W		USA	MARISAT-ATL	1	3	4	6					
14	W		URS	LOUTCH-1							11	14	
14	W		URS/IK	STATIONAR-4				4	6				
14	W		URS	VOLNA-2			3						
13	W		USA	USGCSS PHASE2 ATL						7			
12	W	*	USA	USGCSS PHASE2 ATL						7			
12	W	#	USA	USGCSS PHASE2 ATL						7			
11.5	W		F/SYM	SYMPHONIE-2	1			4	6				
11.5	W		F/SYM	SYMPHONIE-3	1			4	6				
10	W	#	F	TELECOM-1A			3	4	6	7		12	14
8.5	W	#	URS	STATIONAR-11				4	6				
7	W	#	F	TELECOM-1B			3	4	6	7		12	14
4	W		USA/IT	INTELSAT4 ATL1				4	6				
1	W		USA/IT	INTELSAT4 ATL4				4	6				

* Under co-ordination RR639AJ

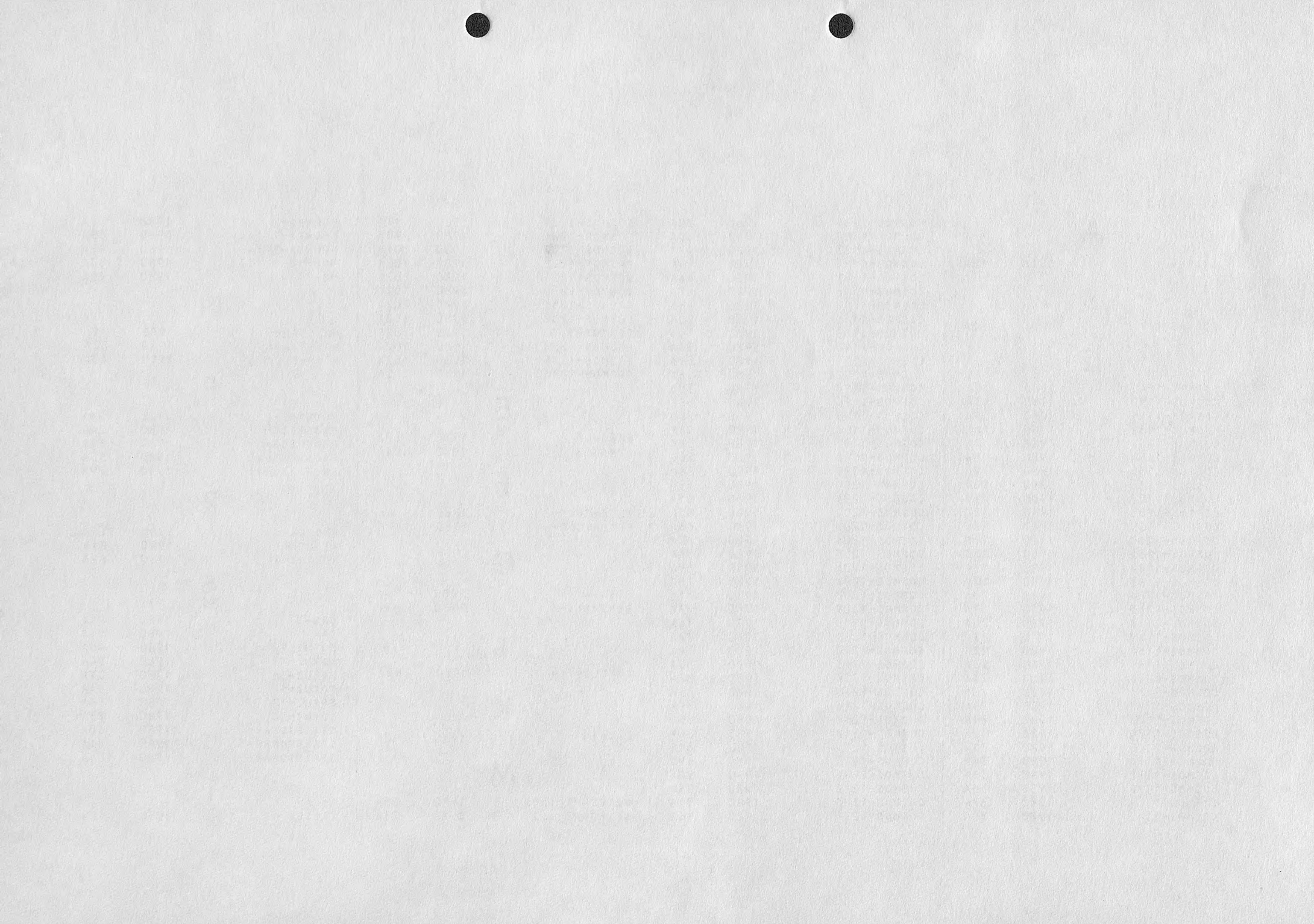
Advanced publication only under RR639AA

	A	
AYAME-2	1980	18A
	B	
BIG BIRD	1980	52A
	C	
COSMOS-1149	1980	1A
COSMOS-1150	1980	3A
COSMOS-1151	1980	5A
COSMOS-1152	1980	6A
COSMOS-1153	1980	7A
COSMOS-1154	1980	8A
COSMOS-1155	1980	9A
COSMOS-1156	1980	12A
COSMOS-1157	1980	12B
COSMOS-1158	1980	12C
COSMOS-1159	1980	12D
COSMOS-1160	1980	12E
COSMOS-1161	1980	12F
COSMOS-1162	1980	12G
COSMOS-1163	1980	12H
COSMOS-1164	1980	13A
COSMOS-1165	1980	17A
COSMOS-1166	1980	20A
COSMOS-1167	1980	21A
COSMOS-1168	1980	22A
COSMOS-1169	1980	23A
COSMOS-1170	1980	25A
COSMOS-1171	1980	26A
COSMOS-1172	1980	28A
COSMOS-1173	1980	29A
COSMOS-1174	1980	30A
COSMOS-1175	1980	31A
COSMOS-1176	1980	34A
COSMOS-1177	1980	35A
COSMOS-1178	1980	36A
COSMOS-1179	1980	37A
COSMOS-1180	1980	38A

COSMOS-1181	1980	39A
COSMOS-1182	1980	40A
COSMOS-1183	1980	42A
COSMOS-1184	1980	44A
COSMOS-1185	1980	46A
COSMOS-1186	1980	47A
COSMOS-1187	1980	48A
COSMOS-1188	1980	50A
COSMOS-1189	1980	54A
COSMOS-1190	1980	56A
COSMOS-1191	1980	57A
COSMOS-1192	1980	58A
COSMOS-1193	1980	58B
COSMOS-1194	1980	58C
COSMOS-1195	1980	58D
COSMOS-1196	1980	58E
COSMOS-1197	1980	58F
COSMOS-1198	1980	58G
COSMOS-1199	1980	58H
COSMOS-1200	1980	59A
COSMOS-1201	1980	61A
COSMOS-1202	1980	65A
COSMOS-1203	1980	66A
COSMOS-1204	1980	67A
COSMOS-1205	1980	68A
COSMOS-1206	1980	69A
COSMOS-1207	1980	70A
COSMOS-1208	1980	71A
COSMOS-1209	1980	72A
COSMOS-1210	1980	76A
COSMOS-1211	1980	77A
COSMOS-1212	1980	78A
COSMOS-1213	1980	80A
COSMOS-1214	1980	82A
COSMOS-1215	1980	83A
COSMOS-1216	1980	84A
COSMOS-1217	1980	85A
COSMOS-1218	1980	86A
COSMOS-1219	1980	88A
COSMOS-1220	1980	89A
COSMOS-1221	1980	90A
COSMOS-1222	1980	93A
COSMOS-1223	1980	95A
COSMOS-1224	1980	96A

COSMOS-1225	1980	97A
COSMOS-1226	1980	99A
COSMOS-1227	1980	101A
COSMOS-1228	1980	102A
COSMOS-1229	1980	102B
COSMOS-1230	1980	102C
COSMOS-1231	1980	102D
COSMOS-1232	1980	102E
COSMOS-1233	1980	102F
COSMOS-1234	1980	102G
COSMOS-1235	1980	102H
COSMOS-1236	1980	105A
	E	
EKRAN-5	1980	60A
EKRAN-6	1980	104A
	F	
FLTSATCOM-3	1980	4A
FLTSATCOM-4	1980	87A
	G	
GOES-4	1980	74A
GORIZONT-4	1980	49A
	I	
INTELSAT-V F2	1980	98A
	K	
KH-11	1980	10A
	M	
METEOR-1 (30)	1980	51A
METEOR-2 (6)	1980	73A

MOLNYA-1 (46)	1980	2A
MOLNYA-1 (47)	1980	53A
MOLNYA-1 (48)	1980	92A
MOLNYA-3 (13)	1980	63A
MS-T4	1980	15A
	N	
NAVSTAR-5	1980	11A
NAVSTAR-6	1980	32A
NOAA-B	1980	43A
	P	
PROGNOZ-8	1980	103A
PROGRESS- 8	1980	24A
PROGRESS- 9	1980	33A
PROGRESS-10	1980	55A
PROGRESS-11	1980	79A
	R	
RADUGA-5	1980	16A
RADUGA-6	1980	81A
ROHINI-1	1980	62A
	S	
SBS-1	1980	91A
SMM	1980	14A
SOYUZ-T2	1980	45A
SOYUZ-T3	1980	94A
SOYUZ-35	1980	27A
SOYUZ-36	1980	41A
SOYUZ-37	1980	64A
SOYUZ-38	1980	75A
STATSIONAR	1980	60A
STATSIONAR-3	1980	81A
STATSIONAR-T	1980	104A
	T	
TANSEI-4	1980	15A



<i>Code name Spacecraft description</i>	<i>International number</i>	<i>Country Organization Site of launching</i>	<i>Date</i>	<i>Perigee Apogee</i>	<i>Period Inclination</i>	<i>Frequencies Transmitter power</i>	<i>Observations</i>
Cosmos-1149	1980-1-A	USSR (PLE)	9 Jan.	208 km 414 km	90.4 min 70.29°		Photographic reconnaissance satellite. Recovered on 23 January 1980
46th Molnya-1 hermetically sealed cylinder with conical ends; mass: 1000 kg; 6 solar panels	1980-2-A	USSR (PLE)	11 Jan.	478 km 40 830 km	737 min 62.8°	800 MHz band 40 W (emission) 1000 MHz band (reception) 3400-4100 MHz (retransmission of television)	Apparatus for transmitting television programmes and multichannel radiocommunications
Cosmos-1150	1980-3-A	USSR (PLE)	14 Jan.	989 km 1028 km	105.0 min 83.0°		Navigation satellite
FLTSATCOM-3 3-axis stabilized hexagonal satellite; width: 2.44 m; overall height: 6.70 m; mass at launch: 1875 kg; mass in orbit: 1005 kg	1980-4-A	United States USDOD (ETR)	18 Jan.	35 745 km; 35 829 km in geostationary orbit at 23° W	1436.1 min 2.6°	240-400 MHz band (communications) 2252.5; 2262.5 MHz 2.4 W (telemetry)	Government communications satellite. Replaces <i>FLTSATCOM-2</i> which is being moved to 75° E. Nine 25 kHz channels and twelve 5 kHz channels for small mobile users. A 25 kHz broadcast channel and a 500 kHz channel
Cosmos-1151	1980-5-A	USSR (PLE)	23 Jan.	650 km 678 km	97.8 min 82.5°		Ocean monitoring satellite
Cosmos-1152	1980-6-A	USSR (PLE)	24 Jan.	181 km 370 km	89.7 min 67.1°		High-resolution, reconnaissance satellite. Recovered on 6 February 1980
Cosmos-1153	1980-7-A	USSR (PLE)	25 Jan.	983 km 1031 km	105 min 83°		Navigation satellite
Cosmos-1154	1980-8-A	USSR (PLE)	30 Jan.	634 km 671 km	97.3 min 81.3°		Electronic monitoring satellite
Cosmos-1155	1980-9-A	USSR (PLE)	7 Feb.	206 km 422 km	90.4 min 72.9°		Medium-resolution reconnaissance satellite. Recovered on 21 February 1980
KH-11	1980-10-A	United States USAF (WTR)	7 Feb.	220 km 498 km	91.7 min 97.0°		Digital imaging reconnaissance satellite

<i>Code name Spacecraft description</i>	<i>International number</i>	<i>Country Organization Site of launching</i>	<i>Date</i>	<i>Perigee Apogee</i>	<i>Period Inclination</i>	<i>Frequencies Transmitter power</i>	<i>Observations</i>
Navstar-5	1980-11-A	United States (WTR)	9 Feb.	20 095 km 20 165 km	715.9 min 63.7°		Global positioning system navigation satellite. Replaces <i>Navstar-1</i>
Cosmos-1156 to Cosmos-1163 mass: 40 kg each	1980-12-A to 1980-12-H	USSR (PLE)	12 Feb.	1450 km 1528 km	115.4 min 74.0°		Government communication satellites
Cosmos-1164	1980-13-A	USSR (PLE)	12 Feb.	220 km 640 km	92.9 min 62.8°		
SMM 3-axis stabilized satellite; width: 1.20 m; length: 4 m; mass: 2315 kg; 2 fixed solar arrays (3 kW); Ni-Cd batteries	1980-14-A	United States NASA (ETR)	14 Feb.	571.5 km 573.5 km	96.12 min 28.5°	2287.5 MHz (tracking and telemetry)	Solar Maximum Mission. Objectives: to measure solar radiation during the period of maximum solar activity. Carries gamma ray spectrometer, hard X-ray burst spectrometer, hard X-ray imaging spectrometer, ultraviolet spectrometer and polarimeter, X-ray polychrometer, coronagraph/polarimeter and solar constant monitoring package
Tansei-4 (MS-T4)	1980-15-A	Japan ISAS (KSC)	17 Feb.	517 km 672 km	96.5 min 38.7°	136.725 MHz (tracking) 400.45; 2280.5 MHz (telemetry)	Tests of new technology for future satellites and test of the new <i>M-3S</i> launcher
Raduga-5 3-axis stabilized satellite; mass: 5 tonnes; solar cells	1980-16-A	USSR (BAI)	20 Feb.	36 610 km geosynchronous orbit	24 h 38 min 0.4°	5.7-6.2 GHz (reception) 3.4-3.9 GHz (emission)	Carries apparatus for transmitting television programmes and multichannel radiocommunications
Cosmos-1165	1980-17-A	USSR (PLE)	21 Feb.	182 km 379 km	89.8 min 72.9°		High-resolution reconnaissance satellite. Recovered on 5 March 1980

Ayame-2 cylindrical satellite; diameter: 1 m; height: 1.50 m; mass: 260 kg	1980-18-A	Japan NSDA (TSC)	22 Feb.	206.9 km 35 512 km	625.8 min 24.6°	31.65 GHz 3.2 W 4.075; 4.080 GHz 4.7 W 3.940 GHz 3.5 W 136.112 MHz 2 or 8 W	Experimental telecommunication satellite. Was intended for geostationary orbit but contact was lost while still in transfer orbit
No name	1980-19-A to 1980-19-C	United States USN (WTR)	3 March	1053 km 1151 km	107.1 min 63.5°		Ocean surveillance satellite system. Three satellites
Cosmos-1166	1980-20-A	USSR (PLE)	4 March	208 km 406 km	90.3 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 18 March 1980
Cosmos-1167	1980-21-A	USSR (PLE)	14 March	438 km 457 km	93.3 min 65°		Ocean surveillance satellite
Cosmos-1168	1980-22-A	USSR (PLE)	17 March	981 km 1026 km	104.9 min 82.9°		Navigation satellite
Cosmos-1169	1980-23-A	USSR (PLE)	27 March	478 km 521 km	94.5 min 65.8°		Satellite intercept programme
Progress-8 modified <i>Soyuz</i> spacecraft without the descent section; mass at launch: 7 tonnes	1980-24-A	USSR (BAI)	27 March	192 km 266 km	88.8 min 51.6°		Expendable supply craft. Docked with <i>Salyut-6</i> on 29 March. Separated on 25 April and was deorbited over the Pacific Ocean on 26 April 1980
Cosmos-1170	1980-25-A	USSR (BAI)	1 April	181 km 386 km	89.9 min 70.4°		High-resolution photographic reconnaissance satellite. Recovered on 13 April 1980
Cosmos-1171	1980-26-A	USSR (PLE)	3 April	976 km 1017 km	105 min 65.8°		Satellite intercept programme. Target vehicle for <i>Cosmos-1174</i>
Soyuz-35 3-part spacecraft; 2 spherical habitable modules (orbital compartment and command module) connected in tandem to a cylindrical service module; diameter: 2.70 m; height: 7.10 m; mass: 6.7 tonnes; 2 solar arrays	1980-27-A	USSR (BAI)	9 April	276 km 315 km	90.3 min 51.6°		Two-man spacecraft. L. Popov, commander; V. Ryumin, flight engineer. Docked with <i>Salyut-6</i> on 10 April. Returned to Earth carrying <i>Soyuz-36</i> cosmonauts on 3 June 1980, landing some 440 km north-east of Baikonur Cosmodrome

Code name Spacecraft description	International number	Country Organization Site of launching	Date	Perigee Apogee	Period Inclination	Frequencies Transmitter power	Observations
Cosmos-1172	1980-28-A	USSR (PLE)	12 April	637 km 40 160 km	726 min 62.8°		Early warning satellite
Cosmos-1173	1980-29-A	USSR (BAI)	17 April	180 km 379 km	89.9 min 70.3°		High-resolution photographic reconnaissance satellite. Similar to <i>Cosmos-1170</i> . Recovered on 28 April 1980
Cosmos-1174	1980-30-A	USSR (BAI)	18 April	387 km 1035 km	98.6 min 65.8°		Satellite intercept programme. Interceptor vehicle for <i>Cosmos-1171</i> target vehicle. The test was a failure. <i>Cosmos-1174</i> was exploded in space on 20 April 1980
Cosmos-1175	1980-31-A	USSR (PLE)	18 April	317 km 485 km	92.3 min 62.5°		Satellite intercept programme. Interceptor vehicle em- ploying an optical-thermal guidance system. Decayed on 28 May 1980
Navstar-6	1980-32-A	United States (WTR)	26 April	19 622 km 20 231 km	707.6 min 62.9°		Global positioning system navigation satellite
Progress-9 modified <i>Soyuz</i> spacecraft without the descent section; mass at launch: 7 tonnes	1980-33-A	USSR (BAI)	27 April	192 km 275 km	88.9 min 51.6°		Expendable supply craft. Docked with <i>Salyut-6</i> on 29 April, undocked on 20 May and was made to re- enter the Earth's atmosphere on 22 May 1980
Cosmos-1176	1980-34-A	USSR	29 April	260 km 265 km	89.6 min 65.0°		Ocean surveillance satellite. Carries a nuclear reactor. Similar to <i>Cosmos-954</i>
Cosmos-1177	1980-35-A	USSR (PLE)	29 April	181 km 365 km	89.7 min 67.2°		High-resolution photographic reconnaissance satellite. Recovered on 12 June 1980
Cosmos-1178	1980-36-A	USSR (PLE)	7 May	207 km 417 km	90.4 min 72.9°		Reconnaissance satellite. Recovered on 22 May 1980
Cosmos-1179	1980-37-A	USSR (PLE)	14 May	310 km 1570 km	103.5 min 83.0°		Navigation satellite
Cosmos-1180	1980-38-A	USSR (PLE)	15 May	240 km 296 km	89.8 min 62.8°		Satellite for geophysical observations and measure- ments. Recovered on 25 May 1980

Cosmos-1181	1980-39-A	USSR	20 May	992 km 1020 km	105 min 82°		Navigation satellite
Cosmos-1182	1980-40-A	USSR (PLE)	23 May	221 km 278 km	89.2 min 82.3°		Medium-resolution photographic reconnaissance satellite. Recovered on 5 June 1980
Soyuz-36 3-part spacecraft; 2 spherical habitable modules (orbital compartment and command module) connected in tandem to a cylindrical service module; diameter: 2.70 m; height: 7.10 m; mass: 6.7 tonnes; 2 solar arrays	1980-41-A	USSR (BAI)	26 May	198 km 216 km	88.0 min 51.6°		Two-man spacecraft. V. Kubasov, commander; B. Farakas (Hungary), research cosmonaut. Docked with <i>Salyut-6</i> on 28 May. <i>Soyuz-36</i> was returned to Earth with <i>Soyuz-37</i> cosmonauts aboard on 31 July 1980
Cosmos-1183	1980-42-A	USSR	28 May	208 km 414 km	90.4 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 11 June 1980
NOAA-B	1980-43-A	United States NOAA (WTR)	29 May	273 km 1453 km	102.2 min 92.3°		Owing to malfunction of the launch vehicle, proper orbit was not attained and the spacecraft is considered inoperable
Cosmos-1184	1980-44-A	USSR (PLE)	4 June	621 km 662 km	97.4 min 81.2°		Electronic monitoring satellite
Soyuz-T2 solar batteries	1980-45-A	USSR (BAI)	5 June	267 km 316 km	90.25 min 51.6°		Two-man spacecraft. Y. Malishev and V. Aksenov, cosmonauts. Docked with accessories port of <i>Salyut-6</i> on 6 June. Recovered on 9 June 200 km south-east of Dzhezkazgan
Cosmos-1185	1980-46-A	USSR (PLE)	6 June	226 km 308 km	89.5 min 82.3°		Medium-resolution photographic reconnaissance satellite. Recovered on 20 June 1980
Cosmos-1186	1980-47-A	USSR (PLE)	6 June	473 km 519 km	94.5 min 74.0°		Electronic monitoring satellite
Cosmos-1187	1980-48-A	USSR (PLE)	12 June	210 km 332 km	72.9 min 89.6°		Medium-resolution photographic reconnaissance satellite. Recovered on 26 June 1980

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Gorizont-4 3-axis stabilized spacecraft	1980-49-A	USSR (BAI)	14 June	36 515 km	24 h 33 min 0.8°	3.4-3.9 GHz (emission) 5.7-6.2 GHz (reception)	Communication satellite for transmission of telegraph and telephone messages and for transmission of television programmes
Cosmos-1188	1980-50-A	USSR (PLE)	14 June	628 km 40 165 km	726 min 62.8°		Early warning satellite
30th Meteor-1 3-axis stabilized cylindrical satellite mass: 2200 kg; sun-oriented solar panels	1980-51-A	USSR CAHS (PLE)	18 June	589 km 678 km	97.3 min 98.0°		Meteorological satellite
Big Bird	1980-52-A	United States USAF (WTR)	18 June	165 km 254 km	88.5 min 96.5°		Reconnaissance satellite
No name	1980-52-C	United States	18 June	1325 km 1329 km	112.2 min 96.6°		
47th Molnya-1 hermetically-sealed cylinder with conical ends; mass: 1000 kg; 6 solar panels	1980-53-A	USSR (PLE)	21 June	658 km 40 707 km	738 min 62.5°	800 MHz band 40 W (emission) 1000 MHz band (reception) 3400-4100 MHz (retransmission of television)	Television and multichannel radiocommunications
Cosmos-1189	1980-54-A	USSR (PLE)	26 June	209 km 330 km	89.5 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 10 July 1980
Progress-10 modified <i>Soyuz</i> spacecraft without the descent section; mass at launch: 7 tonnes	1980-55-A	USSR	29 June	191 km 281 km	88.9 min 51.6°		Expendable supply craft. Docked with <i>Salyut-6</i> on 1 July and was made to re-enter the Earth's atmosphere on 19 July 1980

Cosmos-1190	1980-56-A	USSR (PLE)	1 July	792 km 829 km	100.8 min 74.0°		Electronic monitoring satellite
Cosmos-1191	1980-57-A	USSR (PLE)	2 July	646 km 40 165 km	726 min 62.8°		Early warning satellite
Cosmos-1192 to Cosmos-1199 mass: 40 kg each	1980-58-A to 1980-58-H	USSR (PLE)	9 July	1451 km 1522 km	115.3 min 74.0°		Government communication satellites
Cosmos-1200	1980-59-A	USSR (PLE)	9 July	209 km 332 km	89.5 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 23 July 1980
Ekran-5 (Statsionar) 3-axis stabilized satellite; mass: 5 tonnes; solar cells	1980-60-A	USSR (BAI)	14 July	34 474 km geostationary orbit	1420 min 0.36°	5.7-6.2 GHz (reception) 3.4-3.9 GHz (emission)	Television relay satellite
Cosmos-1201	1980-61-A	USSR (PLE)	15 July	220 km 274 km	89.1 min 82.3°		Natural resources satellite. Recovered on 28 July 1980
Rohini-1 mass: 35 kg	1980-62-A	India (SSC)	18 July				First satellite launched by Indian <i>SLV-3</i> solid propellant 4-stage rocket system
13th Molnya-3 3-axis stabilized satellite; mass: 1500 kg	1980-63-A	USSR (PLE)	18 July	467 km 40 815 km	736 min 62.8°	5.9-6.2 GHz (reception) 3.6-3.9 GHz (emission)	Television and multichannel radiocommunications
Soyuz-37 3-part spacecraft: 2 spherical habitable modules (orbital compartment and command module) connected in tandem to a cylindrical service module; diameter: 2.70 m; height: 7.10 m; mass: 6.7 tonnes; 2 solar arrays	1980-64-A	USSR (BAI)	23 July	263 km 312 km	90.0 min 51.6°		Two-man spacecraft: cosmonaut V. Gorbatko and cosmonaut-researcher Fam Tuan (Viet Nam). Docked with <i>Salyut-6</i> on 24 July. <i>Soyuz-37</i> cosmonauts returned to Earth aboard <i>Soyuz-36</i> on 31 July 1980. <i>Soyuz-37</i> spacecraft was returned to Earth with <i>Soyuz-35</i> cosmonauts Popov and Ryumin on 11 October 1980

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Cosmos-1202	1980-65-A	USSR (PLE)	25 July	209 km 333 km	89.6 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 7 August 1980
Cosmos-1203	1980-66-A	USSR (PLE)	31 July	227 km 303 km	89.5 min 82.3°		Recovered on 14 August 1980
Cosmos-1204	1980-67-A	USSR (AKY)	31 July	346 km 546 km	93.3 min 50.7°		
Cosmos-1205	1980-68-A	USSR (PLE)	12 Aug.	208 km 332 km	89.6 min 72.8°		Photographic reconnaissance satellite. Recovered on 26 August 1980
Cosmos-1206	1980-69-A	USSR (PLE)	15 Aug.	630 km 659 km	97.4 min 81.2°		Electronic monitoring satellite
Cosmos-1207	1980-70-A	USSR (PLE)	22 Aug.	218 km 282 km	89.2 min 82.3°		Film-return earth resources satellite. Recovered on 4 September 1980
Cosmos-1208	1980-71-A	USSR	26 Aug.	181 km 362 km	89.6 min 67.1°		Long-duration reconnaissance satellite. Recovered on 24 September 1980
Cosmos-1209	1980-72-A	USSR (PLE)	3 Sept.	222 km 306 km	89.4 min 82.3°		Earth resources satellite. Recovered on 17 September 1980
6th Meteor-2	1980-73-A	USSR CAHS (PLE)	9 Sept.	868 km 906 km	102.4 min 81.2°	137.3 MHz 5 W (APT)	Meteorological satellite. Scanning telephotometer and television-type scanning equipment (0.5 to 0.7 μm), infrared scanning radiometer (8 to 12 μm)
GOES-4 cylindrical spin-stabilized satellite; diameter: 1.90 m; height: 2.30 m; mass: 397 kg	1980-74-A	United States (ETR)	9 Sept.	34 264 km 49 830 km	1767 min 0.25° in geosynchronous orbit at 95° W	2209 MHz; 2214 MHz (telemetry)	Geostationary Operational Environmental Satellite. Carries a visible and infrared spin-scan radiometer (VISSR) to provide data on the vertical structures of temperature and moisture in the atmosphere

Soyuz-38 3-part spacecraft; 2 spherical habitable modules (orbital compartment and command module) connected in tandem to a cylindrical service module; diameter: 2.70 m; height: 7.10 m; mass: 6680 kg; 2 solar arrays	1980-75-A	USSR (BAI)	18 Sept.	199 km 273 km	88.9 min 51.6°		Two-man spacecraft: Y. V. Romanenko, flight commander; A. Tomayo Méndez (Cuba). Docked with <i>Salyut-6</i> on 19 September 1980 and returned to Earth with the same crew on 26 September 1980
Cosmos-1210	1980-76-A	USSR (PLE)	19 Sept.	195 km 268 km	88.8 min 82.3°		Photographic reconnaissance satellite. Recovered on 30 September 1980
Cosmos-1211	1980-77-A	USSR (PLE)	23 Sept.	215 km 261 km	89.1 min 82.4°		Photographic reconnaissance satellite. Recovered on 4 October 1980
Cosmos-1212	1980-78-A	USSR (PLE)	26 Sept.	216 km 275 km	89.1 min 82.3°		Earth resources satellite. Recovered on 9 October 1980
Progress-11 modified <i>Soyuz</i> spacecraft without the descent section; mass at launch: 7 tonnes	1980-79-A	USSR (BAI)	28 Sept.	193 km 270 km	88.8 min 51.6°		Cargo-spacecraft. Docked with the <i>Salyut-6/Soyuz-37</i> complex on 30 September 1980. Made to re-enter the Earth's atmosphere on 11 December 1980
Cosmos-1213	1980-80-A	USSR (PLE)	3 Oct.	207 km 343 km	89.6 min 72.8°		Photographic reconnaissance satellite. Recovered on 17 October 1980
Raduga-6 (Stasionar-3) 3-axis stabilized satellite; mass: 5 tonnes; solar cells	1980-81-A	USSR (BAI)	6 Oct.	36 000 km geostationary orbit	1444 min (24 h 04 min) 0.4°	5.7-6.2 GHz (reception) 3.4-3.9 GHz (emission)	Carries apparatus for transmitting television programmes and multichannel radiocommunications
Cosmos-1214	1980-82-A	USSR (PLE)	10 Oct.	181 km 368 km	89.7 min 67.2°		Photographic film recovery reconnaissance satellite. Recovered on 23 October 1980
Cosmos-1215	1980-83-A	USSR (PLE)	14 Oct.	499 km 553 km	95.1 min 74.0°		Electronic monitoring satellite
Cosmos-1216	1980-84-A	USSR (PLE)	16 Oct.	209 km 404 km	90.3 min 72.9°		Photographic film recovery reconnaissance satellite. Recovered on 30 October 1980

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Cosmos-1217	1980-85-A	USSR (PLE)	24 Oct.	642 km 40 165 km	726 min 62.8°		Early warning satellite
Cosmos-1218	1980-86-A	USSR (PLE)	30 Oct.	178 km 374 km	89.7 min 64.9°		High-resolution photographic reconnaissance satellite. Recovered on 12 December 1980
FLTSATCOM-4 3-axis stabilized hexagonal satellite; width: 2.44 m; overall height: 6.70 m; mass at launch: 1876 kg; mass in orbit: 1005 kg	1980-87-A	United States USN (ETR)	31 Oct.	35 033 km 36 237 km in geostationary orbit at 172° E	1428.4 min 2.5°	240-400 MHz band (communications) 2252.5; 2262.2 MHz 2.4 W (telemetry)	Government communication satellite providing 23 UHF communication channels and one SHF up-link channel. Fourth in a series of five satellites
Cosmos-1219	1980-88-A	USSR (PLE)	31 Oct.	205 km 353 km	89.7 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 13 November 1980
Cosmos-1220	1980-89-A	USSR (BAI)	4 Nov.	432 km 454 km	93.3 min 65.0°		Ocean surveillance satellite
Cosmos-1221	1980-90-A	USSR (PLE)	12 Nov.	207 km 424 km	90.5 min 72.9°		Medium-resolution photographic reconnaissance satellite
SBS-1 mass: 550 kg	1980-91-A	United States SBS (ETR)	15 Nov.	in geostationary orbit at 106° W		14-12 GHz band	United States domestic communication satellite. First of three all-digital business communications satellites. Transmits point-to-point voice, data, facsimile and telex messages. Ten transponders
48th Molnya-1 hermetically sealed cylinder with conical ends; mass: 1000 kg; 6 solar panels	1980-92-A	USSR (PLE)	16 Nov.	640 km 40 651 km	736 min 62.3°	800 MHz band 40 W (emission) 1000 MHz band (reception) 3400-4100 MHz (retransmission of television)	Television and multichannel radiocommunications

Cosmos-1222	1980-93-A	USSR (PLE)	21 Nov.	624 km 659 km	97.4 min 81.2°		Electronic monitoring satellite
Soyuz-T3	1980-94-A	USSR (BAI)	27 Nov.	253 km 271.5 km	89.6 min 51.6°		For the first time in nine years three cosmonauts were launched aboard a <i>Soyuz</i> : L. Kizim, flight commander; O. Makarov, flight engineer, G. Strekalov, research engineer. <i>Soyuz-T3</i> docked with <i>Salyut-6</i> on 28 November and the crew boarded <i>Salyut-6</i> on 29 November. Soyuz-T3 was returned to Earth with its crew on 10 December, landing in Kazakhstan
Cosmos-1223	1980-95-A	USSR (PLE)	27 Nov.	614 km 40 165 km	726 min 62.8°		Early warning satellite
Cosmos-1224	1980-96-A	USSR (PLE)	1 Dec.	209 km 403 km	90.3 min 72.9°		Medium-resolution photographic reconnaissance satellite. Recovered on 15 December 1980
Cosmos-1225	1980-97-A	USSR (PLE)	5 Dec.	967 km 1041 km	105.0 min 82.9°		Navigation satellite
Intelsat-V F2 3-axis stabilized satellite; height: 6.60 m; mass at launch: 1950 kg; 2 solar arrays (1.2 kW)	1980-98-A	International INTELSAT (ETR)	6 Dec.	in geostationary orbit at 335.5° E		2202.5 MHz 3.5 W 5764 MHz 1 W (telemetry) 4-6 GHz (communications)	INTELSAT commercial telecommunication satellite; 12 000 telephone channels and two colour television channels
Cosmos-1226	1980-99-A	USSR (PLE)	10 Dec.	982 km 1025 km	105.0 min 83.0°		Navigation satellite
No name	1980-100-A	United States USAF (WTR)	13 Dec.	250 km 39 127 km	63.8°		Satellite data systems spacecraft. Provides UHF communications and relays data and communications between satellite control facility earth stations
Cosmos-1227	1980-101-A	USSR (PLE)	16 Dec.	209 km 325 km	89.5 min 72.9°		Medium-resolution photographic reconnaissance satellite
Cosmos-1228 to Cosmos-1235 mass: 40 kg each	1980-102-A to 1980-102-H	USSR (PLE)	24 Dec.	1415 km 1491 km	114.6 min 74°		Government communication satellites

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Prognoz-8 pressurized central body; 4 solar panels	1980-103-A	USSR (BAI)	25 Dec.	550 km 199 000 km	95 h 23 min 65°		Automatic satellite to study influence of solar activity on Earth's magnetosphere. Experiments or equipment have been supplied by Czechoslovakia, Poland and Sweden
Ekran-6 (Statsionar-T)	1980-104-A	USSR (BAI)	26 Dec.	35 554 km 35 554 km geostationary orbit	1424 min 0.4°	5.7-6.2 GHz (reception) 3.4-3.9 GHz (emission)	Television relay satellite
Cosmos-1236	1980-105-A	USSR (PLE)	26 Dec.	180 km 388 km	89.8 min 67.1°		High-resolution photographic reconnaissance satellite

AKY = Aktubinsk-Kapustin Yar (URSS)
 BAI = Baikonur (USSR)
 CAHS = Central Administration of the
 Hydrometeorological Service (USSR)
 ETR = Eastern Test Range (United States)
 INTELSAT = International Telecommunications
 Satellite Organization
 ISAS = Institute of Space and Aeronautical
 Science, Tokyo University (Japan)

KSC = Kagoshima Space Centre (Japan)
 NASA = National Aeronautics and Space
 Administration (United States)
 NOAA = National Oceanic and Atmospheric
 Administration (United States)
 NSDA = National Space Development Agency
 (Japan)
 PLE = Plesetsk (USSR)

SBS = Satellite Business Systems
 (United States)
 SSC = Sriharikota Space Centre (India)
 TSC = Tanegashima Space Centre (Japan)
 USAF = United States Air Force
 USDOD = United States Department of Defense
 USN = United States Navy
 WTR = Western Test Range (United States)

Any complementary information or remarks concerning the contents or presentation of this table will be welcome. They should be addressed to: The Editor-in-Chief, Telecommunication Journal, International Telecommunication Union, Place des Nations, CH-1211 Genève 20 (Switzerland).

The following satellites have decayed since the preparation of the "Table of artificial satellites launched in 1979" published in April 1980

<i>satellite</i>	<i>international number</i>	<i>decay</i>	<i>satellite</i>	<i>international number</i>	<i>decay</i>
1st Molnya-1	1965-30-A	16 August 1979	Cosmos-661	1974-45-A	27 August 1980
OV1-12	1967-72-D	22 July 1980	Ariel-5	1974-77-A	14 March 1980
Cosmos-248	1968-90-A	26 February 1980	No name	1974-85-B	23 January 1980
Cosmos-373	1970-87-A	8 March 1980	Cosmos-698	1974-100-A	9 December 1980
Peole-1	1970-109-A	16 June 1980	Cosmos-707	1975-8-A	7 September 1980
Cosmos-387	1970-111-A	19 January 1980	Intercosmos-13	1975-22-A	2 September 1980
Cosmos-395	1971-13-A	6 April 1980	Cosmos-749	1975-62-A	26 September 1980
Solrad-10	1971-58-A	15 December 1979	Cosmos-787	1976-1-A	12 December 1980
Cosmos-437	1971-75-A	29 March 1980	Cosmos-812	1976-31-A	30 October 1980
Cosmos-460	1971-103-A	5 March 1980	Cosmos-845	1976-75-A	15 November 1980
Cosmos-479	1972-17-A	13 April 1980	Cosmos-870	1976-115-A	20 December 1980
Cosmos-500	1972-53-A	29 March 1980	Cosmos-880	1976-120-A	8 October 1979
Denpa (REXS)	1972-64-A	19 May 1980	Cosmos-899	1977-22-A	19 October 1980
Explorer-48	1972-91-A	20 August 1980	Cosmos-906	1977-31-A	23 March 1980
Cosmos-544	1973-3-A	15 June 1980	Cosmos-930	1977-67-A	12 May 1980
Cosmos-549	1973-10-A	29 June 1980	Intercosmos-17	1977-96-A	8 November 1980
Cosmos-582	1973-60-A	5 September 1980	Cosmos-960	1977-103-A	22 October 1980
24th Molyna-1	1973-61-A	5 December 1979	Prognoz-7	1978-101-A	22 October 1980
25th Molyna-1	1973-89-A	26 March 1979	Cosmos-1142	1979-92-A	4 November 1979
Cosmos-610	1973-93-A	15 September 1980	Magsat	1979-94-A	11 June 1980
Cosmos-631	1974-5-A	3 October 1980	Soyuz-T	1979-103-A	25 March 1980
Cosmos-655	1974-35-A	19 November 1980	Cosmos-1148	1979-106-A	13 January 1980



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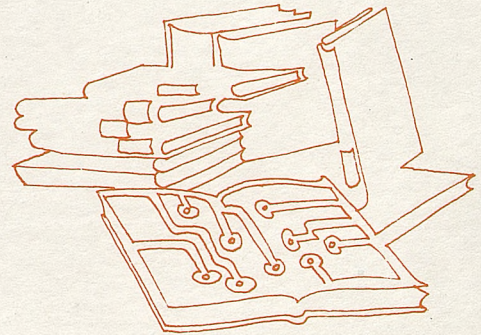
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