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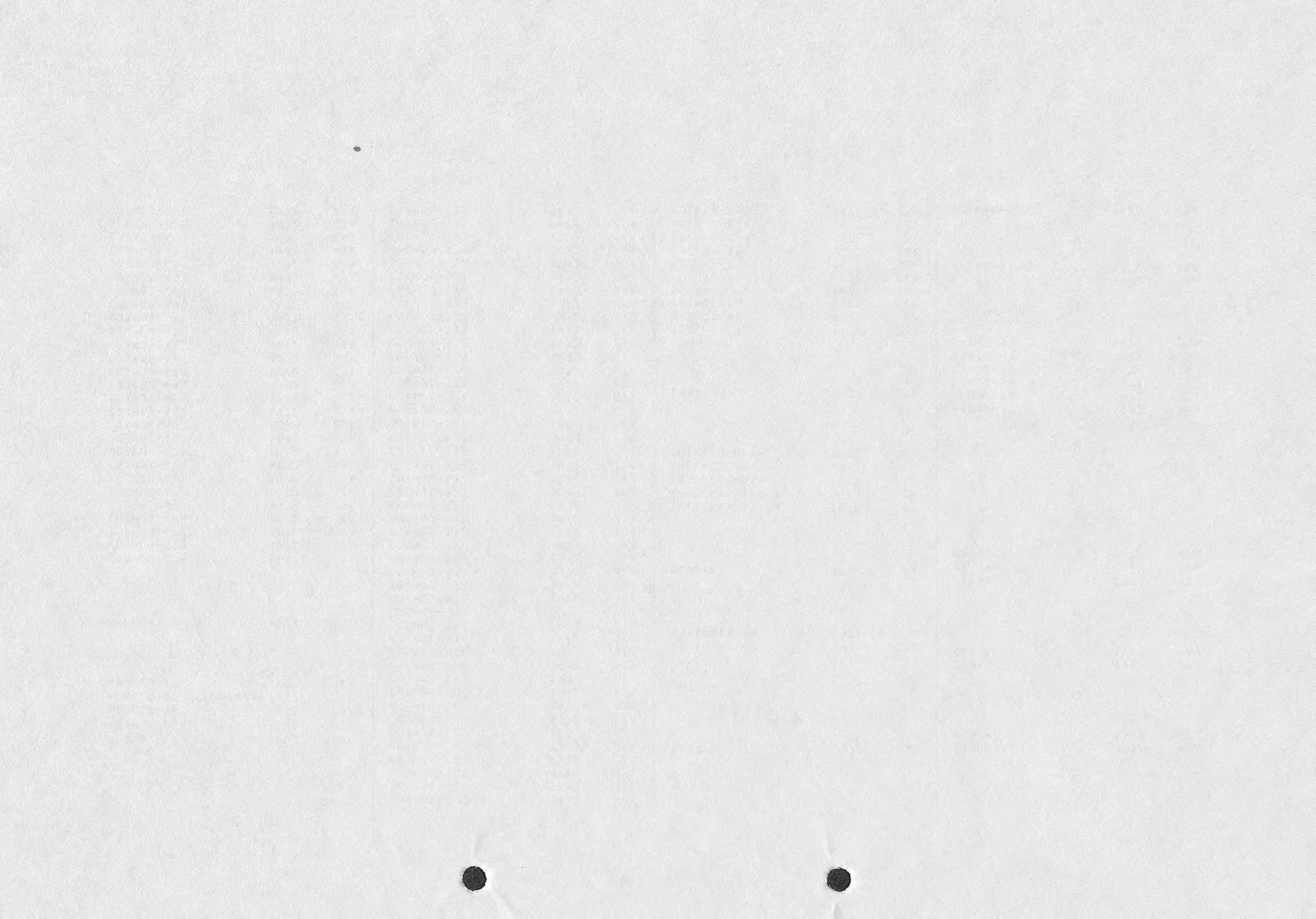
Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.

table of artificial satellites launched in 1972

This list includes all artificial satellites launched in 1972. It was prepared from information provided by telecommunication administrations, the Committee on Space Research (COSPAR), the Goddard Space Flight Center (GSFC) of the United States National Aeronautics and Space Administration (NASA), the Ministry of Communications of the USSR, the Centre national d'études spatiales (CNES), France,

the International Frequency Registration Board (IFRB), one of the four permanent organs of the 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.





<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-471	1972-1-A	USSR (BAI)	12 Jan.	202 km 323 km	89.5 min 65.0°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 25 January 1972
No name weight: 11 300 kg approximately	1972-2-A	United States USAF (WTR)	20 Jan.	163 km 310 km	89.0 min 97.0°		Reconnaissance/surveillance mission. Decayed on 29 February 1972
No name	1972-2-D	United States	20 Jan.	475 km 559 km	94.8 min 96.6°		Electronic intelligence monitor
Intelsat-IV F4 weight: 720 kg; cylindrical satellite; height: 5.28 m; diameter: 2.39 m; solar cells	1972-3-A	International INTELSAT (ETR)	23 Jan.	35 625 km 35 787 km	1432.0 min 0.7°	5950; 5990; 6030; 6070; 6110; 6150; 6200; 6240; 6280; 6320; 6360; 6400 MHz (reception) 3725; 3765; 3805; 3845; 3885; 3925; 3975; 4015; 4055; 4095; 4135; 4175 MHz (transmission)	Commercial telecommunication satellite. 3000 to 9000 telephone circuits or 12 television channels. In geostationary orbit above the Pacific Ocean at 174° E longitude
Cosmos-472	1972-4-A	USSR (PLE)	25 Jan.	207 km 1568 km	102.4 min 82.0°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 15 August 1972
Heos-A2 weight: 117 kg; overall height: 2.39 m; diameter: 1.33 m; solar cells	1972-5-A	International ESRO (WTR)	31 Jan.	359 km 238 199 km	7835.4 min 90.2°	136.68 MHz 5.9 W (telemetry) 148.25 MHz (command)	Carries 7 experiments to study high latitude magnetosphere and the region around the northern neutral point
Cosmos-473	1972-6-A	USSR (BAI)	3 Feb.	209 km 333 km	89.7 min 65.0°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements and radiotelemetry system. Decayed on 15 February 1972

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Luna-20	1972-7-A	USSR (BAI)	14 Feb.	barycentric orbit			Automatic lunar station. Main objectives were investigation of the moon and circumlunar space. Made soft landing on the moon on 21 February 1972. Brought back to earth on 25 February specimens of lunar rocks
Cosmos-474	1972-8-A	USSR (BAI)	16 Feb.	207 km 347 km	98.8 min 65.0°		Carried scientific apparatus, radio system for precise measurements of orbital elements and radiotelemetry system. Reconnaissance/surveillance satellite. Decayed on 29 February 1972
Cosmos-475	1972-9-A	USSR (PLE)	25 Feb.	977 km 1013 km	105.0 min 74.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Midas weight: 816 kg approximately	1972-10	United States USAF (ETR)	1 March	synchronous orbit			Missile Defense Alarm System
Cosmos-476	1972-11-A	USSR	1 March	618 km 651 km	97.2 min 81.2°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Pioneer-10 weight: 260 kg	1972-12-A	United States National Academy of Sciences (ETR)	3 March	heliocentric orbit		2110 MHz (up-link) 2292 MHz (down-link)	The first of two spin-stabilized, earth pointing spacecraft designed to provide information on the interplanetary medium, the asteroid belt, and the near-Jupiter environment
Cosmos-477	1972-13-A	USSR (PLE)	4 March	212 km 328 km	89.6 min 72.9°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 16 March 1972
TD-1A weight: 742 kg; solar cells	1972-14-A	International ESRO (WTR)	12 March	536 km 557 km	95.6 min 97.5°	136.050 MHz 1 W (tracking, telemetry) 137.740 MHz 5 W (telemetry on command)	Objective: to measure the ultraviolet spectrum of stellar objects, the charge spectrum of cosmic rays, gamma rays, solar X-rays and extraterrestrial X-rays. Multi-colour celestial scanning.

Cosmos-478	1972-15-A	USSR (PLE)	15 March	213 km 319 km	89.5 min 65.4°	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 28 March 1972
Samos-87	1972-16-A	United States (WTR)	17 March	129 km 416 km	89.9 min 111.0°	Photographic reconnaissance satellite. Decayed on 11 April 1972
Cosmos-479	1972-17-A	USSR (PLE)	22 March	517 km 549 km	95.2 min 74.0°	Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
No name	1972-18-A	United States USAF (WTR)	24 March	806 km 888 km	101.8 min 98.8°	Electronic intelligence monitoring satellite
Cosmos-480	1972-19-A	USSR (PLE)	25 March	1183 km 1212 km	109.2 min 83°	Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Military monitoring mission
Cosmos-481	1972-20-A	USSR (PLE)	25 March	279 km 540 km	92.4 min 71°	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Military monitoring mission. Decayed on 2 September 1972
Venera-8 weight: 1180 kg; cylindrical command module; spherical scientific capsule; 2 solar panels	1972-21-A	USSR (BAI)	27 March	heliocentric orbit		Automatic interplanetary station. Mission was to make a smooth descent in the atmosphere of Venus and to deposit a capsule of instruments on the surface. Mission was completed. Decayed on Venus on 22 July 1972
Meteor-11	1972-22-A	USSR (PLE)	30 March	878 km 903 km	102.6 min 81.2°	Carries meteorological apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Second satellite of the new Meteor series
Cosmos-482	1972-23-A	USSR (BAI)	31 March	210 km 9813 km	201.4 min 52.0°	Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Cosmos-483	1972-24-A	USSR (PLE)	3 April	212 km 345 km	89.8 min 72.9°	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 15 April 1972

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Molnya-1T	1972-25-A	USSR (BAI)	4 April	480 km 39 260 km	11 h 45 min 65.6°		Carries apparatus for transmitting television programmes and multi-channel radiocommunications, apparatus of the command measuring complex, orientation system, orbit correction system and power supplies
Sret-1 (MAS) weight: 15 kg; octahedral satellite; CdS and TeS solar cells	1972-25-B	France (BAI)	4 April	480 km 39 260 km	11 h 45 min 65.6°		French satellite launched by USSR at the same time as <i>Molnya-1T</i> . Objective: to study characteristics of different solar batteries for space operations
Cosmos-484	1972-26-A	USSR (PLE)	6 April	203 km 236 km	88.8 min 81.3°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 18 April 1972
Intercosmos-6 weight of payload: 1070 kg	1972-27-A	USSR	7 April	203 km 256 km	89.0 min 51.8°		Objectives: to study primary cosmic rays and the chemical composition and energy radiation of meteor particles. Co-operating countries were Hungarian People's Republic, Mongolia, Roumania, Czechoslovakia and USSR. Decayed on 11 April 1972
Cosmos-485	1972-28-A	USSR (PLE)	11 April	280 km 506 km	92.1 min 71°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 30 August 1972
Prognoz weight: 845 kg	1972-29-A	USSR (BAI)	14 April	950 km 200 000 km	97 h 65.0°	928.4 MHz	Interplanetary monitoring platform. Objectives: to study solar radiation and its influence on the interplanetary medium and the earth's magnetosphere
Cosmos-486	1972-30-A	USSR (PLE)	14 April	214 km 267 km	89.1 min 81.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Photographic observation satellite. Decayed on 27 April 1972

Apollo-16 weight: 44 676 kg; command module, service module, lunar module; diameter: 3.90 to 6.60 m; total height: 29 m	1972-31-A	United States (ETR)	16 April	selenocentric orbit			Twelve-day manned lunar mission. Commander: John W. Young; command module pilot: Thomas K. Mattingly; lunar module pilot: Charles M. Duke. Exploration of the region near the Descartes crater with the aid of a Lunar Roving Vehicle (LRV). Collection of 111 kg of lunar surface material. Command module splashed down in Pacific Ocean 1519 miles (2450 km) south of Honolulu on 28 April after a mission of 11 days, 1 h and 51 min
Apollo-16 sub-satellite weight: 36 kg; hexagonal spacecraft; length: 0.79 m; diameter: 0.36 m; solar cells and rechargeable battery	1972-31-D	United States	24 April	selenographic orbital elements 91.026 km 119 min 130.780 km 169.28°			The sub-satellite was released from <i>Apollo-16</i> while in lunar orbit. Carried 3 experiments: a magnetometer to determine strength and direction of interplanetary and earth magnetic fields in the lunar region; an S band transponder to detect variations in the lunar gravity field; and a charged particles detector to measure electron and proton flux. Impacted on the moon on 29 May 1972
No name	1972-32-A	United States (WTR)	19 April	154 km 277 km	88.9 min 81.4°		Reconnaissance/surveillance satellite. Decayed on 12 May 1972
Cosmos-487	1972-33-A	USSR (PLE)	21 April	278 km 531 km	92.3 min 71.0°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 24 September 1972
Cosmos-488	1972-34-A	USSR (PLE)	5 May	211 km 319 km	89.5 min 65.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 18 May 1972
Cosmos-489	1972-35-A	USSR (PLE)	6 May	980 km 1010 km	105.0 min 74.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Cosmos-490	1972-36-A	USSR (PLE)	18 May	202 km 339 km	89.9 min 65.4°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 29 May 1972
2nd Molnya-2	1972-37-A	USSR (PLE)	19 May	460 km 39 300 km	11 h 45 min 65.5°	centimetre waveband	Carries apparatus for transmitting television programmes and multichannel radiocommunications, apparatus for the command measuring complex, orientation system, orbit correction system and power supplies

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Cosmos-491	1972-38-A	USSR (BAI)	25 May	210 km 303 km	89.5 min 65°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 8 June 1972
No name	1972-39-A	United States	25 May	159 km 300 km	89.0 min 96.3°		Brought back to earth on 4 June 1972
Cosmos-492	1972-40-A	USSR	9 June	209 km 342 km	89.8 min 65°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 22 June 1972
Intelsat-IV F5 weight: 720 kg; cylindrical satellite; height: 5.28 m; diameter: 2.39 m; solar cells	1972-41-A	International	13 June	35 444 km 36 846 km	1454.4 min 0.6°	5950; 5990; 6030; 6070; 6110; 6150; 6200; 6240; 6280; 6320; 6360; 6400 MHz (reception) 3725; 3765; 3805; 3845; 3885; 3925; 3975; 4015; 4055; 4095; 4135; 4175 MHz (transmission)	INTELSAT commercial telecommunication satellite; 3000 to 9000 telephone circuits or 12 television channels. In geostationary orbit above the Indian Ocean at 61.4° E longitude.
Cosmos-493	1972-42-A	USSR	21 June	213 km 308 km	89.5 min 65°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 3 July 1972
Cosmos-494	1972-43-A	USSR (PLE)	23 June	791 km 829 km	100 min 74.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system.
Cosmos-495	1972-44-A	USSR	23 June	206 km 298 km	89.3 min 65.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system Decayed on 6 July 1972
Cosmos-496	1972-45-A	USSR (BAI)	26 June	195 km 342 km	89.6 min 51.6°	20.008 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 2 July 1972

Prognoz-2	1972-46-A	USSR (BAI)	29 June	550 km 200 000 km	97 h 65°	Carries scientific apparatus for research of radiations from the sun, solar wind, and magnetic fields in circum-terrestrial space, radio transmitter, radio system for precise measurements of orbital elements, and radio-telemetry system
Intercosmos-7	1972-47-A	USSR (AKY)	30 June	267 km 568 km	92.6 min 48.4°	Carried scientific apparatus. Joint mission by Czechoslovakia, USSR, and German Democratic Republic. Decayed on 5 October 1972
Cosmos-497	1972-48-A	USSR (PLE)	30 June	282 km 812 km	95.2 min 71°	Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Meteor-12	1972-49-A	USSR (PLE)	30 June	897 km 929 km	103.0 min 81.2°	Carries meteorological apparatus, radio system for precise measurements of orbital elements, and radio-telemetry system
Cosmos-498	1972-50-A	USSR (PLE)	5 July	282 km 511 km	92.1 min 71.0°	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Electronic intelligence monitoring satellite. Decayed on 25 November 1972
Cosmos-499	1972-51-A	USSR (BAI)	6 July	209 km 283 km	89.2 min 51.8°	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance satellite. Decayed on 17 July 1972
Samos-88 weight: approximately 12 tons	1972-52-A	United States USAF (WTR)	7 July	174 km 241 km	88.6 min 96.9°	Reconnaissance/surveillance mission. Decayed on 13 September 1972
No name	1972-52-C	United States	7 July	497 km 503 km	94.6 min 96.1°	
Cosmos-500	1972-53-A	USSR (PLE)	10 July	509 km 554 km	95.2 min 74.0°	Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Cosmos-501	1972-54-A	USSR (AKY)	12 July	222 km 2149 km	108.8 min 48.5°	Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system

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Cosmos-502	1972-55-A	USSR (PLE)	13 July	206 km 284 km	89.2 min 65.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 25 July 1972
Cosmos-503	1972-56-A	USSR (PLE)	19 July	208 km 304 km	89.4 min 65.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 1 August 1972
Cosmos-504 to Cosmos-511	1972-57-A to 1972-57-H	USSR (PLE)	20 July	1425 km 1540 km	115.2 min 74.0°		Eight satellites launched by one rocket. They carry scientific apparatus, radio systems for precise measurements of orbital elements and radiotelemetry systems
ERTS-1 weight: 949.9 kg	1972-58-A	United States National Academy of Sciences (WTR)	23 July	897 km 917 km	103.1 min 99.1°	137.860 MHz (tracking beacon) 2229.5; 2265.5 MHz 20 W (telemetry on command) 2287.5 MHz 1 W (telemetry on command)	Earth Resources Technology Satellite. Objectives: to obtain coverage of the United States and other major land masses with multispectral, high spatial resolution (60 m) images of solar radiation reflected from the earth's surface. These images will be used in agricultural, geological, geographical, hydrological and oceanographical research
Cosmos-512	1972-59-A	USSR (PLE)	28 July	207 km 294 km	89.3 min 65.4°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 9 August 1972
Cosmos-513	1972-60-A	USSR (BAI)	2 August	209 km 340 km	89.8 min 65.0°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 15 August 1972
Explorer-46 (MTS) weight: 200 kg; central hub 3.20 m long from which 4 panels extend giving an overall width of 7.02 m; solar cells	1972-61-A	United States NASA (WI)	13 Aug.	496 km 814 km	97.8 min 37.7°	136.320 MHz 0.5 W (tracking and telemetry on command) 136.650 MHz 0.075 W	Meteoroid Technology Satellite. Objectives: to measure the meteoroid penetration rates in a bumper-protected target and to obtain data on meteoroid velocity and flux distribution

Cosmos-514	1972-62-A	USSR	16 Aug.	959 km 999 km	104.4 min 83°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Cosmos-515	1972-63-A	USSR (PLE)	18 Aug.	205 km 300 km	89.3 min 72.9°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 31 August 1972
Denpa (REXS) weight: 75 kg; octagonal cylinder; diameter: 0.71 m; length: 0.68 m; solar cells and Ni-Cd battery	1972-64-A	Japan Institute of Space and Aeronautical Science (KSC)	19 Aug.	238 km 6322 km	157.5 min 31.0°	136.695 MHz 90 mW 400.500 MHz 45 mW (tracking and telemetry)	Radio Explorer Satellite. Payload includes ionospheric plasma probes, electromagnetic and plasma wave receivers, a cyclotron instability experiment, an electron flux analyzer and a fluxgate magnetometer
OAO-C (Copernicus) weight: 2150 kg; octagonal spacecraft with extendable solar panels	1972-65-A	United States (ETR)	21 Aug.	739 km 751 km	99.7 min 35.0°	136.440 MHz 0.16 W (tracking beacon) 136.260 MHz 2 W 400.550 MHz 10 W (telemetry)	Orbiting Astronomical Observatory. Carries a spectrometer to measure high-resolution spectra of the stars, galaxies, planets, nebulae, the sun, etc., in the ultraviolet region of the spectrum. Three small X-ray telescopes will study radiation in three passbands between 3 and 60 Å
Cosmos-516	1972-66-A	USSR (BAI)	21 Aug.	256 km 277 km	89.6 min 65.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Cosmos-517	1972-67-A	USSR (BAI)	30 Aug.	207 km 305 km	89.4 min 65.0°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance mission. Decayed on 11 September 1972
Samos-89	1972-68	United States (WTR)	1 Sept.	145 km 383 km	88.9 min 110°		Decayed on 30 September 1972
Triad-01-1X (Transit) powered by radioisotopic thermoelectric generator developing at least 30 W for up to 5 years	1972-69-A	United States (WTR)	2 Sept.	743 km 838 km	100.6 min 90.1°		Navigation satellite. Carries Discos system which allows very precise stabilization of the satellite's orbit

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Cosmos-518	1972-70-A	USSR (PLE)	15 Sept.	208 km 330 km	89.6 min 72.9°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance satellite. Payload recovered on 24 September 1972
Cosmos-519	1972-71-A	USSR (BAI)	16 Sept.	210 km 343 km	89.8 min 71.3°		Carried scientific apparatus, radio system for precise measurements of orbital elements and radiotelemetry system. Reconnaissance/surveillance satellite. Payload recovered on 26 September 1972
Cosmos-520	1972-72-A	USSR	19 Sept.	652 km 39 319 km	710 min 62.8°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Explorer-47 (IMP-7) weight: 390 kg; 16-sided drum-shaped spacecraft; diameter: 1.35 m; height: 1.57 m; solar cells and chemical battery	1972-73-A	United States NASA (ETR)	23 Sept.	201 599 km 235 639 km	17 702 min (about 12½ days) 17.2°	137.92 MHz 12 W 136.890 MHz 8 W (telemetry) 148.98 MHz (command receivers)	Interplanetary Monitoring Platform. Objectives: to continue the study of the interplanetary and outer magnetospheric regions
Cosmos-521	1972-74-A	USSR	29 Sept.	973 km 1030 km	105 min 65.8°		Carries scientific apparatus for precise measurements of orbital elements, and radiotelemetry system. Space interceptor test vehicle
Molnya-2C	1972-75-A	USSR	30 Sept.	480 km 39 200 km	703 min (11 h 43 min) 65.3°	5.7-6.0 MHz (reception) 3.4-3.9 MHz (transmission)	Carries apparatus for transmitting television programmes and multichannel radiocommunications, apparatus of the command measuring complex, orientation system, orbit correction system and power supplies
Radcat	1972-76-A	United States USAF (WTR)	2 Oct.	730 km 740 km	99.5 min 98.5°		Radar Calibration Target
No name 12-sided spin-stabilized satellite	1972-76-B	United States (WTR)	2 Oct.	730 km 740 km	99.5 min 98.5°		Carries 5 payloads: γ -ray spectrometer, extreme ultraviolet radiation payload, two low-altitude particle payloads and a thermocontrol coating test

Cosmos-522	1972-77-A	USSR (PLE)	4 Oct.	214 km 342 km	89.8 min 72.9°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Decayed on 17 October 1972
Cosmos-523	1972-78-A	USSR (PLE)	5 Oct.	283 km 507 km	92.0 min 71.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system
Samos-90 weight: 12 000 kg approximately	1972-79	United States USAF (WTR)	10 Oct.	159 km 268 km	88.7 min 96.4°		
Cosmos-524	1972-80-A	USSR (PLE)	11 Oct.	277 km 537 km	92.3 min 71°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system
21st Molnya-1	1972-81-A	USSR	14 Oct.	480 km 39 300 km	705 min (11 h 45 min) 65.3°		Carries apparatus for transmitting television programmes and multichannel radiocommunications, apparatus for the command measuring complex, orientation system, orbit correction system and power supplies
Noaa-2 (Itos-D) weight: 409 kg	1972-82-A	United States (WTR)	15 Oct.	1448 km 1453 km	114.9 min 101.8°	136.770 MHz 250 mW (tracking and telemetry) 137.500; 137.620; 1697.500 MHz 5 W (telemetry on command)	First in a series of reconfigured <i>Itos</i> satellites. Primary objectives are to provide global daytime and nighttime direct readout cloud cover data. Unlike earlier <i>Itos</i> satellites, which employed video systems (APT, AVCS), <i>Noaa-2</i> relies entirely on scanning radiometers for imagery
Oscar-6 weight: 18.5 kg; solar cells and battery	1972-82-B	International AMSAT (WTR)	15 Oct.	1443 km 1452 km	114.95 min 101.7°	2 to 10 m linear translator with 100 kHz bandwidth. Input frequency centered on 145.95 MHz; output frequency centered on 29.5 MHz at 1 W maximum; also transmits on 435.1 MHz, 400 mW	Orbital Satellite Carrying Amateur Radio. Provided by an international group of amateurs (Australia, Fed. Rep. of Germany, United States). Objectives: to conduct an experimental programme of multiple access communications using a large number of ham radio stations
Cosmos-525	1972-83-A	USSR (PLE)	18 Oct.	208 km 292 km	89.3 min 65.4°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Decayed on 29 October 1972
Cosmos-526	1972-84-A	USSR (PLE)	25 Oct.	282 km 511 km	92.0 min 71.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system

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Meteor-13	1972-85-A	USSR (PLE)	27 Oct.	893 km 904 km	102.6 min 81.2°		Carries meteorological apparatus, radio system for precise measurements of orbital elements, and radio-telemetry system
Cosmos-527	1972-86-A	USSR (PLE)	31 Oct.	214 km 330 km	89.7 min 65.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Reconnaissance/surveillance satellite. Decayed on 13 November 1972
Cosmos-528 to Cosmos-535	1972-87-A to 1972-87-H	USSR (PLE)	1 Nov.	1375 km 1495 km	114.0 min 74.0°		Carry scientific apparatus, radio systems for precise measurements of orbital elements, and radiotelemetry systems
Cosmos-536	1972-88-A	USSR	3 Nov.	514 km 555 km	95.2 min 74.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
No name	1972-89	United States USAF (WTR)	9 Nov.	812 km 873 km	101.7 min 98.6°		
Anik weight: 270 kg; diameter: 1.80 m; height: 3.30 m; solar cells and battery	1972-90-A	Canada Telesat (ETR)	10 Nov.	synchronous orbit		6 GHz band (up-link) 4 GHz band (down-link)	Synchronous telecommunication satellite for Canadian internal communications. The satellite can accommodate up to 10 colour television channels or 9600 telephone circuits
Explorer-48 (SAS-B) weight: 186 kg; spin-stabilized cylindrical spacecraft; diameter: 0.55 m; height: 1.23 m; 4 solar arrays and rechargeable Ni-Cd batteries	1972-91-A	United States (SM)	15 Nov.	443 km 632 km	95.4 min 1.9°	136.68 MHz 0.25 W (real-time) 1.5 W (playback mode) (telemetry PCM/PM VHF transmitter at 1000 bit/s and tracking)	Second of a series of small spacecraft whose objectives are to survey the celestial sphere and seek X-ray, γ ray, UV and other radiation sources
Esro-4 weight: 115 kg; cylindrical spin-stabilized spacecraft; length: 0.90 m; diameter: 0.762 m; solar cells and rechargeable batteries	1972-92-A	International ESRO (WTR)	22 Nov.	240 km 1170 km	98.8 min 91.0°	137.200 MHz 0.3 W 137.200 MHz 2.8 W (PCM/PM telemetry real-time at 640 bit/s tape-recorder playback and high-speed telemetry 10 240 bit/s)	Objectives: to investigate neutral particles and ion concentrations in the ionosphere and near magnetosphere, to detect auroral particles and to monitor solar particles in order to discover the mechanism by which they penetrate and diffuse in the magnetosphere

Cosmos-537	1972-93-A	USSR (BAI)	25 Nov.	207 km 324 km	89.6 min 65.0°	19.995 MHz	Carried scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system. Photographic reconnaissance/surveillance mission. Decayed on 7 December 1972
Intercosmos-8	1972-94-A	USSR (PLE)	30 Nov.	274 km 679 km	93.2 min 71.0°		Objectives: to study upper atmosphere and ionosphere. Carries apparatus provided by Bulgaria, Czechoslovakia, German Democratic Republic and USSR
22nd Molnya-1	1972-95-A	USSR (BAI)	2 Dec.	500 km 39 100 km	703 min 65.0°	800 MHz band (transmission) 1000 MHz band (reception) 3400-4100 MHz (television retransmission)	Carries apparatus for transmitting television programmes and multichannel radio communications, apparatus of the command measuring complex, orientation system, orbit correction system and power supplies
Apollo-17 weight: 44 676 kg; command module, lunar module, service module; diameter: 3.90 to 6.60 m; total length: 29 m	1972-96-A	United States NASA (ETR)	7 Dec.	barycentric orbit		5765 MHz 40 W (radar tracking beacon) 2272.5 MHz 20 W (data transmission from command module) 2282.5 MHz 20 W (data transmission from lunar module)	Sixth and final manned lunar mission of the <i>Apollo</i> programme. Commander: Eugene A. Cernan; command module pilot: Ronald E. Evans; lunar module pilot: Harrison H. Schmitt. Exploration of Taurus-Littrow area of the moon with the aid of a Lunar Roving Vehicle. Lunar surface experiments package was deployed and geological samples gathered. Command module splashed down in the Pacific Ocean some 650 km south-east of Samoa on 19 December 1972
Nimbus-5 weight: 681 kg; "butterfly shaped" spacecraft; base diameter: 1.50 m; height: 3.70 m	1972-97-A	United States (WTR)	11 Dec.	1089 km 1101 km	107.2 min 99.9°	136.500 MHz 0.5 W (tracking and telemetry) 1702.5; 2208.5 MHz 4 W (telemetry on command)	Designed to serve as a stabilized earth-oriented platform for the testing of systems for sensing and collecting meteorological and geological data on a global scale
4th Molnya-2	1972-98-A	USSR (PLE)	12 Dec.	470 km 39 300 km	705 min 65.3°		Carries apparatus for transmitting television programmes and multichannel radio communications, apparatus for the command measuring complex, orientation system, orbit correction system and power supplies

Code name Spacecraft description	International number	Country Organization Site of launching	Date	Perigee Apogee	Period Inclination	Frequencies Transmitter power	Observations
Cosmos-538	1972-99-A	USSR (PLE)	14 Dec.	212 km 305 km	89.4 min 65.4°		Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite. Decayed on 27 December 1972
Aeros weight: 127 kg; cylindrical spin-stabilized; satellite; diameter: 0.914 m; height: 0.71 m; solar cells; Ag-Zn and Ni-Cd batteries	1972-100-A	Fed. Rep. of Germany/ United States Federal German Ministry for Education and Science/ NASA (WTR)	16 Dec.	218 km 864 km	95.5 min 96.9°	137.290 MHz 115 mW (real-time telemetry and tracking) 137.390 MHz 1.5 W (playback telemetry)	Aeronomy satellite: objectives: to study state and behaviour of the upper atmosphere and ionospheric F region, especially with regard to the influence of solar ultraviolet radiation
BMEWS I-6	1972-101	United States USAF (ETR)	20 Dec.	synchronous orbit over Pacific 10°			Ballistic Missile Early Warning System. Experimental payload
Cosmos-539	1972-102-A	USSR (PLE)	21 Dec.	1353 km 1392 km	113 min 74°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radiotelemetry system
Samos-91	1972-103-A	United States USAF (WTR)	21 Dec.	140 km 391 km	89.8 min 110.4°		Reconnaissance/surveillance mission
Cosmos-540	1972-104-A	USSR (PLE)	26 Dec.	779 km 823 km	100.8 min 74.0°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system
Cosmos-541	1972-105-A	USSR (PLE)	27 Dec.	242 km 371 km	90.3 min 81.4°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system
Cosmos-542	1972-106-A	USSR (PLE)	28 Dec.	554 km 653 km	96.4 min 81.2°		Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system

AKY = Aktubinsk-Kapustin Yar (USSR)
 AMSAT = Radio Amateur Satellite Corporation
 (United States)
 BAI = Baikonur (USSR)
 ESRO = European Space Research Organization
 ETR = Eastern Test Range (United States)

INTELSAT = International Telecommunications
 Satellite Organization
 KSC = Kagoshima Space Centre (Japan)
 NASA = National Aeronautics and Space
 Administration (United States)
 PLE = Plesetsk (USSR)

SM = San Marco platform (Italy/Kenya)
 USAF = United States Air Force
 WI = Wallops Islands (United States)
 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: Public Relations Division, International Telecommunication Union, Place des Nations, 1211 Geneva 20 (Switzerland).

The following satellites have decayed since the publication, in the April 1972 issue of the "Telecommunication Journal", of the "Table of Artificial Satellites Launched in 1971"

Satellite	International number	Decay	Satellite	International number	Decay
OV1-86	1967-72-A	22 February 1972	Cosmos-453	1971-90-A	19 March 1972
OGO-4	1967-73-A	16 August 1972	Cosmos-458	1971-101-A	20 April 1972
OV1-18	1969-25-B	27 August 1972	Intercosmos-5	1971-104-A	7 April 1972
Explorer-41	1969-53-A	23 December 1972	Cosmos-467	1971-113-A	18 April 1972
Cosmos-378	1970-97-A	17 August 1972	Cosmos-470	1971-118-A	6 January 1972
Cosmos-440	1971-79-A	29 October 1972			

