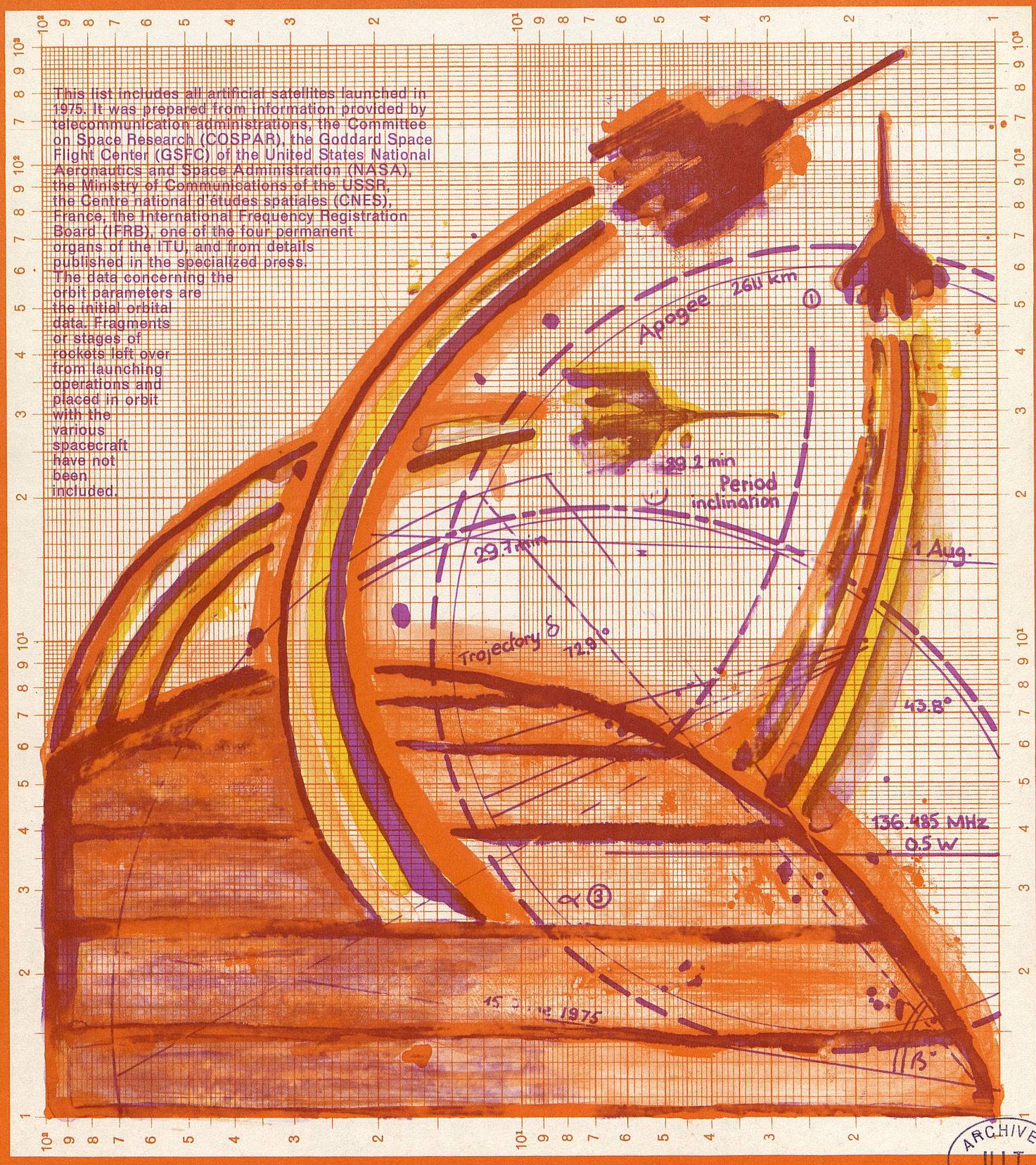
# Table of artificial satellites launched in 1975

This list includes all artificial satellites launched in 1975. 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.



## A

| | | |
|---|---|---|
| ANIK-3 | 1975 | 38A |
| APOLLO (ASTP) | 1975 | 66A |
| ARYABHAT | 1975 | 33A |
| ATMOSPHERE EXPL-E | 1975 | 107A |
| AURA | 1975 | 92A |

## B

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|---|---|---|
| BIG BIRD-10 | 1975 | 51A |
| BIG BIRD-11 | 1975 | 114A |
| BIOSPUTNIK | 1975 | 110A |

## C

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|---|---|---|
| CASTOR | 1975 | 39B |
| COS-B | 1975 | 72A |
| COSMOS-702 | 1975 | 2A |
| COSMOS-703 | 1975 | 3A |
| COSMOS-704 | 1975 | 5A |
| COSMOS-705 | 1975 | 6A |
| COSMOS-706 | 1975 | 7A |
| COSMOS-707 | 1975 | 8A |
| COSMOS-708 | 1975 | 12A |
| COSMOS-709 | 1975 | 13A |
| COSMOS-710 | 1975 | 15A |
| COSMOS-711 | 1975 | 16A |
| COSMOS-712 | 1975 | 16B |
| COSMOS-713 | 1975 | 16C |
| COSMOS-714 | 1975 | 16D |
| COSMOS-715 | 1975 | 16E |
| COSMOS-716 | 1975 | 16F |
| COSMOS-717 | 1975 | 16G |
| COSMOS-718 | 1975 | 16H |
| COSMOS-719 | 1975 | 18A |
| COSMOS-720 | 1975 | 19A |
| COSMOS-721 | 1975 | 20A |
| COSMOS-722 | 1975 | 21A |
| COSMOS-723 | 1975 | 24A |
| COSMOS-724 | 1975 | 25A |
| COSMOS-725 | 1975 | 26A |
| COSMOS-726 | 1975 | 28A |
| COSMOS-727 | 1975 | 30A |
| COSMOS-728 | 1975 | 31A |
| COSMOS-729 | 1975 | 34A |
| COSMOS-730 | 1975 | 35A |
| COSMOS-731 | 1975 | 41A |
| COSMOS-732 | 1975 | 45A |
| COSMOS-733 | 1975 | 45B |
| COSMOS-734 | 1975 | 45C |
| COSMOS-735 | 1975 | 45D |
| COSMOS-736 | 1975 | 45E |
| COSMOS-737 | 1975 | 45F |
| COSMOS-738 | 1975 | 45G |
| COSMOS-739 | 1975 | 45H |
| COSMOS-740 | 1975 | 46A |
| COSMOS-741 | 1975 | 47A |
| COSMOS-742 | 1975 | 48A |
| COSMOS-743 | 1975 | 53A |
| COSMOS-744 | 1975 | 56A |
| COSMOS-745 | 1975 | 58A |
| COSMOS-746 | 1975 | 59A |
| COSMOS-747 | 1975 | 60A |
| COSMOS-748 | 1975 | 61A |
| COSMOS-749 | 1975 | 62A |
| COSMOS-750 | 1975 | 67A |
| COSMOS-751 | 1975 | 68A |
| COSMOS-752 | 1975 | 69A |
| COSMOS-753 | 1975 | 71A |
| COSMOS-754 | 1975 | 73A |
| COSMOS-755 | 1975 | 74A |
| COSMOS-756 | 1975 | 76A |
| COSMOS-757 | 1975 | 78A |
| COSMOS-758 | 1975 | 80A |
| COSMOS-759 | 1975 | 84A |
| COSMOS-760 | 1975 | 85A |
| COSMOS-761 | 1975 | 86A |
| COSMOS-762 | 1975 | 86B |
| COSMOS-763 | 1975 | 86C |
| COSMOS-764 | 1975 | 86D |
| COSMOS-765 | 1975 | 86E |
| COSMOS-766 | 1975 | 86F |
| COSMOS-767 | 1975 | 86G |
| COSMOS-768 | 1975 | 86H |
| COSMOS-769 | 1975 | 88A |
| COSMOS-770 | 1975 | 89A |
| COSMOS-771 | 1975 | 90A |
| COSMOS-772 | 1975 | 93A |
| COSMOS-773 | 1975 | 94A |
| COSMOS-774 | 1975 | 95A |
| COSMOS-775 | 1975 | 97A |
| COSMOS-776 | 1975 | 101A |
| COSMOS-777 | 1975 | 102A |
| COSMOS-778 | 1975 | 103A |
| COSMOS-779 | 1975 | 104A |
| COSMOS-780 | 1975 | 108A |
| COSMOS-781 | 1975 | 109A |
| COSMOS-782 | 1975 | 110A |
| COSMOS-783 | 1975 | 112A |
| COSMOS-784 | 1975 | 113A |
| COSMOS-785 | 1975 | 116A |
| COSMOS-786 | 1975 | 120A |

## D

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|---|---|---|
| D-2B | 1975 | 92A |
| D-5A | 1975 | 39A |
| D-5B | 1975 | 39B |
| DSCS-11 5 | 1975 | 40A |
| DSCS-11 6 | 1975 | 40B |

## E

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|---|---|---|
| ERTS-2 | 1975 | 4A |
| ETS-1 | 1975 | 82A |
| EXPLORER-53 | 1975 | 37A |
| EXPLORER-54 | 1975 | 96A |
| EXPLORER-55 | 1975 | 107A |

## G

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|---|---|---|
| GEOS-3 | 1975 | 27A |
| GOES-1 | 1975 | 100A |

## I

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|---|---|---|
| INTELSAT-1V A F1 | 1975 | 91A |
| INTELSAT-1V F1 | 1975 | 42A |
| INTERCOSMOS-13 | 1975 | 22A |
| INTERCOSMOS-14 | 1975 | 115A |

## K

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|---|---|---|
| KIKU | 1975 | 82A |

## L

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|---|---|---|
| LANDSAT-2 | 1975 | 4A |

## M

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|---|---|---|
| MAS-2 | 1975 | 49B |
| METEOR-2 (1) | 1975 | 64A |
| METEOR-21 | 1975 | 23A |
| METEOR-22 | 1975 | 87A |
| METEOR-23 | 1975 | 124A |
| MOLNYA-1 (29) | 1975 | 36A |
| MOLNYA-1 (30) | 1975 | 49A |
| MOLNYA-1 (31) | 1975 | 79A |
| MOLNYA-2 (12) | 1975 | 9A |
| MOLNYA-2 (13) | 1975 | 63A |
| MOLNYA-2 (14) | 1975 | 81A |
| MOLNYA-2 (15) | 1975 | 121A |
| MOLNYA-3 (2) | 1975 | 29A |
| MOLNYA-3 (3) | 1975 | 105A |
| MOLNYA-3 (4) | 1975 | 125A |

## N

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|---|---|---|
| NIMBUS-6 | 1975 | 52A |

## O

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|---|---|---|
| OSO-8 | 1975 | 57A |

## P

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|---|---|---|
| POLLUX | 1975 | 39A |
| PROGNOZ-4 | 1975 | 122A |

## R

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|---|---|---|
| RADUGA-1 | 1975 | 123A |

## S

| | | |
|---|---|---|
| SAMOS-103 | 1975 | 51A |
| SAS-C | 1975 | 37A |
| SATCOM-1 | 1975 | 117A |
| SMS-2 | 1975 | 11A |
| SOYUZ-17 | 1975 | 1A |
| SOYUZ-18 | 1975 | 44A |
| SOYUZ-19 | 1975 | 65A |
| SOYUZ-20 | 1975 | 106A |
| SRATS | 1975 | 14A |
| SRET-2 | 1975 | 49B |
| SSU-1 | 1975 | 51C |
| STARLETTE | 1975 | 10A |
| STATSIONAR-1 | 1975 | 123A |
| SYMPHONIE-2 | 1975 | 77A |

## T

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|---|---|---|
| TIP-2 | 1975 | 99A |

## V

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|---|---|---|
| VENERA DESCENT CRAFT | 1975 | 50D |
| VENERA DESCENT CRAFT | 1975 | 54D |
| VENERA-9 | 1975 | 50A |
| VENERA-10 | 1975 | 54A |
| VIKING-1 | 1975 | 75A |
| VIKING-2 | 1975 | 83A |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **Soyuz-17** | 1975-1-A | USSR<br>(BAI) | 11 Jan. | 293 km<br>354 km | 90.7 min<br>51.6° | | Two-manned spacecraft. Commander: A. A. Gubarev, flight engineer: G. M. Grechko. Docked with *Salyut-4* on 12 January. The mission was a test of some modifications in the spacecraft control systems and some modified life-sustaining systems.<br><br>Landed 110 km north-east of Tselinograd, Kazakhstan on 9 February 1975 |
| **Cosmos-702** | 1975-2-A | USSR<br>(PLE) | 17 Jan. | 210 km<br>334 km | 89.7 min<br>71.4° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 29 January 1975 |
| **Cosmos-703** | 1975-3-A | USSR<br>(PLE) | 21 Jan. | 207 km<br>1545 km | 102 min<br>82° | | Carried scientific apparatus.<br><br>Decayed on 20 November 1975 |
| **Landsat-2 (ERTS-2)**<br><br>height: 3 m; diameter: 1.5 m; gross mass: 816 kg; a modified version of the *Nimbus-4* meteorological satellite | 1975-4-A | United<br>States<br>NASA<br>(WTR) | 22 Jan. | 901 km<br>915 km | 103.2 min<br>99.1° | 137.86 MHz<br>0.3 or 2.0 W<br><br>2229.5; 2265.5 MHz<br>10 or 20 W<br><br>2287.5 MHz<br>1 W | Earth resources technology satellite. Objectives: to obtain coverage of the United States and other major land masses with multispectral, high spatial resolution images of solar radiation reflected from the earth's surface. These images are used in agricultural, geological, geographical, hydrological and oceano-graphical research |
| **Cosmos-704** | 1975-5-A | USSR<br>(PLE) | 23 Jan. | 213 km<br>329 km | 89.6 min<br>72.9° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 6 February 1975 |
| **Cosmos-705** | 1975-6-A | USSR<br>(PLE) | 28 Jan. | 281 km<br>524 km | 92.3 min<br>71.0° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Decayed on 18 November 1975 |
| **Cosmos-706** | 1975-7-A | USSR<br>(PLE) | 30 Jan. | 635 km<br>39 812 km | 719 min<br>62.8° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Similar to *Cosmos-520, 606, 665* |
| **Cosmos-707** | 1975-8-A | USSR<br>(PLE) | 5 Feb. | 505 km<br>550 km | 95.2 min<br>74° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **12th Molnya-2** | 1975-9-A | USSR<br>(PLE) | 6 Feb. | 640 km<br>40 685 km | 737 min<br>62.8° | 5.7-6.0 GHz<br>(reception)<br><br>3.4-3.9 GHz<br>(transmission) | Carries apparatus for transmitting television programmes and multichannel radio communication, apparatus of the command measuring complex, orientation system, orbit correction system, and power supplies |
| **Starlette**<br><br>spherical satellite made of Uranium 238; diameter: 0.24 m; mass: 47 kg; carries 60 laser-reflecting prisms | 1975-10-A | France<br>CNES<br>(CSG) | 6 Feb. | 804 km<br>1137 km | 104.5 min<br>49.8° | | Geodetic satellite |
| **SMS-2**<br><br>spin-stabilized satellite | 1975-11-A | United States<br>NOAA<br>(ETR) | 6 Feb. | 35 680 km<br>36 685 km<br>geostationary orbit | 1456.4 min<br>1.1° | 136.380 MHz<br>2 or 8 W<br>(tracking and telemetry)<br><br>468.825 MHz<br>10 or 40 W<br>(spacecraft link to data collection platforms)<br><br>1682.5 MHz<br>20 W<br>(data link) | Synchronous meteorological satellite; satellite carries:<br><br>*1)* visible-infrared spin-scan radiometer to provide high-quality day/night cloud cover data and to take radiance temperatures of the earth/atmosphere system;<br><br>*2)* a meteorological data collection and transmission system to relay processed data from central weather facilities to small APT-equipped regional stations and to collect and retransmit data from remote earth-based platforms;<br><br>*3)* a space environment monitor system to measure proton, electron and solar X-ray fluxes and magnetic fields |
| **Cosmos-708** | 1975-12-A | USSR<br>(PLE) | 12 Feb. | 1387 km<br>1423 km | 113.6 min<br>69.2° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-709** | 1975-13-A | USSR<br>(PLE) | 12 Feb. | 188 km<br>333 km | 89.4 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 25 February 1975 |
| **SRATS**<br><br>spin-stabilized octagonal right prism; height: 0.70 m; width: 0.75 m; gross mass: 86 kg; solar cells | 1975-14-A | Japan<br>University of Tokyo | 24 Feb. | 255 km<br>3136 km | 120.3 min<br>31.6° | 136.725 MHz<br>100 mW<br><br>400.45 MHz<br>100 mW<br>(tracking and telemetry) | Solar radiation and thermospheric satellite. Objectives: to study the ionosphere by simultaneously observing solar ionizing radiations (hydrogen, lyman-alpha and X-rays), the ultraviolet albedo of the earth, positive ion composition, and plasma parameters such as electron and ion densities and temperatures in the ionosphere |
| **Cosmos-710** | 1975-15-A | USSR<br>(BAI) | 26 Feb. | 180 km<br>355 km | 89.6 min<br>65° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 12 March 1975 |

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| **Cosmos-711**<br>to<br>**Cosmos-718** | 1975-16-A<br>to<br>1975-16-H | USSR<br>(PLE) | 28 Feb. | 1449 km<br>1530 km | 115.5 min<br>74.0° | | Eight satellites launched by one rocket. They carry scientific apparatus, radio systems for precise measurements of orbital elements, and radio telemetry systems. Government communications satellites |
| **No name** | 1975-17-A | United States USAF (WTR) | 10 March | 276 km<br>39 336 km | 703 min<br>63.5° | | |
| **Cosmos-719** | 1975-18-A | USSR<br>(BAI) | 12 March | 182 km | 89.3 min<br>65.0° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. High-resolution reconnaissance/surveillance mission.<br><br>Returned to earth on 25 March 1975 |
| **Cosmos-720** | 1975-19-A | USSR<br>(PLE) | 21 March | 223 km<br>280 km | 89.4 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 1 April 1975 |
| **Cosmos-721** | 1975-20-A | USSR<br>(PLE) | 26 March | 210 km<br>241 km | 88.9 min<br>81.3° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Ice survey satellite.<br><br>Returned to earth on 7 April 1975 |
| **Cosmos-722** | 1975-21-A | USSR<br>(PLE) | 27 March | 210 km<br>359 km | 89.9 min<br>71.4° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 9 April 1975 |
| **Intercosmos-13** | 1975-22-A | International<br>(PLE) | 27 March | 296 km<br>1714 km | 104.9 min<br>83.0° | | International research satellite carrying experiments provided by Czechoslovakia and USSR. Objectives: research into magnetosphere and polar ionosphere |
| **Meteor-21** | 1975-23-A | USSR<br>(PLE) | 1 April | 877 km<br>906 km | 102.6 min<br>81.2° | | Carries meterological apparatus, electrosupply system, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-723** | 1975-24-A | USSR<br>(BAI) | 2 April | 256 km<br>277 km | 89.6 min<br>65.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Ocean surveillance satellite |
| **Cosmos-724** | 1975-25-A | USSR<br>(BAI) | 7 April | 258 km<br>276 km | 89.7 min<br>65.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Ocean surveillance satellite |
| **Cosmos-725** | 1975-26-A | USSR<br>(PLE) | 8 April | 283 km<br>508 km | 92.1 min<br>71.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. |

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|---|---|---|---|---|---|---|---|
| **Geos-3**<br><br>8-sided satellite; height: 0.81 m; width: 1.32 m; gross mass: 340 kg; solar cells | 1975-27-A | United States<br>NASA<br>(WTR) | 9 April | 837 km<br>844 km | 101.9 min<br>115.0° | 136.320 MHz<br>0.4 or 1.5 W<br>(tracking and telemetry)<br><br>2247.0 MHz<br>5 W<br>(spacecraft-to-spacecraft, and spacecraft-to-ground data links)<br><br>5765.0 MHz<br>400 W<br>(radar transponder)<br><br>13 900.0 MHz<br>2 kW<br>27 800.0 MHz<br>160 W<br>41 700.0 MHz<br>40 W<br>(radar altimeter)<br><br>162.0;324.0 MHz<br>0.4 W<br>(Doppler beacon)<br><br>2069.1125 MHz<br>20 W<br>(ranging) | Geodetic earth-orbiting satellite. Objectives: to perform a satellite altimetry experiment in orbit, to support the calibration and position determination of NASA and other agency C-band radar systems, and to perform a satellite-to-satellite tracking experiment with the *ATS-6* spacecraft using an S-band transponder system |
| **Cosmos-726** | 1975-28-A | USSR | 11 April | 972 km<br>1008 km | 104.7 min<br>83.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **2nd Molnya-3** | 1975-29-A | USSR<br>(PLE) | 14 April | 636 km<br>40 660 km | 736 min<br>63.0° | 1 cm band | Carries apparatus for transmitting television programmes and multichannel radiocommunication, orientation system, command measuring complex apparatus, orbit correction system and power supplies |
| **Cosmos-727** | 1975-30-A | USSR<br>(BAI) | 16 April | 180 km<br>358 km | 89.6 min<br>65.0° | | Carried scientific aparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 28 April 1975 |
| **Cosmos-728** | 1975-31-A | USSR<br>(PLE) | 18 April | 211 km<br>350 km | 89.8 min<br>72.8° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 29 April 1975 |

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|---|---|---|---|---|---|---|---|
| **No name** | 1975-32-A | United States USAF (WTR) | 18 April | 132 km<br>399 km | 89.8 min<br>110.5° | | Reconnaissance satellite.<br><br>Returned to earth on 5 June 1975 |
| **Aryabhat**<br><br>mass: 360 kg | 1975-33-A | India Indian Space Research Organization (AKY) | 19 April | 563 km<br>619 km | 96.3 min<br>50.7° | | First Indian satellite. Objectives: study of the sun and the ionosphere. A power failure halted experiments after four days in orbit |
| **Cosmos-729** | 1975-34-A | USSR | 22 April | 995 km<br>1023 km | 89.0 min<br>83° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-730** | 1975-35-A | USSR | 24 April | 212 km<br>251 km | 89 min<br>81.3° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 6 May 1975 |
| **29th Molnya-1**<br><br>hermetically sealed cylinder with conical ends; mass: 1000 kg; 6 solar panels | 1975-36-A | USSR (PLE) | 29 April | 468 km<br>40 848 km | 737 min<br>63.0° | 800 MHz band (transmission)<br><br>1000 MHz band (reception)<br><br>3400-4100 MHz (retransmission of television) | Carries apparatus for transmitting television programmes and multichannel radiocommunication, command measuring complex apparatus, orientation and orbit correction systems, and power supplies |
| **Explorer-53 (SAS-C)**<br><br>irregular polygon; diameter: 0.66 m; height: 0.61 m; mass: 193 kg; 4 solar paddles; 12-cell Ni-Cd battery | 1975-37-A | United States (SM) | 7 May | 509 km<br>516 km | 94.9 min<br>3.0° | 136.680 MHz<br>0.25 or 1.5 W<br>(tracking and telemetry) | Small astronomical satellite. Objectives: to survey the celestial sphere for X-ray, gamma-ray, ultraviolet and other radiation sources. Monitors intensity and spectra of galactic X-ray sources from 0.2 to 60 keV and X-ray intensity of Scorpio X-1 |
| **Anik-3**<br><br>diameter: 1.80 m; height: 3.30 m; mass: 270 kg; solar cells and battery | 1975-38-A | Canada Telesat (ETR) | 7 May | 35 786 km<br>35 789 km<br>geostationary orbit | 634.3 min<br>24.8° | 3702-4178 MHz (communications)<br><br>4198.0; 4199.0 MHz (telemetry) | Communications satellite for Canadian internal communications. The satellite can accommodate up to 10 colour television channels or 9600 telephone circuits. In geostationary orbit over the equator at 104° W |
| **D-5A Pollux**<br>height: 0.562 m; diameter: 0.61 m; mass: 36 kg; solar cells; Ni-Cd batteries | 1975-39-A | France CNES (CSG) | 17 May | 299 km<br>1258 km | 100.4 min<br>30.0° | 136.610 MHz<br>0.1 W<br>(tracking and telemetry) | Technological satellite. Objective was to test a hydrazine mini-thruster.<br><br>Decayed on 5 August 1975 |
| **D-5B Castor**<br>26 face polyhedron; mass: 76 kg; solar cells | 1975-39-B | France CNES (CSG) | 17 May | 272 km<br>1271 km | 100.3 min<br>29.9° | 136.250 MHz<br>0.25 W<br>(tracking and telemetry) | Technological satellite. Carries an ultrasensitive accelerometer capable of measuring accelerations in the range $10^{-4}$ to $10^{-8}$ m.s$^{-2}$ |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **DSCS-II 5**<br><br>cylindrical satellite; mass: 544 kg; solar cells | 1975-40-A | United States<br>USAF<br>(ETR) | 20 May | 152 km<br>252 km | 88.5 min<br>28.6° | X band | Defense Satellite Communication System. Satellites carried multichannel communications payloads. Four antennae, two for wide earth coverage and two with narrow beams for ground-controlled direction beaming for high-volume communications |
| **DSCS-II 6**<br><br>cylindrical satellite; mass: 544 kg; solar cells | 1975-40-B | United States<br>USAF<br>(ETR) | 20 May | 152 km<br>252 km | 88.5 min<br>28.6° | X band | Defense Satellite Communication System (see *DSCS-II 5*)<br><br>The two satellites were intended for synchronous orbits over the Pacific and Indian Oceans respectively, but they did not attain these orbits due to malfunction of upper stage of rocket.<br><br>Both satellites decayed on 26 May 1975 |
| **Cosmos-731** | 1975-41-A | USSR<br>(BAI) | 21 May | 207 km<br>313 km | 89.5 min<br>65° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 2 June 1975 |
| **Intelsat-IV F1**<br><br>cylindrical satellite; height: 5.28 m; diameter: 2.39 m; mass: 720 kg; solar cells | 1975-42-A | International<br>INTELSAT<br>(ETR) | 22 May | 35 704 km<br>36 184 km<br>geostationary orbit | 1444.2 min<br>0.45° | 5950-6400 MHz<br>(up-link)<br><br>3725-4175 MHz<br>(down-link) | INTELSAT commercial telecommunication satellite; 3000 to 9000 telephone circuits or 12 television channels. In geostationary orbit at 61° E longitude over the Indian Ocean |
| **No name** | 1975-43-A | United States<br>(WTR) | 24 May | 830 km<br>904 km | 102.2 min<br>98.9° | | Defence meteorological satellite |
| **Soyuz-18** | 1975-44-A | USSR<br>(BAI) | 24 May | 322 km<br>384 km | 91.3 min<br>51.6° | | Two-man spacecraft. Commander: Pyotr I. Klimuk; flight engineer: Vitaly I. Sevastyanov. The spacecraft docked with *Salyut-4* on 25 May and the crew transferred to *Salyut-4* |
| **Cosmos-732**<br><br>to<br><br>**Cosmos-739** | 1975-45-A<br><br>to<br><br>1975-45-H | USSR<br>(PLE) | 28 May | 1475 km<br>1532 km | 115.8 min<br>74.0° | | Eight satellites launched simultaneously by one rocket. They carry scientific apparatus, radio systems for precise measurements of orbital elements, and radio telemetry systems |
| **Cosmos-740** | 1975-46-A | USSR<br>(BAI) | 28 May | 181 km<br>347 km | 89.5 min<br>65.0° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 10 June 1975 |

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| **Cosmos-741** | 1975-47-A | USSR (PLE) | 30 May | 210 km<br>246 km | 89.0 min<br>81.4° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 11 June 1975 |
| **Cosmos-742** | 1975-48-A | USSR (PLE) | 3 June | 189 km<br>375 km | 89.8 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. High-resolution reconnaissance/surveillance satellite.<br><br>Returned to earth on 15 June 1975 |
| **30th Molnya-1**<br><br>hermetically-sealed cylinder with conical ends; mass: 1000 kg; 6 solar panels | 1975-49-A | USSR (PLE) | 5 June | 450 km<br>40 890 km | 737 min<br>63.0° | 800 MHz band (transmission)<br>1000 MHz band (reception)<br><br>3400-4100 MHz (retransmission of television) | Carries apparatus for transmitting television programmes and multichannel radiocommunication, apparatus of the command measuring complex, orientation system, orbit correction system and power supplies |
| **Sret-2 (MAS-2)**<br><br>mass: 30 kg | 1975-49-B | France (PLE) | 5 June | 434 km<br>40 856 km | 736.8 min<br>62.8° | 137.53 MHz<br>0.25 W<br>(telemetry and tracking) | Minor-autonomous satellite. Objectives: to test structural materials—teflon, kenton and thermal insulation coatings and a radiation system for cooling spacecraft |
| **Venera-9** | 1975-50-A | USSR (BAI) | 5 June | heliocentric orbit | | | Automatic interplanetary station carrying scientific and measuring apparatus. Objectives: to investigate the surface and atmosphere of the planet Venus |
| **Venera Descent Craft** | 1975-50-D | USSR (BAI) | 5 June | | | | Decayed on Venus |
| **Samos-103 (Big Bird-10)** | 1975-51-A | United States USAF (WTR) | 8 June | 157 km<br>269 km | 88.8 min<br>96.4° | | Reconnaissance/surveillance satellite.<br><br>Decayed on 5 November 1975 |
| **SSU-1** | 1975-51-C | United States USAF (WTR) | 8 June | 1388 km<br>1399 km | 113.6 min<br>95.0° | | |
| **Nimbus-6** | 1975-52-A | United States NASA (WTR) | 12 June | 1093 km<br>1101 km | 107.3 min<br>100.0° | 136.500 MHz<br>0.5 W<br>(tracking and telemetry)<br><br>1702.500 MHz<br>4.0 W<br>(transmission of weather data on command)<br><br>2253.0 MHz<br>2.0, 4.0 or 8.0 W<br>(ranging data transmitted on command) | Meteorological satellite. Carries nine instruments to collect data for the development of numerical models of the atmosphere |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **Cosmos-743** | 1975-53-A | USSR<br>(PLE) | 12 June | 190 km<br>355 km | 89.6 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. High-resolution reconnaissance/surveillance satellite.<br><br>Returned to earth on 25 June 1975 |
| **Venera-10**<br><br>**Venera Descent Craft** | 1975-54-A<br><br>1975-54-D | USSR<br>(BAI)<br><br>USSR<br>(BAI) | 14 June | heliocentric orbit | | | Automatic interplanetary station carrying scientific and measuring apparatus. Objectives: to investigate the surface and atmosphere of the planet Venus<br><br>Decayed on Venus |
| **No name** | 1975-55-A | United<br>States<br>USAF<br>(ETR) | 18 June | 32 100 km<br>39 660 km<br>synchronous orbit | 1441 min<br>10.1° | | Ballistic missile early warning system. Experimental payload similar to 1972-101-A launched on 20 December 1972 |
| **Cosmos-744** | 1975-56-A | USSR<br>(PLE) | 20 June | 612 km<br>650 km | 97.1 min<br>81.2° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **OSO-8**<br><br>gross mass: 4280 kg | 1975-57-A | United<br>States<br>(ETR) | 21 June | 544 km<br>559 km | 95.7 min<br>32.9° | 136.920 MHz<br>2.0 W<br>(tracking and telemetry)<br><br>2212.5 MHz<br>2.9 W<br>(telemetry on command) | Orbiting solar observatory. Objectives: to study the regions between the solar surface and the upper regions of the solar corona, and the sunspot cycle |
| **Cosmos-745** | 1975-58-A | USSR<br>(PLE) | 24 June | 274 km<br>540 km | 92.4 min<br>71.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-746** | 1975-59-A | USSR<br>(PLE) | 25 June | 188 km<br>346 km | 89.5 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. High-resolution reconnaissance/surveillance satellite.<br><br>Returned to earth on 8 July 1975 |
| **Cosmos-747** | 1975-60-A | USSR<br>(PLE) | 27 June | 197 km<br>309 km | 89.3 min<br>62.8° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elemets, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 9 July 1975 |

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| **Cosmos-748** | 1975-61-A | USSR (PLE) | 3 July | 184 km<br>339 km | 89.3 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 16 July 1975 |
| **Cosmos-749** | 1975-62-A | USSR (PLE) | 4 July | 511 km<br>557 km | 95.3 min<br>74.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **13th Molnya-2** | 1975-63-A | USSR (PLE) | 8 July | 465 km<br>40 864 km | 737 min<br>62.8° | 5.7-6.0 GHz (reception)<br><br>3.4-3.9 GHz (transmission) | Carries apparatus for transmitting television programmes and multichannel radio communication, orientation system, orbit correction system, and power supplies |
| **1st Meteor-2** | 1975-64-A | USSR (PLE) | 11 July | 872 km<br>903 km | 102.5 min<br>81.3° | | Carries meteorological apparatus, electronic supply system, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Soyuz-19**<br><br>orbital module; descent module; instrument module; solar arrays | 1975-65-A | USSR (BAI) | 15 July | 186.35 km<br>220.35 km | 88.49 min<br>51.78° | 121.75; 259.5; 296.8 MHz<br>10 W<br><br>(*Soyuz*/*Apollo* communications) | *Apollo-Soyuz* test project (ASTP). Two-man spacecraft: Aleksei Leonov, commander; Valerie Kubasov, flight engineer. Objectives: to test compatible rendezvous and docking systems being developed for future United States/USSR manned spacecraft (see also 1975-66-A).<br><br>Returned to earth on 21 July 1975 54 km north-east of Arkalyk |
| **Apollo (ASTP)**<br><br>command/service module generally similar to those used for ferrying *Skylab* crews to and from the space station | 1975-66-A | United States (ETR) | 15 July | 152 km<br>166 km | 87.7 min<br>51.8° | 121.75; 259.5; 296.8 MHz<br>10 W<br>(*Apollo*/*Soyuz* communications)<br><br>2256.0 MHz<br>40 W<br>(*Apollo* to *ATS-6* data link)<br><br>2272.5 MHz<br>20 W<br>(*Apollo* to ground telemetry and television)<br><br>2287.5 MHz<br>20 W<br>(*Apollo* to ground data link) | *Apollo-Soyuz* test project (ASTP). Three-man spacecraft: T. Stafford, commander; V. Brand, command module pilot; D. Slayton, docking module pilot. Objectives: to test compatible rendezvous and docking systems being developed for future United States/USSR manned spacecraft. Also 27 experiments were carried aboard the spacecraft.<br><br>Splashed down in Pacific Ocean 530 km west of Honolulu on 24 July 1975 |
| **Cosmos-750** | 1975-67-A | USSR (PLE) | 17 July | 281 km<br>830 km | 95.4 min<br>71.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-751** | 1975-68-A | USSR (PLE) | 23 July | 203 km<br>335 km | 89.6 min<br>62.8° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 4 August 1975 |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **Cosmos-752** | 1975-69-A | USSR<br>(PLE) | 24 July | 480 km<br>526 km | 94.6 min<br>65.9° | | Carries scientific apparatus, radio system for precise measurements or orbital elements, and radio telemetry system |
| **No name** | 1975-70-A | China<br>(SCT) | 26 July | 186 km<br>464 km | 91 min<br>69.0° | | Third Chinese satellite.<br><br>Decayed on 14 September 1975 |
| **Cosmos-753** | 1975-71-A | USSR<br>(PLE) | 31 July | 189 km<br>351 km | 89.6 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 13 August 1975 |
| **COS-B**<br><br>cylindrical satellite; diameter: 1.40 m; height: 1.21 m; mass: 275 kg; 4 monopole antennae; solar cells | 1975-72-A | International<br>ESA<br>(WTR) | 9 Aug. | 343 km<br>101 568 km | 2277.1 min<br>90.2° | 136.950 MHz<br>6.5 W<br>(tracking and telemetry) | Objectives: to study extraterrestrial gamma radiation |
| **Cosmos-754** | 1975-73-A | USSR<br>(PLE) | 13 Aug. | 210 km<br>345 km | 89.8 min<br>71.4° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 26 August 1975 |
| **Cosmos-755** | 1975-74-A | USSR<br>(PLE) | 14 Aug. | 991 km<br>1025 km | 105 min<br>82.9° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Navigational satellite |
| **Viking-1**<br><br>includes an orbiter and a lander which will separate on approach to Mars;<br><br>— orbiter: 8-sided structure, width: 2.40 m; height: 3.30 m; mass (fuel inclusive): 2325 kg; solar panels and Ni-Cd batteries;<br><br>— lander: width: 3.0 m; height: 2.0 m; mass: 576 kg (without fuel); two 35 W radioisotope thermoelectric generators; 4 Ni-Cd batteries | 1975-75-A | United<br>States<br>NASA<br>(ETR) | 20 Aug. | earth-Mars trajectory | | 2293.148 MHz<br>50 W<br>2295.740 MHz<br>50 W<br>(tracking and telemetry) | Objectives: to explore the surface and atmosphere of the planet Mars.<br><br>Spacecraft is expected to arrive at Mars in July 1976 |
| **Cosmos-756** | 1975-76-A | USSR<br>(PLE) | 22 Aug. | 627 km<br>649 km | 97.3 min<br>81.2° | | Carries scientific apparatus, radio system for precise measurements of orbital elements and radio telemetry system |

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| **Symphonie-2**<br><br>diameter: 1.85 m; height 0.50 m; mass at launch: 402 kg, in orbit: 230 kg; solar panels and batteries | 1975-77-A | France/ Federal Republic of Germany (ETR) | 27 Aug. | 35 364 km<br>35 870 km | 1427.4 min<br>0.0°<br>synchronous orbit | 136.800 MHz<br>0.9 or 5.2 W<br>(telemetry and tracking) | Experimental communications satellite |
| **Cosmos-757** | 1975-78-A | USSR (PLE) | 27 Aug. | 190 km<br>337 km | 89.5 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. High-resolution reconnaissance/surveillance satellite.<br><br>Returned to earth on 9 September 1975 |
| **31st Molnya-1** | 1975-79-A | USSR (PLE) | 2 Sept. | 639 km<br>40 681 km | 737 min<br>62.8° | 800 MHz<br>(transmission)<br><br>1000 MHz<br>(reception)<br><br>3400-4100 MHz<br>(retransmission of television) | Carries apparatus for transmitting television programmes and multichannel radio communication, apparatus of the command measuring complex, orientation system, orbit correction system, and power supplies |
| **Cosmos-758** | 1975-80-A | USSR (PLE) | 5 Sept. | 181 km<br>351 km | 89.5 min<br>67.2° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Broke up in orbit on 7 September 1975 |
| **14th Molnya-2** | 1975-81-A | USSR (PLE) | 9 Sept. | 470 km<br>40 836 km | 736 min<br>62.8° | 5.7-6.0 GHz<br>(reception)<br><br>3.4-3.9 GHz<br>(transmission) | Carries apparatus for transmitting television programmes and multichannel radiocommunications, apparatus of the command measuring complex, orientation system, orbit correction system and power supplies |
| **ETS-1 (Kiku)**<br><br>gross mass: 85 kg | 1975-82-A | Japan National Space Development Agency (TSC) | 9 Sept. | 963 km<br>1093 km | 105.7 min<br>47.0° | 136.81 MHz<br>1 W;<br>1705 MHz<br>1 W<br>(telemetry and beacon) | Engineering test satellite |
| **Viking-2**<br><br>refer to data on *Viking-1* (1975-75-A) | 1975-83-A | United States (ETR) | 9 Sept. | earth-Mars trajectory | | 2297.722 MHz<br>50 W<br>(tracking and telemetry)<br><br>2295.740 MHz<br>50 W<br>(back-up frequency) | Objectives: to explore the surface and atmosphere of the planet Mars.<br><br>Spacecraft is expected to arrive at Mars in August 1976 |
| **Cosmos-759** | 1975-84-A | USSR (PLE) | 12 Sept. | 234 km<br>281 km | 89.6 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 23 September 1975 |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **Cosmos-760** | 1975-85-A | USSR<br>(BAI) | 16 Sept. | 181 km<br>355 km | 89.6 min<br>65.0° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. High-resolution reconnaissance/surveillance satellite.<br><br>Returned to earth on 30 September 1975 |
| **Cosmos-761**<br>to<br>**Cosmos-768** | 1975-86-A<br>to<br>1975-86-H | USSR<br>(PLE) | 17 Sept. | 1454 km<br>1537 km | 115.5 min<br>74.0° | | Eight satellites launched by the same carrier rocket. Carry scientific apparatus, radio systems for precise measurements of orbital elements, and radio telemetry systems. Defence communications satellite programme |
| **Meteor-22** | 1975-87-A | USSR<br>(PLE) | 18 Sept. | 867 km<br>918 km | 102.3 min<br>81.2° | | Carries meteorological apparatus, electrosupply system, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-769** | 1975-88-A | USSR<br>(PLE) | 23 Sept. | 211 km<br>331 km | 89.6 min<br>72.9° | | Carried scientific apparatus, radio system for precise measurements of orbital elements and radio telemetry system.<br><br>Returned to earth on 5 October 1975 |
| **Cosmos-770** | 1975-89-A | USSR<br>(PLE) | 24 Sept. | 1188 km<br>1222 km | 109.2 min<br>83.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Navigational satellite |
| **Cosmos-771** | 1975-90-A | USSR<br>(PLE) | 25 Sept. | 219 km<br>247 km | 88.9 min<br>81.3° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 8 October 1975 |
| **Intelsat-IV A F1**<br><br>cylindrical spin-stabilized satellite; height: 6.99 m; diameter: 2.38 m; mass at launch: 1515 kg, in orbit: 825 kg; solar cells | 1975-91-A | International<br>INTELSAT<br>(ETR) | 26 Sept. | geostationary orbit | | 3947.5; 3952.5 MHz<br>(broadcast telemetry)<br><br>3700-4200 MHz<br>20 W<br>(communications data) | INTELSAT commercial telecommunication satellite; 6250 two-way telephone circuits and two television channels. To be placed in geostationary orbit at 335° E |
| **D-2B Aura**<br><br>cylindrical satellite; height: 0.80 m; diameter: 0.70 m; mass: 106.6 kg; 4 solar panels | 1975-92-A | France<br>CNES<br>(CSG) | 27 Sept. | 503 km<br>715 km | 96.8 min<br>37.16° | 136.740 MHz<br>5 W<br>(tracking and telemetry) | Astronomy research satellite. Carries four experiments for the study of solar and stellar ultraviolet radiation |
| **Cosmos-772** | 1975-93-A | USSR<br>(BAI) | 29 Sept. | 201 km<br>320 km | 89.4 min<br>51.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 2 October 1975 |

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| **Cosmos-773** | 1975-94-A | USSR (PLE) | 30 Sept. | 791 km<br>828 km | 100.9 min<br>74.1° | | Carries scientific apparatus, radio system for precise measurements of orbital elements and radio telemetry system |
| **Cosmos-774** | 1975-95-A | USSR (PLE) | 1 Oct. | 212 km<br>333 km | 89.7 min<br>71.4° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 15 October 1975 |
| **Explorer-54**<br><br>cylindrical spacecraft; height: 1.15 m; diameter: 1.35 m; gross mass: 681 kg; solar cells; Ni-Cd batteries | 1975-96-A | United States NASA (WTR) | 6 Oct. | 154 km<br>3816 km | 126.9 min<br>90.1° | 137.230 MHz<br>0.25 or 1 W<br>2289.500 MHz<br>0.5 or 4.3 W<br>(tracking and telemetry) | Atmosphere explorer. Objectives: to investigate the chemical processes and energy transfer mechanisms that control the structure and behaviour of the earth's atmosphere and ionosphere through the region of high solar energy absorption. The region between 120 and 300 km altitude will be the main target of the investigation |
| **Cosmos-775** | 1975-97-A | USSR (BAI) | 8 Oct. | 35 900 km<br>— | 1442 min<br>0.1° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| | | | | synchronous orbit | | | |
| **No name** | 1975-98-A | United States USAF (WTR) | 9 Oct. | 123 km<br>354 km | 89.3 min<br>96.4° | | Decayed on 30 November 1975 |
| **TIP-2** | 1975-99-A | United States USAF (WTR) | 12 Oct. | 360 km<br>703 km | 95.3 min<br>90.7° | 150 MHz<br>shifting to<br>400 MHz<br>after 30 days<br>(tracking and telemetry) | |
| **GOES-1**<br><br>spin-stabilized cylindrical spacecraft; height: 2.30 m; diameter: 1.90 m; mass: 294 kg; | 1975-100-A | United States NOAA (ETR) | 16 Oct. | 34 165 km<br>36 458 km | 1412.0 min<br>1.0° | 136.380 MHz<br>2 or 8 W<br>(telemetry and tracking)<br><br>468.825 MHz<br>10 or 40 W<br>(spacecraft to data collection platforms)<br><br>1682.500 MHz<br>20 W<br>(spacecraft to earth data link)<br><br>all frequencies can be commanded on or off | Geostationary operational environmental satellite similar in design to *SMS-1* and *SMS-2* |
| | | | | geostationary orbit; after checkout the satellite was positioned at 49° W | | | |
| **Cosmos-776** | 1975-101-A | USSR (PLE) | 17 Oct. | 203 km<br>310 km | 89.4 min<br>62.8° | 19.995 MHz | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 29 October 1975 |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **Cosmos-777** | 1975-102-A | USSR<br>(BAI) | 29 Oct. | 437 km<br>456 km | 93.3 min<br>65.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements and radio telemetry system |
| **Cosmos-778** | 1975-103-A | USSR<br>(PLE) | 4 Nov. | 989 km<br>1018 km | 104.9 min<br>83.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Navigation satellite |
| **Cosmos-779** | 1975-104-A | USSR<br>(PLE) | 4 Nov. | 188 km<br>334 km | 89.4 min<br>62.8° | | Carried scientific apparatus, radio system for precise measurements of orbital elements and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 18 November 1975 |
| **3rd Molnya-3** | 1975-105-A | USSR | 14 Nov. | 470 km<br>40 830 km | 736 min<br>62.4° | 1 cm band | Carries apparatus for transmitting television programmes and multichannel radio communication, apparatus of the command measuring complex, orientation system, orbit correction system, and power supplies |
| **Soyuz-20** | 1975-106-A | USSR<br>(BAI) | 17 Nov. | 199.7 km<br>263.5 km | 88.8 min<br>51.6° | | Pilotless *Soyuz* test mission for practising of onboard systems in various flight modes. Docked with *Salyut-4* on 19 November 1975 for a programme of testing onboard systems in joint flight. A series of biological experiments were undertaken to provide data for the design of new cosmonaut life-support systems. The spacecraft carries turtles, drosophila and 20 species of higher plants |
| **Explorer-55 (Atmosphere Explorer-E)**<br><br>gross mass: 735 kg | 1975-107-A | United States<br>NASA<br>(ETR) | 20 Nov. | 157 km<br>3025 km | 118 min<br>19.7° | 137.230 MHz<br>0.25 or 1 W<br>(tracking and telemetry)<br><br>2289.500 MHz<br>0.5 or 4.3 W<br>(tracking and telemetry on command) | Objective: to investigate the chemical processes and energy transfer mechanisms that control the structure and behaviour of the earth's atmosphere and ionosphere through the region of high solar absorption |
| **Cosmos-780** | 1975-108-A | USSR<br>(BAI) | 21 Nov. | 206 km<br>298 km | 89.3 min<br>65.0° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Reconnaissance/surveillance satellite.<br><br>Returned to earth on 3 December 1975 |
| **Cosmos-781** | 1975-109-A | USSR<br>(PLE) | 21 Nov. | 508 km<br>557 km | 95.2 min<br>74.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |

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| **Cosmos-782 (Biosputnik)** | 1975-110-A | USSR (PLE) | 25 Nov. | 227 km<br>405 km | 90.5 min<br>62.8° | | Carried biological experiments supplied by USSR, Czechoslovakia, France and United States. Objectives: research on effects of radiation during long space flights and effects of weightlessness and different gravitational fields. This last experiment was done by means of an onboard centrifuge.<br><br>Returned to earth on 15 December 1975 |
| **No name** | 1975-111-A | China (SCT) | 26 Nov. | 173 km<br>483 km | 91.0 min<br>63.0° | | Fourth Chinese satellite.<br><br>Returned to earth on 2 December 1975 |
| **Cosmos-783** | 1975-112-A | USSR (PLE) | 28 Nov. | 797 km<br>838 km | 101.0 min<br>74.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system |
| **Cosmos-784** | 1975-113-A | USSR (PLE) | 3 Dec. | 216 km<br>252 km | 89.0 min<br>81.3° | | Carried scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system.<br><br>Returned to earth on 15 December 1975 |
| **Big Bird-11** | 1975-114-A | United States USAF (WTR) | 3 Dec. | 157 km<br>241 km | 88.5 min<br>96.3° | | |
| **No name** | 1975-114-B | United States USAF (WTR) | 3 Dec. | 234 km<br>1555 km | 102.9 min<br>96.3° | | |
| **Intercosmos-14** | 1975-115-A | International (PLE) | 11 Dec. | 345 km<br>1707 km | 105.3 min<br>74.0° | | Carries experiments developed by Bulgaria, Czechoslovakia, German Democratic Republic, Hungarian People's Republic, People's Republic of Poland and USSR |
| **Cosmos-785** | 1975-116-A | USSR (BAI) | 12 Dec. | 259 km<br>278 km | 89.7 min<br>65.0° | | Carries scientific apparatus, radio system for precise measurements of orbital elements, and radio telemetry system. Ocean surveillance satellite |
| **Satcom-1**<br><br>3-axis stabilized satellite; mass: 463 kg; solar panels | 1975-117-A | United States RCA Corporation (ETR) | 13 Dec. | 35 625 km<br>36 086 km<br>synchronous orbit | 1439.7 min<br>0.3° | 3701; 4199 MHz (telemetry)<br><br>3720-4180 MHz band (communications) | United States domestic communications satellite. Carries 24 transponders each of which can handle 1200 voice-grade channels, one colour television transmission or more than 60 Mbit/s of data |
| **No name** | 1975-118-A | United States | 14 Dec. | | | | |
| **No name** | 1975-119-A | China (SCT) | 16 Dec. | 180.7 km<br>392.6 km | 90.2 min<br>69.0° | | Fifth Chinese satellite |

| *Code name*<br>*Spacecraft description* | *International number* | *Country*<br>*Organization*<br>*Site of launching* | *Date* | *Perigee*<br>*Apogee* | *Period*<br>*Inclination* | *Frequencies*<br>*Transmitter power* | *Observations* |
|---|---|---|---|---|---|---|---|
| **Cosmos-786** | 1975-120-A | USSR<br>(BAI) | 16 Dec. | 180 km<br>347 km | 89.5 min<br>65.0° | | Carried scientific apparatus, radio system for precise measurements of orbital elements and radio telemetry system. High resolution reconnaissance/surveillance satellite.<br><br>Returned to earth on 29 December 1975 |
| **15th Molnya-2** | 1975-121-A | USSR<br>(PLE) | 17 Dec. | 451 km<br>40 836 km | 736 min<br>62.8° | 5.7-6.0 GHz<br>(reception)<br><br>3.4-3.9 GHz<br>(transmission) | Carries apparatus for transmitting television programmes and multichannel radiocommunications, apparatus of the command measuring complex, orientation system, orbit correction system, and power supplies |
| **Prognoz-4**<br><br>mass: 905 kg | 1975-122-A | USSR<br>(BAI) | 22 Dec. | 634 km<br>199 000 km | 5745 min<br>65.0° | | Objectives: to measure the corpuscular and electromagnetic emissions of the sun and the flow of solar plasma; to measure near-earth magnetic fields and determine solar influence |
| **Raduga-1 (Statsionar-1)**<br><br>3-axis stabilized satellite; solar cells | 1975-123-A | USSR<br>(BAI) | 22 Dec. | 35 800 km<br>geostationary orbit | 1434 min<br>0.3° | centimetre waveband | Geostationary communication satellite providing colour, black-and-white television, and telegraph and telephone channels. Is linked with the *Orbita* network |
| **Meteor-23** | 1975-124-A | USSR<br>(PLE) | 25 Dec. | 857 km<br>913 km | 102.4 min<br>81.3° | | Carries meteorological apparatus, electro supply system, radio system for precise measurements of orbital elements, and radio telemetry system |
| **4th Molnya-3** | 1975-125-A | USSR<br>(PLE) | 27 Dec. | 470 km<br>40 800 km | 736 min<br>62.8° | 1 cm band | Carries apparatus for transmitting television programmes and multichannel radiocommunications, apparatus of the command measuring complex, orientation system, orbit correction system, and power supplies |

AKY = Aktubinsk-Kapustin Yar (USSR)
BAI = Baikonur (USSR)
CNES = Centre national d'études spatiales (France)
CSG = Centre spatial guyanais, Kourou (French Guyana)
ESA = European Space Agency
ETR = Eastern Test Range (United States)
INTELSAT = International Telecommunications Satellite Organization
NASA = National Aeronautics and Space Administration (United States)
NOAA = National Oceanic and Atmospheric Administration (United States)
PLE = Plesetsk (USSR)
SCT = Shuang Cheng Tzu (China)
SM = San Marco platform (Italy/Kenya)
TSC = Tanegashima Space Centre (Japan)
USAF = United States Air Force
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, CH-1211 Genève 20 (Switzerland).

*The following satellites have decayed since the publication, in the April 1975 issue of the "Telecommunication Journal", of the "Table of artificial satellites launched in 1974"*

| *satellite* | *international number* | *decay* | *satellite* | *international number* | *decay* |
|---|---|---|---|---|---|
| **OV2-3 (Titan-3 C-8)** | 1965-108-A | 17 August 1975 | **Salyut-3** | 1974-46-A | 24 January 1975 |
| **Heos-1** | 1968-109-A | 28 October 1975 | **Aeros-2** | 1974-55-A | 25 September 1975 |
| **13th Molnya-1** | 1970-13-A | 29 September 1975 | **Cosmos-668** | 1974-58-A | 21 February 1975 |
| **No name** | 1970-66-A | 26 March 1975 | **Cosmos-686** | 1974-74-A | 1 May 1975 |
| **16th Molnya-1** | 1970-101-A | 25 November 1975 | **Big Bird** | 1974-85-A | 19 March 1975 |
| **17th Molnya-1** | 1970-114-A | 22 December 1975 | **Intercosmos-12** | 1974-86-A | 11 July 1975 |
| **Cosmos-462** | 1971-106-A | 4 April 1975 | **Cosmos-695** | 1974-91-A | 15 July 1975 |
| **4th Molnya-2** | 1972-98-A | 22 January 1975 | **Cosmos-701** | 1974-106-A | 8 January 1975 |
| **Cosmos-615** | 1973-99-A | 17 December 1975 | | | |