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Information furnished in conformity with the Convention on Registration of Objects Launched into Outer Space

Note verbale dated 8 January 2025 from the Permanent Mission of Japan to the United Nations (Vienna) addressed to the Secretary-General

The Permanent Mission of Japan to the United Nations (Vienna), in accordance with article IV of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex), has the honour to transmit information on new and previously registered space objects (see annexes I and II).[1]

[1] The data on the space objects referenced in the annexes were entered into the Register of Objects Launched into Outer Space on 24 January 2025.

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Annex I

Registration information on space objects launched by Japan*

SpaceTuna1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067UP
Name of the space object	SpaceTuna1
State of registry	Japan
Other launching States	United States of America
Date and territory or location of launch	2 December 2022 UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	90 minutes
Inclination	51.6 degrees
Apogee	420 kilometres
Perigee	420 kilometres
General function of the space object	Measuring the basic reflective characteristics of retroreflective material sheets mounted on the satellite by irradiating the sheets with a laser from the ground Orbit tracking by ground-based telescopes through the observation of pulsed blue light emitting diodes (LEDs) onboard the satellite
Date of decay/re-entry/deorbit	13 May 2023 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Kindai University
Website	www.kindai.ac.jp/news-pr/news-release/2022/04/035643.html
Other information	The space object was launched on 7 November 2022 UTC by an Antares rocket and transported to ISS by the NG-18 Cygnus Cargo Vehicle The date of launch is the date of deployment from ISS and the territory or location of launch is the location of deployment The spacecraft is estimated to have re-entered the atmosphere and to have been lost on 13 May 2023 UTC

* The information was submitted using the form prepared pursuant to General Assembly resolution 62/101 and has been reformatted by the Secretariat.

HSKSAT

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067UZ
Name of the space object	HSKSAT
State of registry	Japan
Date and territory or location of launch	6 January 2023 at 0932 hours UTC; ISS
Basic orbital parameters	
Nodal period	92.43 minutes
Inclination	51.64 degrees
Apogee	415 kilometres
Perigee	416 kilometres
General function of the space object	Image the Earth’s surface using a consumer camera for Earth observation (resolution: 10 m) and demonstrate high-speed data transmission (32 amplitude phase modulation: 200 kbps) to the ground station using S-band communication equipment Verify the on-orbit functions and performance of the satellite's onboard equipment and the three-axis attitude control of the nano-satellite Provide images and data of the Earth’s surface to the public

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Harada Seiki Co., Ltd.
Website	https://prtimes.jp/main/html/rd/p/000000017.000074539.html
Launch vehicle	CRS-26
Other information	HSKSAT was launched by a SpaceX (CRS-26) rocket on 26 November 2022 UTC and transported to the ISS by Cargo Dragon (C211) The date of launch is the date of deployment from ISS and the territory or location of launch is the location of deployment

QPS-SAR-6 AMATERU-III

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-084V
Name of the space object	QPS-SAR-6 AMATERU-III
State of registry	Japan
Date and territory or location of launch	12 June 2023 UTC; United States

Basic orbital parameters	
Nodal period	95.14 minutes
Inclination	97.51 degrees
Apogee	534 kilometres
Perigee	516 kilometres
General function of the space object	Earth observation by synthetic aperture radar (SAR)

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	iQPS Inc.
Website	https://i-qps.net/
Launch vehicle	Falcon9
Other information	Launched by Space X on 12 June 2023

Smart Lander for Investigating Moon (SLIM)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-137D
Name of the space object	Smart Lander for Investigating Moon (SLIM)
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	2,179 minutes
Inclination	31 degrees
Apogee	98,020 kilometres
Perigee	575 kilometres
General function of the space object	SLIM embodies the research of techniques that enable accurate landing and the demonstration of those techniques on the Moon

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Japan Aerospace Exploration Agency (JAXA)
Website	https://global.jaxa.jp/projects/sas/slim/index.html
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Celestial body	On the Moon
Other information	Launching organizations are Mitsubishi Heavy Industries, Ltd. and JAXA Basic orbital parameters are as at 7 September 2023

Lunar Excursion Vehicle-1 (LEV-1)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

National designator/registration number	2023-137D-A
Name of the space object	Lunar Excursion Vehicle-1 (LEV-1)
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	-
Inclination	-
Apogee	-
Perigee	-
General function of the space object	LEV-1 demonstrates an autonomous mobile exploration function that does not require command transmission from the ground

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	28 February 2024 UTC
Space object owner or operator	JAXA
Website	https://robotics.isas.jaxa.jp/lev/LEV_HAM_Club.html
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Celestial body	On the Moon
Other information	LEV-1 was attached to SLIM which was launched by an H-IIA launch vehicle on 6 September 2023. It was transferred to the Moon by SLIM on 19 January 2024 at 1519 hours 49 seconds UTC LEV-1 was determined inoperable as datalinks could not be restored after a lunar night

Lunar Excursion Vehicle-2 (LEV-2) "SORA-Q"

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

National designator/registration number	2023-137D-B
Name of the space object	Lunar Excursion Vehicle-2 (LEV-2) "SORA-Q"
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan

Basic orbital parameters	
Nodal period	-
Inclination	-
Apogee	-
Perigee	-
General function of the space object	LEV-2 is equipped with two cameras and can change its shape to run on the lunar surface

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	19 January 2024 UTC
Space object owner or operator	JAXA
Website	https://global.jaxa.jp/activity/pr/jaxas/no088/03.html
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Celestial body	On the Moon
Other information	LEV-2 was attached to SLIM which was launched by a H-IIA launch vehicle on 6 September 2023. It was transferred to the Moon by SLIM and was deployed on 19 January 2024 at 1519 hours 49 seconds UTC Due to the primary power source being depleted, power ceased naturally on 19 January 2024

Lunar Excursion Vehicle-2 Cover (LEV-2 Cover)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

National designator/registration number	2023-137D-C
Name of the space object	Lunar Excursion Vehicle-2 Cover (LEV-2 Cover)
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	-
Inclination	-
Apogee	-
Perigee	-
General function of the space object	The LEV-2 cover holds the LEV-2 until it separates from SLIM

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	19 January 2024 UTC at 1519 hours 49 seconds UTC
Space object owner or operator	JAXA
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Celestial body	On the Moon
Other information	LEV-2 Cover was attached to SLIM which was launched by a H-IIA launch vehicle on 6 September 2023. It was transferred to the Moon by SLIM and was deployed on 19 January 2024 at 1519 hours 49 seconds UTC

Lunar Excursion Vehicle Spacer (LEV Spacer)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

National designator/registration number	2023-137D-D
Name of the space object	Lunar Excursion Vehicle Spacer (LEV Spacer)
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	-
Inclination	-
Apogee	-
Perigee	-
General function of the space object	Facilitates the separation of LEV-1 and LEV-2

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	19 January 2024 UTC at 1519 hours 49 seconds UTC
Space object owner or operator	JAXA
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Celestial body	On the Moon
Other information	LEV Spacer was attached to SLIM which was launched by a H-IIA launch vehicle on 6 September 2023. It was transferred to the Moon by SLIM and was deployed on 19 January 2024 at 1519 hours 49 seconds UTC

X-Ray Imaging and Spectroscopy Mission (XRISM)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-137A
Name of the space object	X-Ray Imaging and Spectroscopy Mission (XRISM)
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96.20 minutes
Inclination	30.99 degrees
Apogee	578.66 kilometres
Perigee	574.70 kilometres
General function of the space object	XRISM is equipped with two sets of X-ray mirror assemblies, a pair of focal plane instruments, the X-ray CCD detector, and an X-ray microcalorimeter The science objectives are to study the formation of the large-scale structure and the evolution of galaxy clusters, the history of production and circulation of elements, and energy transport and circulation in the universe

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	JAXA
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Website	https://xrism.isas.jaxa.jp/en/
Other information	Launching organizations are Mitsubishi Heavy Industries, Ltd. and JAXA Basic orbital parameters are as at 6 September 2023

KOYOH

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-185C
Name of the space object	KOYOH
State of registry	Japan
Other launching States	United States
Date and territory or location of launch	1 December 2023 at 1819 hours UTC; Vandenberg Space Force Base, California, United States

Basic orbital parameters	
Nodal period	95.83 minutes
Inclination	97.646 degrees
Apogee	567 kilometres
Perigee	552 kilometres
General function of the space object	KOYOH observes celestial transient sources such as gamma-ray bursts associated with gravitational waves by x-ray imaging with the Wide Field of View X-ray imager, identifies the transient event's time and direction, and immediately notifies ground observatories around the world

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Kanazawa University
Website	https://arc-sat.w3.kanazawa-u.ac.jp/en/
Launch vehicle	Falcon-9, Korea 425 mission
Other information	Launching organization is SpaceX

QPS-SAR-5 TSUKUYOMI-I

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-196A
Name of the space object	QPS-SAR-5 TSUKUYOMI-I
State of registry	Japan
Other launching States	New Zealand
Date and territory or location of launch	15 December 2023 UTC; New Zealand
Basic orbital parameters	
Nodal period	96.2 minutes
Inclination	42.0 degrees
Apogee	589 kilometres
Perigee	580 kilometres
General function of the space object	Earth observation by SAR

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	iQPS Inc.
Website	https://i-qps.net/
Launch vehicle	Electron
Other information	Launched by Rocket Lab on 15 December 2023

Clark sat-1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067WE
Name of the space object	Clark sat-1
State of registry	Japan
Other launching States	United States
Date and territory or location of launch	18 December 2023 at 1015 hours 20 seconds UTC; ISS
Basic orbital parameters	
Nodal period	92.75 minutes
Inclination	51.64 degrees
Apogee	413 kilometres
Perigee	406 kilometres
General function of the space object	Clark sat-1 is an educational satellite with following functions: receiving commands and transmitting telemetries; taking and transmitting images; and transmitting voice messages and images recorded before launch
Date of decay/re-entry/deorbit	15 April 2024 at 2030 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	SOSHI Educational Group
Website	https://sp.clark.ed.jp/en/
Launch vehicle	Falcon 9
Other information	Launched by a Falcon 9 rocket on 10 November 2023 UTC and transported to the ISS by Cargo Dragon Deployed from ISS on 18 December 2023 UTC

BEAK

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067WD
Name of the space object	BEAK
State of registry	Japan
Date and territory or location of launch	18 December 2023 at 0835 hours 14 seconds UTC; ISS

Basic orbital parameters	
Nodal period	92.8 minutes
Inclination	51.6 degrees
Apogee	421.5 kilometres
Perigee	416.1 kilometres
General function of the space object	Experimental engineering satellite for orbital manoeuvring using aerodynamic drag on a deployed membrane aeroshell; deployment of an aeroshell supported by shape memory alloy frames; evaluation of a nano-sized water resistojet propulsion system; and operations using Iridium/GPS
Date of decay/re-entry/deorbit	29 June 2024 at 0135 hours 11 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	University of Tokyo
Other information	Launched by a Falcon 9 rocket on 10 November 2023 UTC and delivered to ISS by the SpaceX Dragon CRS-29 Mission resupply spacecraft on 11 November 2023 UTC Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

DRUMS TARGET-2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102N
Name of the space object	DRUMS TARGET-2
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	95.67 minutes
Inclination	97.5 degrees
Apogee	574 kilometres
Perigee	528 kilometres
General function of the space object	This object was separated from the DRUMS micro-satellite for demonstration of approach and capture technologies

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Kawasaki Heavy Industries, Ltd. https://global.kawasaki.com/en/mobility/air/space/stratospheric_platform.html
Launch vehicle	Epsilon 5
Other information	Launching organization is JAXA DRUMS TARGET-2 was separated from the DRUMS micro-satellite on 25 December 2023

2024-010A

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-010A
National designator/registration number	2024-010A
State of registry	Japan
Date and territory or location of launch	12 January 2024 UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	94 minutes
Inclination	97.3 degrees
Apogee	487 kilometres
Perigee	463 kilometres
General function of the space object	Satellite conducting missions assigned by the Government of Japan

CE-SAT-IE

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-032A
Name of the space object	CE-SAT-IE
State of registry	Japan
Date and territory or location of launch	17 February 2024 at 0022 hours 55 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	98 minutes
Inclination	98.2 degrees
Apogee	685 kilometres
Perigee	670 kilometres

General function of the space object	Technical demonstration of Earth remote sensing, newly developed bus system and orbit control mechanism

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Canon Electronics Inc.
Website	https://en.canon-elec.co.jp/space/
Launch vehicle	H3 Launch Vehicle (H3TF2: Test Flight No. 2)
Other information	Launching organization is JAXA

TIRSAT

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-032C
Name of the space object	TIRSAT
State of registry	Japan
Date and territory or location of launch	17 February 2024 at 0022 hours 55 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	98.1 minutes
Inclination	98.11 degrees
Apogee	671 kilometres
Perigee	665 kilometres
General function of the space object	Earth observation and store-and-forward communications

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Owner: Ministry of Economy, Trade and Industry (METI) of Japan Operator:. Seiren Co. Ltd., ArkEdge Space Inc.
Website	https://arkedgespace.com/en/news/2024-02-06_tirsat
Launch vehicle	H3 Launch Vehicle (H3TF2:Test Flight No. 2)
Other information	Launching organization is JAXA

ADRAS-J

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-034A
Name of the space object	ADRAS-J
State of registry	Japan

Other launching States	New Zealand
Date and territory or location of launch	18 February 2024 at 1452 hours 16.6 seconds UTC; Mahia, New Zealand
Basic orbital parameters	
Nodal period	95.96 minutes
Inclination	98.20 degrees
Apogee	598 kilometres
Perigee	533 kilometres
General function of the space object	The ADRAS-J satellite is designed to rendezvous with a Japanese upper-stage rocket body; demonstrate proximity operations; and obtain images, delivering observational data to better understand the debris environment

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Astroscale Japan Inc.
Website	https://astroscale.com/missions/adras-j/ www.kenkai.jaxa.jp/eng/crd2/index.html
Launch vehicle	Rocket Lab Electron rocket
Other information	The ADRAS-J spacecraft was selected by JAXA for Phase I of its Commercial Removal of Debris Demonstration Project (CRD2), one of the world's first technology demonstrations of removing large-scale debris from orbit

StriX-3

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-047A
Name of the space object	StriX-3
State of registry	Japan
Other launching States	New Zealand and United States
Date and territory or location of launch	12 March 2024 at 1503 hours 32 seconds UTC; Mahia Peninsula, New Zealand
Basic orbital parameters	
Nodal period	96 minutes
Inclination	97.66 degrees
Apogee	561 kilometres
Perigee	561 kilometres
General function of the space object	StriX-3 is the fourth SAR satellite made by Synspective Inc. for commercial SAR imagery (remote sensing) provision services, including upload and download functionality and clear imaging

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Owner: Synspective, Inc. Operator: Synspective Japan, Inc.
Website	http://synspective.com/
Launch vehicle	Electron #45
Other information	Launched by Rocket Lab on 12 March 2024

QPS-SAR-7 TSUKUYOMI-II

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-066F
Name of the space object	QPS-SAR-7 TSUKUYOMI-II
State of registry	Japan
Other launching States	United States
Date and territory or location of launch	7 April 2024 at 2316 hours 0 seconds UTC; United States
Basic orbital parameters	
Nodal period	96.6 minutes
Inclination	45.6 degrees
Apogee	603 kilometres
Perigee	592 kilometres
General function of the space object	Earth observation by SAR

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	iQPS Inc.
Website	https://i-qps.net/
Launch vehicle	Falcon 9
Other information	Launched by SpaceX on 7 April 2024

KASHIWA

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067WH
Name of the space object	KASHIWA
State of registry	Japan
Other launching States	United States
Date and territory or location of launch	10 April 2024 at 2235 hours UTC; ISS

Basic orbital parameters	
Nodal period	92.73 minutes
Inclination	51.6416 degrees
Apogee	410 kilometres
Perigee	407 kilometres
General function of the space object	Camera mission: two onboard cameras will take day or night images of ISS, land and oceans Automatic Packet Reporting System (APRS) mission: sending APRS queries from the satellite to a specific amateur station with APRS capability and storing the responses Music of Geomagnetic (MoG) mission: transmitting ultra-high frequency (UHF) analogue frequency modulated (FM) signals containing sounds generated from a geomagnetic sensor

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Chiba Institute of Technology
Website	https://sites.google.com/view/gardens-02/english_ver/home?authuser=0
Launch vehicle	Falcon 9
Other information	Launched by a Falcon 9 rocket on 22 March 2024 UTC and transported to ISS by Cargo Dragon The date of deployment from ISS is 10 April 2024 UTC. The Japanese Experiment Module (JEM) Small Satellite Orbital Deployer (J-SSOD) is the location of deployment

CURTIS

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067WG
Name of the space object	CURTIS
State of registry	Japan
Other launching States	United States
Date and territory or location of launch	11 April 2024 at 0905 hours 12.363 seconds UTC; ISS
Basic orbital parameters	
Nodal period	92.48 minutes
Inclination	51.6 degrees
Apogee	398 kilometres
Perigee	394 kilometres

General function of the space object	CURTIS is a 3U-size CubeSat. The CubeSat has four missions. The first is a thermal mission to measure heat conduction inside the mission unit. The second is a camera mission to take pictures of the Earth. The third is a demonstration mission of a bus system integrated on a high-density integrated board. The fourth is an in-orbit demonstration mission for the 3U satellite system

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Panasonic Holdings Corporation
Website	https://news.panasonic.com/jp/press/jn240412-3
Launch vehicle	Falcon 9
Other information	CURTIS was launched by a Falcon 9 rocket on 22 March 2024 UTC and transported to ISS by a Cargo Dragon

MicroOrbiter-1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067WF
Name of the space object	MicroOrbiter-1
State of registry	Japan
Other launching States	United States
Date and territory or location of launch	11 April 2024 UTC; ISS
Basic orbital parameters	
Nodal period	90 minutes
Inclination	51.6347 degrees
Apogee	390.969 kilometres
Perigee	386.547 kilometres
General function of the space object	Satellite receives LoRa modulated sensor data from LoRa ground sensor terminals in 920MHz or 400MHz frequency band and then forwards the data to the Earth station

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Micro Orbiter Inc.
Website	www.MicroOrbiter.com
Launch vehicle	Falcon 9
Other information	The satellite was launched by a Falcon-9 rocket on 21 March 2024 and transported to ISS by Cargo Dragon. The satellite was deployed from ISS on 11 April 2024

Advanced Land Observing Satellite-4 (ALOS-4) “DAICHI-4”

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-123A
Name of the space object	Advanced Land Observing Satellite-4 (ALOS-4) “DAICHI-4”
State of registry	Japan
Date and territory or location of launch	1 July 2024 at 0306 hours 42 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	97 minutes
Inclination	97.9 degrees
Apogee	627.0 kilometres
Perigee	606.9 kilometres
General function of the space object	ALOS-4 is a satellite to observe the Earth’s surface using its onboard phased array type L-band synthetic aperture radar (PALSAR-3)

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	JAXA
Website	https://global.jaxa.jp/projects/sat/alos3/
Launch vehicle	H3 Launch Vehicle Flight No. 3
Other information	Launching organization is JAXA
	Basic orbital parameters are as at 1 July 2024

H-IIA Launch Vehicle Flight No. 47 Upper Stage

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-137E
Name of the space object	H-IIA Launch Vehicle Flight No. 47 Upper Stage
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	2,139 minutes
Inclination	30.61 degrees
Apogee	96,694 kilometres
Perigee	517 kilometres

General function of the space object	The H-IIA Launch Vehicle Flight No. 47 launched two payloads into orbit around the Earth. The payloads are XRSIM, an X-ray space telescope; and SLIM, an experimental lunar lander

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Other information	Launch organization is Mitsubishi Heavy Industries, Ltd.

Lower Satellite Fairing Adapter of H-IIA Launch Vehicle Flight No. 47

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-137C
Name of the space object	Lower Satellite Fairing Adapter of H-IIA Launch Vehicle Flight No. 47
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96 minutes
Inclination	31.0 degrees
Apogee	580 kilometres
Perigee	574 kilometres
General function of the space object	A part of Lower Satellite Fairing of H-IIA Launch Vehicle Flight No. 47.

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Other information	Launch organization is Mitsubishi Heavy Industries, Ltd.

Lower Satellite Fairing Cylinder No. 1 of H-IIA Launch Vehicle Flight No. 47

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-137F
Name of the space object	Lower Satellite Fairing Cylinder No. 1 of H-IIA Launch Vehicle Flight No. 47

State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96 minutes
Inclination	31.0 degrees
Apogee	580 kilometres
Perigee	574 kilometres
General function of the space object	A part of Lower Satellite Fairing of H-IIA Launch Vehicle Flight No. 47.

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Other information	Launch organization is Mitsubishi Heavy Industries, Ltd.

Lower Satellite Fairing Cylinder No. 2 of H-IIA Launch Vehicle Flight No. 47

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2023-137G
Name of the space object	Lower Satellite Fairing Cylinder No. 2 of H-IIA Launch Vehicle Flight No. 47
State of registry	Japan
Date and territory or location of launch	6 September 2023 at 2342 hours 11 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96 minutes
Inclination	31.0 degrees
Apogee	580 kilometres
Perigee	574 kilometres
General function of the space object	A part of Lower Satellite Fairing of H-IIA Launch Vehicle Flight No. 47.

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 47
Other information	Launch organization is Mitsubishi Heavy Industries, Ltd.

H3 Launch Vehicle Flight No. 2 Rocket Body (2nd Stage)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	-
Name of the space object	H3 Launch Vehicle Flight No. 2 Rocket Body (2nd Stage)
State of registry	Japan
Date and territory or location of launch	17 February 2024 at 0022 hours 55 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	98.3 minutes
Inclination	98.1150 degrees
Apogee	684.892 kilometres
Perigee	670.802 kilometres
General function of the space object	This space object is the spent rocket body of the H3 Launch Vehicle Flight No. 2. This object is the 2nd stage of the launch vehicle
Date of decay/re-entry/deorbit	17 February 2024 at 0209 hours 19 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	JAXA
Launch vehicle	H3 Launch Vehicle Flight No. 2.
Other information	Launching organization is JAXA
	Basic orbital parameters were as at payload separation
	For the rocket body (2nd Stage), measures such as installing a safety valve against internal pressure rise and controlled re-entry after one orbit after launch have been taken

H-IIA Launch Vehicle Flight No. 48 Upper Stage

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2024-010B
Name of the space object	H-IIA Launch Vehicle Flight No. 48 Upper Stage
State of registry	Japan
National designator/registration number	2024-010B
Date and territory or location of launch	12 January 2024 UTC; Tanegashima Space Center, Kagoshima, Japan

Basic orbital parameters	
Nodal period	94 minutes
Inclination	97.3 degrees
Apogee	487 kilometres
Perigee	463 kilometres
General function of the space object	Space object is the spent upper-stage of H-II A F48

H3 Launch Vehicle Flight No. 3 Rocket Body (2nd Stage)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	-
Name of the space object	H3 Launch Vehicle Flight No. 3 Rocket Body (2nd Stage)
State of registry	Japan
Date and territory or location of launch	1 July 2024 at 0306 hours 42 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	97.0 minutes
Inclination	97.8668 degrees
Apogee	624.856 kilometres
Perigee	607.416 kilometres
General function of the space object	The space object is a used rocket body of the H3 Launch Vehicle Flight No. 3. This object is the 2nd stage of the launch vehicle
Date of decay/re-entry/deorbit	1 July 2024 at 0452 hours 15 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	JAXA
Launch vehicle	H3 Launch Vehicle Flight No. 3
Other information	Launching organization is JAXA.
	Basic orbital parameters were as at payload separation.
	For the rocket body (2nd Stage), measures such as installing a safety valve against internal pressure rise and controlled re-entry after one orbit after launch have been taken

Annex II

Additional information on space objects previously registered by Japan*

ELSA-D Client

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

National designator/registration number	2021-022N-A
Name of the space object	ELSA-D CLIENT
State of registry	Japan
Registration document	ST/SG/SER.E/1073
Other launching States	Kazakhstan and Russian Federation
Date and territory or location of launch	22 March 2021 at 0607 hours 12.83 seconds UTC; Tyuratam (Baikonur Cosmodrome), Kazakhstan
Basic orbital parameters	
Nodal period	95.64 minutes
Inclination	97.55 degrees
Apogee	557 kilometres
Perigee	530 kilometres
General function of the space object	The End-of-Life Service by Astroscale (ELSA) programme is a spacecraft retrieval service for satellite operators. ELSA-d (demonstration) is the first mission to demonstrate the core technologies necessary for debris docking and removal ELSA-d consists of two spacecraft: a servicer satellite (~175kg) and a client satellite (~17kg), launched stacked together. The servicer satellite has been developed to safely remove debris objects from orbit, equipped with proximity rendezvous technologies and a magnetic docking mechanism. The client satellite is a piece of replica debris fitted with a ferromagnetic plate that enables docking. This registration is for the client satellite, which was first released on 25 August 2021 for a short period of time from the servicer satellite

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	23 June 2022 at 1350 hours 22 seconds UTC
Physical conditions when the space object was moved to a disposal orbit	The space object is not able to communicate due to its battery running out Without propellant, it is under natural orbital decay

* The information was submitted using the form prepared pursuant to General Assembly resolution 62/101 and has been reformatted by the Secretariat.

Space object owner or operator	Astroscale Japan Inc.
Website	https://astroscale.com/elsa-d/
Launch vehicle	Soyuz-2.1a launch vehicle with Fregat upper stage (launch of CAS500-1 with smallsats and cubesats)
Additional information	Basic orbital parameters show the position at the time of separation from the ELSA-d servicer satellite. The original parameters at launch were nodal period 95.58 minutes, inclination 97.56 degrees, apogee 559 kilometres and perigee 534 kilometres The ELSA-d servicer satellite and ELSA-d client satellite are separately licensed for their mission operations under the Outer Space Act (1986) of the United Kingdom of Great Britain and Northern Ireland and are controlled in the country under the regulations of the Act The operations team for the ELSA-d client satellite stopped tracking the spacecraft on 15 December 2022 at 0000 hours 0 seconds UTC as they were unable to communicate with it since 23 June 2022

KITSUNE

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067TK
Name of the space object	KITSUNE
State of registry	Japan
Registration document	ST/SG/SER.E/1073
Date and territory or location of launch	24 March 2022 at 1150 hours UTC; ISS
Basic orbital parameters	
Nodal period	87.8 minutes
Inclination	51.6 degrees
Apogee	195 kilometres
Perigee	192 kilometres
General function of the space object	1. Earth observation with 5-m class resolution colour images 2. Total electron content measurements in the ionosphere 3. Store-and-forward of remote sensor data from ground terminals to ground station 4. Demonstration of a C-band communication system
Date of decay/re-entry/deorbit	14 March 2023 at 1659 hours UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	14 March 2023 at 0740 hours UTC
Physical conditions when the space object was moved to a disposal orbit	KITSUNE re-entered and burned up in the atmosphere
Space object owner or operator	Kyushu Institute of Technology, Japan
Website	https://kitsat.net/kitsune/
Other information	Launched by an Antares rocket on 20 February 2022 and carried by the Cygnus NG-17 spacecraft to ISS Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

AOBA VELOX-IV

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-003J
Name of the space object	AOBA VELOX-IV
State of registry	Japan
Registration document	ST/SG/SER.E/1073
Date and territory or location of launch	18 January 2019 at 0050 hours 20 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	87.7 minutes
Inclination	97.0 degrees
Apogee	167 kilometres
Perigee	153 kilometres
General function of the space object	The main objective of this mission is a technological demonstration of the capturing of Earth glow images in low Earth orbit using a low-light camera and pulsed plasma thruster with a view to observing the lunar horizon glow during a future moon mission
Date of decay/re-entry/deorbit	24 March 2023 at 0253 hours UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	10 March 2023 at 1104 hours UTC
Physical conditions when the space object was moved to a disposal orbit	AOBA VELOX-IV re-entered and burned up in the atmosphere
Space object owner or operator	Kyushu Institute of Technology, Japan
Website	https://kitsat.net/av4/
Launch vehicle	Epsilon Launch Vehicle Flight No. 4 (Epsilon-4)
Other information	Launching organization is JAXA

Rapid Innovative payload demonstration Satellite-2 (RAISE-2)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102C
Name of the space object	Rapid Innovative payload demonstration Satellite-2 (RAISE-2)
State of registry	Japan
Registration document	ST/SG/SER.E/1073
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96.0 minutes
Inclination	97.6 degrees
Apogee	561.7 kilometres
Perigee	561.7 kilometres
General function of the space object	RAISE-2 is a technology demonstration satellite equipped with six experimental components provided by private companies, one university and one research institution. The technology demonstration aims to acquire various and innovative data in space

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	7 April 2023 at 0041 hours 17 seconds UTC
Space object owner or operator	Owner: JAXA Operator: Mitsubishi Electric Corporation (MELCO)

Website	www.kenkai.jaxa.jp/kakushin/kakushin02.html
Launch vehicle	Epsilon Launch Vehicle Flight No. 5 (Epsilon-5)
Other information	Launching organization is JAXA

Twenty-first Scientific Spacecraft, Infrared Astronomy Satellite (ASTRO-F) “AKARI”

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2006-005A
Name of the space object	Twenty-first Scientific Spacecraft, Infrared Astronomy Satellite (ASTRO-F) “AKARI”
State of registry	Japan
Registration document	ST/SG/SER.E/644
Date and territory or location of launch	21 February 2006 at 2128 hours UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96.1 minutes
Inclination	98.3 degrees
Apogee	696.1 kilometres
Perigee	448.8 kilometres
General function of the space object	Astronomical observations including an all-sky survey in the infrared wavelengths. The scientific objectives are especially focused on the investigation of the formation and evolution of galaxies and the formation processes of stars and planetary systems
Date of decay/re-entry/deorbit	11 April 2023 at 0444 hours UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	24 November 2011 at 0823 hours UTC
Space object owner or operator	JAXA
Launch vehicle	M-V Launch Vehicle (M-V-8)
Other information	Basic orbital parameters are as at 24 November 2011 Launching organization is JAXA ASTRO-F re-entered the atmosphere and decayed on 11 April 2023

ALE-2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-084A
Name of the space object	ALE-2
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Other launching States	New Zealand and United States
Date and territory or location of launch	6 December 2019 at 0818 hours 21 seconds UTC; Rocket Lab Launch Complex 1, New Zealand
Basic orbital parameters	
Nodal period	92.69 minutes
Inclination	97.1 degrees
Apogee	415 kilometres
Perigee	398 kilometres
General function of the space object	To create an artificial meteor shower, ALE-2 contains a release mechanism that deploys 400 particles, one at a time, in a controlled fashion, that become artificial meteors when they re-enter the atmosphere The mission details were presented at the thirty-sixth meeting of the Inter-Agency Space Debris Coordination Committee Working Group 4
Date of decay/re-entry/deorbit	19 April 2023 at 0705 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	4 April 2023 at 1941 hours 0 seconds UTC
Space object owner or operator	ALE Co., Ltd.
Website	http://star-ale.com/en/?ja
Launch vehicle	Electron Launch Vehicle Flight No. 10
Other information	Launched by Rocket Lab Inc. on 6 December 2019 ALE-2 aimed to make the world's first artificial meteors in 2020 ALE-2 re-entered the atmosphere and decayed on 19 April 2023

First Quasi-Zenith Satellite “Michibiki”

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2010-045A
Name of the space object	First Quasi-Zenith Satellite "Michibiki"
State of registry	Japan
National designator/registration number	2010-045A
Registration document	ST/SG/SER.E/620
Date and territory or location of launch	11 September 2010 at 1117 hours UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	41 degrees
Apogee	38,900 kilometres
Perigee	32,600 kilometres
General function of the space object	Michibiki’s missions are to develop, experiment with and verify satellite-based pointing, navigation and timing technologies in quasi-zenith orbit
Date of decay/re-entry/deorbit	14 September 2023 at 0520 hours 19 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	15 September 2023 at 0338 hours 41 seconds UTC
Date when the space object was moved to a disposal orbit	14 September 2023 at 0520 hours 19 seconds UTC
Physical conditions when the space object was moved to a disposal orbit	The orbit of the satellite is sufficiently above the geostationary orbit (GSO) region and the orbit will not interfere with the GSO region for 100 years The stored energy of the satellite has been minimized Venting residual propellants and passivation of batteries have been done after the end of the mission
Change of supervision of the space object	
Date of change in supervision	28 February 2017 UTC
Identity of the new owner or operator	Owner: The Cabinet Office of Japan Operator: Quasi-Zenith Satellite System Service Inc.
Space object owner or operator	Japan Aerospace Exploration Agency
Website	https://qzss.go.jp/en/

Launch vehicle	H-IIA Launch Vehicle Flight No. 18 (H-IIA, 18F)
Other information	Basic orbital parameters are as at 13 December 2010 The launching organizations are Mitsubishi Heavy Industries, Ltd. and JAXA

Outstanding Moon Exploration Technologies Demonstrated by Nano Semi-Hard Impactor (OMOTENASHI)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	-
Name of the space object	Outstanding Moon Exploration Technologies Demonstrated by Nano Semi-Hard Impactor (OMOTENASHI)
State of registry	Japan
Registration document	ST/SG/SER.E/1132
Other launching States	United States
Date and territory or location of launch	16 November 2022 at 0647 hours 0 seconds UTC; Kennedy Space Center of the National Aeronautics and Space Administration (NASA), United States
Basic orbital parameters	
Nodal period	14,400 minutes
Inclination	30 degrees
Apogee	377,400 kilometres
Perigee	530 kilometres
General function of the space object	OMOTENASHI demonstrates CubeSat lunar landing technologies. Because its original plan to land on the lunar surface had failed, the technologies were demonstrated in a heliocentric orbit. The orbiter carried the rocket motor and the surface probe The rocket motor was planned to be used to cancel the velocity of the Surface Probe in the vicinity of the Moon. The plan was changed to the conduct of an ignition experiment of the rocket motor in orbit

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	25 September 2023 UTC
Space object owner or operator	JAXA
Launch vehicle	Space Launch System (SLS) Launch Vehicle
Other information	Basic orbital parameters described are as at 16 November 2022, which is the time of separation from SLS

	Launching organization is NASA
	The spacecraft failed autonomous sun acquisition control and its battery was depleted. The search and recovery operation had been conducted since then but it was terminated in September 2023

ALE-1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-003G
Name of the space object	ALE-1
State of registry	Japan
Registration document	ST/SG/SER.E/902
Date and territory or location of launch	18 January 2019 at 0050 hours 20 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	94.53 minutes
Inclination	97.3201 degrees
Apogee	508.101 kilometres
Perigee	479.497 kilometres
General function of the space object	To create an artificial meteor shower, ALE-1 contains a release mechanism that ejects 400 particles, one at a time and in a controlled fashion, that become artificial meteors when they re-enter the atmosphere
	ALE-1 also includes a deorbit mechanism to lower its altitude from the insertion altitude at launch, 500 km, to an operational altitude of 400 km, below the International Space Station. ALE-1 will detach the deorbit mechanism after it reaches its operation altitude
	The mission's details were presented at the thirty-sixth meeting of Inter-Agency Space Debris Coordination Committee Working Group 4 (IADC WG4)
Date of decay/re-entry/deorbit	4 October 2023 at 0222 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	ALE Co., Ltd.
Website	http://star-ale.com/en/?ja
Launch vehicle	Epsilon Launch Vehicle Flight No. 4 (Epsilon-4)

Other information	Launched by JAXA The use of the deorbit mechanism and the initial release of the particles are planned according to the following timetable: Deorbit mechanism: April 2019–February 2020 (open, down to operational altitude, detach) Particles: March–July 2020 (subsequently, particles will be released in connection with specific events) It re-entered the atmosphere on 4 October 2023 and disappeared

JCSAT-16

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2016-050A
Name of the space object	JCSAT-16
State of registry	Japan
Registration document	ST/SG/SER.E/812
Other launching States	United States
Date and territory or location of launch	14 August 2016 at 0526 hours UTC; Cape Canaveral, Florida, United States
Basic orbital parameters	
Nodal period	1,440 minutes
Inclination	0.013 degrees
Apogee	35,802 kilometres
Perigee	35,783 kilometres
General function of the space object	Satellite telecommunications

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Geostationary position	144 degrees East
Change of orbital position	
on 29 June 2023	93 degrees East to 136 degrees East
on 24 October 2023	136 degrees East to 144 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Falcon 9
Other information	Launch organization is Space Exploration Technologies Corporation

StriX-α

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2020-098A
Name of the space object	StriX-α
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Other launching States	New Zealand and United States
Date and territory or location of launch	15 December 2020 at 1009 hours 26 seconds UTC; Mahia Peninsula, New Zealand
Basic orbital parameters	
Nodal period	94.70 minutes
Inclination	97.38 degrees
Apogee	513 kilometres
Perigee	495 kilometres
General function of the space object	StriX-α is the first SAR satellite made by Synspective Inc. to test the capability of the company's SAR imaging (remote sensing) technology, including the uplink and downlink functionality and antenna signal strength
Date of re-entry	27 October 2023 at 1525 hours 36 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Synspective Inc.
Website	https://synspective.com/
Launch vehicle	Electron (seventeenth mission)
Other information	Launched by Rocket Lab on 15 December 2020

NEXUS

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-003F
Name of the space object	NEXUS
State of registry	Japan
Registration document	ST/SG/SER.E/966
Date and territory or location of launch	18 January 2019 at 0050 hours 20 seconds UTC; Uchinoura Space Center, Kagoshima, Japan

Basic orbital parameters	
Nodal period	93.5 minutes
Inclination	97.3 degrees
Apogee	508.5 kilometres
Perigee	488.5 kilometres
General function of the space object	NEXUS is a 10 cm cubic amateur satellite. The aim of the mission is to give a demonstration using transmitters and a linear transponder in the space environment
Date of decay/re-entry/deorbit	10 November 2023 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	8 November 2023 UTC
Physical conditions when the space object was moved to a disposal orbit	The batteries were discharged to avoid break-ups
Space object owner or operator	Nihon University
Launch vehicle	Epsilon Launch Vehicle Flight No. 4
Other information	Launched by JAXA
	NEXUS re-entered the atmosphere and decayed

Exposed Pallet of HTV9

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067RZ
Name of the space object	Exposed Pallet of HTV9
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Other launching States	United States
Date and territory or location of launch	20 May 2020 at 1731 hours UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	92.98 minutes
Inclination	51.75 degrees
Apogee	427.96 kilometres
Perigee	412.98 kilometres
General function of the space object	This payload was launched as part of a component of HTV9 to transport exposed cargo to ISS
Date of re-entry and decay	8 March 2024 at 1929 hours UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	11 March 2021 at 1330 hours UTC
Space object owner or operator	JAXA
Launch vehicle	H-IIB Launch Vehicle Flight No. 9
Other information	The exposed pallet was separated from ISS on 11 March 2021 at 1330 hours UTC Basic orbital parameters described are as at 11 March 2021 The exposed pallet has no battery and its orbit is estimated to decay within 25 years

WNISAT-1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2013-066H
Name of the space object	WNISAT-1
State of registry	Japan
Registration document	ST/SG/SER.E/735
Other launching States	Russian Federation
Date and territory or location of launch	21 November 2013 at 0710 hours 10 seconds UTC; Yasny Launch Base, Orenburg Region, Russia
Basic orbital parameters	
Nodal period	99 minutes
Inclination	97.7 degrees
Apogee	849 kilometres
Perigee	593 kilometres
General function of the space object	Sea ice monitoring of the Arctic Sea and other areas CO2 monitoring
Date of decay/re-entry/deorbit	25 March 2024 at 1500 hours 0 second UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Weathernews Inc.
Launch vehicle	DNEPR
Other information	Basic orbital parameters are as at 25 November 2013 Launching organization is ISC Kosmotras

Equilibrium Lunar-Earth Point 6U Spacecraft (EQUULEUS)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2022-156E
Name of the space object	Equilibrium Lunar-Earth Point 6U Spacecraft (EQUULEUS)
State of registry	Japan
Registration document	ST/SG/SER.E/1132
Other launching States	United States
Date and territory or location of launch	16 November 2022 at 0647 hours 0 seconds UTC; Kennedy Space Center of NASA, United States
Basic orbital parameters	
Nodal period	14,400 minutes
Inclination	30 degrees
Apogee	377,400 kilometres
Perigee	530 kilometres
General function of the space object	EQUULEUS is a JAXA and University of Tokyo technology demonstration mission with the primary objective of demonstrating trajectory control techniques exploiting Sun-Earth-Moon dynamics, with the possibility of reaching an Earth-Moon libration orbit. It will also perform scientific observations with a suite of instruments

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	9 April 2024 at 1328 hours 8 seconds UTC
Space object owner or operator	JAXA
Launch vehicle	SLS Launch Vehicle
Other information	Basic orbital parameters are as at 16 November 2022, which is the time of separation from SLS The launching organization is NASA Due to sudden communication loss with EQUULEUS and due to difficulty of recovery, operations were terminated

QPS-SAR-2 Izanami

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-006CA
Name of the space object	QPS-SAR-2 Izanami
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Other launching States	United States
Date and territory or location of launch	24 January 2021 at 1500 hours 0 seconds UTC; United States
Basic orbital parameters	
Nodal period	95.22 minutes
Inclination	97.5 degrees
Apogee	536 kilometres
Perigee	522 kilometres
General function of the space object	Earth observation
Date of decay/re-entry/deorbit	11 April 2024 at 1426 hours UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	11 April 2024 at 1250 hours UTC
Space object owner or operator	Institute for Q-shu Pioneers of Space, Inc.
Launch vehicle	Falcon 9
Other information	Launched by SpaceX on 24 January 2021

H-IIA Launch Vehicle Flight No. 33 Rocket Body

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2017-015B
Name of the space object	H-IIA Launch Vehicle Flight No. 33 Rocket Body
State of registry	Japan
Registration document	ST/SG/SER.E/869
Date and territory or location of launch	17 March 2017 UTC; Tanegashima Space Center, Kagoshima, Japan

Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.4 degrees
Apogee	514 kilometres
Perigee	496 kilometres
General function of the space object	Space object is the spent rocket body of H-IIA F33
Date of re-entry and decay	10 December 2023 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 33 (H-IIA F33)
Other information	Launching organizations are Mitsubishi Heavy Industries, Ltd. and JAXA

H-IIA Launch Vehicle Flight No. 38 Rocket Body

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2018-021B
Name of the space object	H-IIA Launch Vehicle Flight No. 38 Rocket Body
State of registry	Japan
Registration document	ST/SG/SER.E/869
Date and territory or location of launch	27 February 2018 UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.4 degrees
Apogee	513 kilometres
Perigee	498 kilometres
General function of the space object	The space object is the spent rocket body of H-IIA F38
Date of decay/re-entry/deorbit	27 April 2024 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries,Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 38 (H-IIA F38)
Other information	Launching organizations are Mitsubishi Heavy Industries, Ltd. and JAXA H-IIA F38 Rocket Body re-entered the atmosphere and decayed on 27 April 2024

H-IIA Launch Vehicle Flight No. 39 Rocket Body

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2018-052B
Name of the space object	H-IIA Launch Vehicle Flight No. 39 Rocket Body
State of registry	Japan
Registration document	ST/SG/SER.E/851
Date and territory or location of launch	12 June 2018 UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.4 degrees
Apogee	516 kilometres
Perigee	497 kilometres
General function of the space object	Space object is the spent Rocket Body of H-IIA F39
Date of decay/re-entry/deorbit	8 December 2023 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No. 39 (H-IIA F39)
Other information	Launching organizations are Mitsubishi Heavy Industries, Ltd. and JAXA H-IIA F39 Rocket Body re-entered the atmosphere and decayed on 8 December 2023

JCSAT-1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1989-020A
Name of the space object	JCSAT-1
State of registry	Japan
Registration document	ST/SG/SER.E/224
Other launching States	France and United States
Date and territory or location of launch	6 March 1989 at 1129 hours 0 seconds UTC; Kourou Space Centre, French Guiana

Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.017 degrees
Apogee	35,796 kilometres
Perigee	35,780 kilometres
General function of the space object	Domestic communication

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	21 August 1998 at 0000 hours 0 seconds UTC
Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 198 km above geostationary orbit and all satellite systems were shutdown
	Fuel depletion operations were carried out normally
	Battery charge termination operations were carried out normally
Geostationary position	150 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane 29 (Ariane IV)
Other information	Launch organization is Arianespace

JCSAT-2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1990-001B
Name of the space object	JCSAT-2
State of registry	Japan
Registration document	ST/SG/SER.E/224
Other launching States	United States
Date and territory or location of launch	1 January 1990 at 0007 hours 0 seconds UTC; Cape Canaveral Air Force Station, United States
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.049 degrees
Apogee	35,796 kilometres
Perigee	35,778 kilometres
General function of the space object	Domestic communication

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	4 July 2002 at 0000 hours 0 seconds UTC
Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 236 km above geostationary orbit and all satellite systems were shutdown
	Fuel deplete operation has been done normally
	Battery charge termination operations were carried out normally
Geostationary position	154 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	TITAN II
Other information	Launch organization is Martin Marietta

Superbird-B

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1992-010A
Name of the space object	Superbird-B
State of registry	Japan
Registration document	ST/SG/SER.E/252
Other launching States	France
Date and territory or location of launch	26 February 1992 at 2358 hours 0 seconds UTC; Kourou Space Centre, French Guiana
Basic orbital parameters	
Nodal period	1,436 minutes 8.7 seconds
Inclination	0.0416574 degrees
Apogee	35,806.8028 kilometres
Perigee	35,768.2650 kilometres
General function of the space object	Domestic communication
Date of decay/re-entry/de-orbit	24 July 2001 at 0514 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	26 July 2001 at 2354 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	24 July 2001 at 0514 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 277 km above geostationary orbit and all satellite systems were shutdown Fuel depletion operations were carried out normally Battery charge termination operations were carried out normally
Geostationary position	162 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane 4 rocket
Other information	Launching organization is Arianespace

Superbird-A1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1992-084A
Name of the space object	Superbird-A1
State of registry	Japan
Registration document	ST/SG/SER.E/264
Other launching States	France
Date and territory or location of launch	1 December 1992 at 2248 hours 0 seconds UTC; Kourou Space Centre, French Guiana
Basic orbital parameters	
Nodal period	1,436 minutes 11.8 seconds
Inclination	0.00155397 degrees
Apogee	35,806.080 kilometres
Perigee	35,771.035 kilometres
General function of the space object	Domestic communication
Date of decay/re-entry/de-orbit	15 December 2008 at 1212 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	17 December 2008 at 0738 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	15 December 2008 at 1212 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 290 km above geostationary orbit and all satellite systems were shutdown
	Fuel depletion operations were carried out normally
	Battery charge termination operations were carried out normally
Geostationary position	158 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane 4
Other information	Launching organization is Arianespace

JCSAT-3

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1995-043A
Name of the space object	JCSAT-3
State of registry	Japan
Registration document	ST/SG/SER.E/299
Date and territory or location of launch	29 August 1995 at 0053 hours 0 seconds UTC; Cape Canaveral Air Force Base, Florida, United States
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.003 degrees
Apogee	35,789 kilometres
Perigee	35,784 kilometres
General function of the space object	Domestic telecommunications
	International telecommunications
	Entrusted domestic broadcasting
	Entrusted domestic and overseas broadcasting
Date of decay/re-entry/de-orbit	19 February 2007 at 0328 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	22 February 2007 at 2213 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	19 February 2007 at 0328 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 252 km above geostationary orbit and all satellite systems were shutdown Fuel depletion operations were carried out normally Battery charge termination operations were carried out normally
Geostationary position	128 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Atlas-IIAS
Other information	Launch organization is Lockheed Martin Commercial Launch Services Inc.

N-STARa

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1995-044A
Name of the space object	N-STARa
State of registry	Japan
Registration document	ST/SG/SER.E/299
Date and territory or location of launch	29 August 1995 at 0641 hours 0 seconds UTC; Kourou Space Centre, French Guiana
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.04 degrees
Apogee	35,799 kilometres
Perigee	35,776 kilometres
General function of the space object	Domestic telecommunications
Date of decay/re-entry/de-orbit	21 August 2006 at 0900 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	25 August 2006 at 1240 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	21 August 2006 at 0900 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 314 km above geostationary orbit and all satellite systems were shutdown
	Fuel depletion operations were carried out normally
	Battery charge termination operations were carried out normally
Geostationary position	132 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane Rocket Flight 77 (Ariane-44P)
Other information	Launch organization is Arianespace

N-STARb

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1996-007A
Name of the space object	N-STARb
State of registry	Japan
Registration document	ST/SG/SER.E/308
Other launching States	France and United States
Date and territory or location of launch	5 February 1996 at 0719 hours 0 seconds UTC; Kourou Space Centre, French Guiana
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.05 degrees
Apogee	35,799 kilometres
Perigee	35,774 kilometres
General function of the space object	Domestic telecommunications
Date of decay/re-entry/de-orbit	24 May 2007 at 0400 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	31 May 2007 at 1710 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	24 May 2007 at 0400 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 272 km above geostationary orbit and all satellite systems were shutdown Fuel depletion operations were carried out normally Battery charge termination operations were carried out normally
Geostationary position	136 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane Rocket Flight 83 (Ariane-44P)
Other information	Launch organization is Arianespace

Superbird-C

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1997-036A
Name of the space object	Superbird-C
State of registry	Japan
Registration document	ST/SG/SER.E/337
Other launching States	United States
Date and territory or location of launch	28 July 1997 at 0115 hours 0 seconds UTC; United States, Florida (Cape Canaveral)
Basic orbital parameters	
Nodal period	1,436.09 minutes
Inclination	0.02655 degrees
Apogee	35,791.92 kilometres
Perigee	35,780.90 kilometres
General function of the space object	Domestic and international communications
Date of decay/re-entry/de-orbit	8 November 2015 at 2300 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	3 December 2015 at 0936 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	8 November 2015 at 2300 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 295 km above geostationary orbit and all satellite systems were shutdown Fuel depletion operations were carried out normally Battery charge termination operations were carried out normally
Geostationary position	158 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Atlas IIAS
Other information	Launch organization is Lockheed Martin Commercial Launch Services Inc.

JCSAT-5

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1997-075A
Name of the space object	JCSAT-5
State of registry	Japan
Registration document	ST/SG/SER.E/337
Other launching States	France
Date and territory or location of launch	2 December 1997 at 2252 hours 0 seconds UTC; French Guiana (Kourou)
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.013 degrees
Apogee	35,792 kilometres
Perigee	35,783 kilometres
General function of the space object	Domestic and international communications
Date of decay/re-entry/de-orbit	6 July 2017 at 0000 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	19 July 2017 at 0409 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	6 July 2017 at 0000 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 370 km above geostationary orbit and all satellite systems were shutdown
	Fuel depletion operations were carried out normally
	Battery charge termination operations were carried out normally
Geostationary position	150 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane 44P
Other information	Launch organization is Arianespace

Superbird-B2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2000-012A
Name of the space object	Superbird-B2
State of registry	Japan
Registration document	ST/SG/SER.E/407
Other launching States	France
Date and territory or location of launch	18 February 2000 at 0104 hours 0 seconds UTC; Guiana Space Centre, Kourou, French Guiana
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.026 degrees
Apogee	35,788 kilometres
Perigee	35,779 kilometres
General function of the space object	Domestic and international communications
Date of decay/re-entry/de-orbit	1 June 2018 at 0700 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	14 June 2018 at 1154 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	1 June 2018 at 0700 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 345 km above geostationary orbit and all satellite systems were shutdown
	Fuel depletion operations were carried out normally
	Battery charge termination operations were carried out normally
Geostationary position	162 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane 4
Other information	Launch organization is Arianespace

Superbird-A2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2004-011A
Name of the space object	Superbird-A2
State of registry	Japan
Registration document	ST/SG/SER.E/471
Other launching States	United States
Date and territory or location of launch	16 April 2004 at 0045 hours 0 seconds UTC; Cape Canaveral Air Force Station, United States
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.033 degrees
Apogee	35,800 kilometres
Perigee	35,779 kilometres
General function of the space object	Domestic telecommunications
	National telecommunications
Date of decay/re-entry/de-orbit	25 March 2005 at 1600 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when the space object was no longer functional	12 April 2005 at 0816 hours 0 seconds UTC
Date when the space object was moved to a disposal orbit	25 March 2005 at 1600 hours 0 seconds UTC

Physical conditions when the space object was moved to a disposal orbit	Satellite achieved disposal altitude of 218 km above geostationary orbit and all satellite systems were shutdown Fuel depletion operations were carried out normally Battery charge termination operations were carried out normally
Geostationary position	158 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Atlas IIAS
Other information	Launch organization is International Launch Services