

## Avaruusesineiden rekisteri / Register över rymdföremål / Registry of Space Objects

Avaruusesine / Rymdobject / Space Object	Toiminnanharjoittaja / Verksamhetsutövaren / Operator	Lähtetäjävaltio (t) / Utsändande stat (er) / Launching State (s)	Kansallinen rekisterinumero / National Register number / National Registration number	Tunniste / Beteckning / Designator	Avaruusesineen yleinen tarkoitus/Rymdföremålets allmänna syfte/General Object	Laukaisu-aika / Tidpunkt för utsändande / Time of launch	Laukaisu-paikka / Plats för utsändande / Place of launch	Laukaisu-väline/Upp-sändningsanläggning / Launch Vehicle	Kiertoaika / Omloppstid / Nodal Period	Kaltevuuskulma / Banplanets lutning / Inclination	Etäpiste / Apo-geum / Apogee	Lähipiste / Peri-geum / Perigee	Palannut ilmakehään / Hajoaminen / Återvänt till atmosfären / Förfall / Reentry/Decay	Lisätietoja / Ytterligare uppgifter / Additional information
<b>Aalto 1</b>	Aalto yliopisto / Aalto University	Suomi / Finland, Intia / India	FIN-1-SAT-2017	NSSDCA/ COSPAR ID: 2017-036L; NORAD Catalog Number: 42775	Aalto-1 is an educational satellite project with mission goal in technology demonstration of three payloads; demonstration of miniature hyperspectral Earth Observation camera; demonstration of miniature radiation monitoring instrument; demonstration of electrostatic deorbiting device.	23.6.2017	Satish Dhawan Space Centre, Sriharikota, India	ISRO PSLV-XL	94.71 min	97.45°	513 km	503 km		
<b>ICEYE-X1</b>	Iceye Oy	Suomi / Finland, Intia / India	FIN-2-SAT-2018	COSPAR ID: 2018-004D	Experimental satellite, carrying a synthetic aperture radar. Data will be provided commercially.	12.1.2018, 03:59 UTC	Satish Dhawan Space Centre, Sriharikota, India	PSLV-XL C40	95 min	97.56°	511 km	499 km		ICEYE-X1 was non-operational as at 12 June 2018.
<b>Reaktor Hello World</b>	Reaktor Space Lab/ Reaktor Radio Actives	Suomi / Finland, Intia / India	FIN-3-SAT-2018	COSPAR: 2018-096AA	2U CubeSat designed for peaceful demonstration purposes.	29.11.2018, 04:27:30 UTC	Sriharikota, India	ISRO/Antrix PSLV	94.35 min	97.5°	499 km	476 km		
<b>ICEYE-X2</b>	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-4-SAT-2018	COSPAR: 2018-099AU	Experimental satellite, carrying a synthetic aperture radar. Data will be provided commercially.	3.12.2018, 18:34:11 UTC	Vandenberg AFB, USA	Falcon 9 v1.2b5 65	96 min	97.7°	600 km	580 km		
<b>Suomi100</b>	Aalto yliopisto / Aalto University	Suomi / Finland, Yhdysvallat / USA	FIN-5-SAT-2018	COSPAR: 2018-099AY	Space weather and ionosphere research.	3.12.2018, 18:34 UTC	Vandenberg AFB/ Western Test Range, USA	Falcon 9	96.40 min	97.86°	609 km	577 km		
<b>ICEYE-X4</b>	Iceye Oy	Suomi / Finland,	FIN-6-SAT-2019	COSPAR: 2019-038D	Experimental satellite, carrying a synthetic	5.7.2019, 05:41:46 UTC	Vostochny Cosmo-	Soyuz-2-1b Fregat-M 1901	96 min	97.68°	600 km	580 km		

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		Venäjä / Russia			aperture radar. Data will be provided commercially.		drome, Russia							
ICEYE-X5	Iceye Oy	Suomi / Finland, Venäjä / Russia	FIN-7-SAT-2019	COSPAR: 2019-038C	Experimental satellite, carrying a synthetic aperture radar. Data will be provided commercially.	5.7.2019, 05:41:46 UTC	Vostochny Cosmodrome, Russia	Soyuz-2-1b Fregat-M 1901	96 min	97.68°	600 km	580 km		ICEYE-X5 was non-operational as at 20 April 2022.
ICEYE-X6	Iceye Oy	Suomi / Finland, Venäjä / Russia	FIN-8-SAT-2020	NSSDCA/ COSPAR ID: 2020-068M NORAD ID: 46497	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	28.9.2020 11:20:32 UTC	Plesetsk Cosmodrome, Russia	Soyuz-2-1b Fregat-M	95.75 min	97.6°	565.09 km	565.09 km		
ICEYE-X7	Iceye Oy	Suomi / Finland, Venäjä / Russia	FIN-9-SAT-2020	NSSDCA /COSPAR ID: 2020-068L NORAD ID: 46496	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	28.9.2020 11:20:32 UTC	Plesetsk Cosmodrome, Russia	Soyuz-2-1b Fregat-M	95.75 min	97.6°	565.09 km	565.09 km		
ICEYE-X8	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-10-SAT-2021	2021-006DB	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	24.1.2021 14:40 UTC	Cape Canaveral	Falcon 9	95.24 min	97.5°	538 km	523 km		
ICEYE-X9	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-11-SAT-2021	2021-006CX	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	24.1.2021 14:40 UTC	Cape Canaveral	Falcon 9	95.24 min	97.5°	538 km	523 km		
ICEYE-X11	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-12-SAT-2021	2021-059AR	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	30.6.2021 19:31 UTC	Cape Canaveral	Falcon 9	95 min	97.499°	528 km	522 km		
ICEYE-X12	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-13-SAT-2021	2021-059AM	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	30.6.2021 19:31 UTC	Cape Canaveral	Falcon 9	95 min	97.498°	528 km	523.8 km		
ICEYE-X13	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-14-SAT-2021	2021-059AP	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	30.6.2021 19:31 UTC	Cape Canaveral	Falcon 9	95 min	97.498°	528 km	523.4 km		
ICEYE-X15	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-15-SAT-2021	2021-059AQ	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	30.6.2021 19:31 UTC	Cape Canaveral	Falcon 9	95 min	97.499°	528.1 km	523.1 km		

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<b>W-Cube</b>	Reaktor Space Lab	Suomi / Finland, Yhdysvallat / USA	FIN-16-SAT-2021	2021-059CQ	3U CubeSat for atmospheric and ionospheric channel propagation characterization at W-band.	30.6.2021 19:31 UTC	Cape Canaveral, USA	Falcon 9	95.24 min	97.5°	547.3 km	526.8 km		The object was launched from the United States and subsequently deployed in space: Space-based deployment from: D-Orbit ION-SCV 003, Italy Deployment: 22.07.2021 17:01 (UTC)
<b>Sunstorm</b>	Reaktor Space Lab	Suomi / Finland, Ranska / France	FIN-17-SAT-2021	2021-073C	2U CubeSat for demonstrating a new solar X-ray flux monitor to detect coronal mass ejections and solar flares from the Sun.	17.8.2021 1:47 UTC	Kourou, French Guiana, France	Vega	95.55 min	97.56°	564 km	526 km		
<b>ICEYE-X16</b>	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-18-SAT-2022	2022-002AA	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	13.1.2022 15:25 UTC	Cape Canaveral, Florida	Falcon 9	95.20 min	97.50°	536 km	521 km		
<b>AuroraSat-1</b>	Aurora Propulsion Technologies	Suomi / Finland, Uusi-Seelanti / New Zealand	FIN-19-SAT-2022	TBC	Technology demonstrator. The mission will include the deployment of up to two microtethers less than 60 m in length.	2.5.2022 22:49 UTC	Mahia Peninsula, New Zealand	Rocket Lab Electron	TBC	TBC	TBC	TBC		AuroraSat-1 was non-operational as at 2 May 2022.
<b>ICEYE-X20</b>	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-20-SAT-2022	2022-057AD	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	25.5.2022 18:35 UTC	Cape Canaveral, Florida	Falcon 9	95.2 min	97.5°	543.3 km	525.8 km		
<b>Foresail-1</b>	Aalto yliopisto / Aalto University	Suomi / Finland, Yhdysvallat / USA	FIN-21-SAT-2022	TBC	3U CubeSat mission by the Finnish Center of Excellence in Research of Sustainable Space. Mission goals are to monitor the near Earth radiation environment and to demonstrate an	25.5.2022 18:35 UTC	Cape Canaveral, USA	Falcon 9	TBC	TBC	TBC	TBC		Foresail-1 was non-operational as at 10 June 2022.

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					electrostatic deorbiting device.									
<b>ICEYE-X21</b>	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-22-SAT-2023	2023-001AS	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	03.01.2023 14:46 UTC	Cape Canaveral, Florida, USA	Falcon 9	95.1 min	97.5°	537 km	517 km		
<b>ICEYE-X23</b>	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-23-SAT-2023	2023-084T	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	12.06.2023 21:35 UTC	Vandenberg, California , USA	Falcon 9	95.2 min	97.5°	543 km	525 km		
<b>ICEYE-X25</b>	Iceye Oy	Suomi / Finland, Yhdysvallat / USA	FIN-24-SAT-2023	2023-084AH	Earth observation satellite, carrying a synthetic aperture radar. Data will be provided commercially.	12.06.2023 21:35 UTC	Vandenberg, California , USA	Falcon 9	95.1 min	97.5°	542 km	522 km		