



**Information furnished in conformity with the Convention
on Registration of Objects Launched into Outer Space****Note verbale dated 5 June 2023 from the Permanent Mission
of China to the United Nations (Vienna) addressed to the
Secretary-General**

The Permanent Mission of China 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 concerning 170 space objects launched by China in 2021 and 2022 (see annex).¹

¹ The data on the space objects referenced in the annex were entered into the Register of Objects Launched into Outer Space on 11 July 2023.



[Original: Chinese]

Registration information on space objects launched by China*

Committee on Space Research international designator	Name of the space object	State of Registry	Date of the launch (UTC)	Location of the launch	Basic orbital parameters				General function of the space object	Additional voluntary information			
					Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)		Date of decay/ re-entry/ deorbit	Geostationary position (degrees East)	Owner or operator	Launch vehicle
2021-043A	Haiyang-2D (HY-2D)	China	19 May 2021	JSLC	104.1	66	945	945	Earth observation	-	-	China	CZ-4B
2021-047A	Fengyun-4B (FY-4B)	China	2 June 2021	XSLC	1 437	0±0.3	35 787.5	35 787.5	To ensure the continuity and stability of observation operations by the geostationary meteorological satellites of China, obtain multi-spectral, high-frequency and high-precision quantitative observation data and images of the Earth's surface and clouds, observe the vertical structure of atmospheric temperature and humidity parameters, broadcast and distribute satellite images, remote sensing data and products, issue severe weather warning information and provide observation data for space weather forecasting operations and research	-	123.5	China	CZ-3B
2021-061A	Jilin-1 Kuanfu-01B	China	3 July 2021	TSLC	95.339	97.54	535	535	To obtain video images of the Earth by means of remote sensing	-	-	China	CZ-2D
2021-061B	Jilin-01 Gaofen 3D-01	China	3 July 2021	TSLC	95.339	97.54	535	535	To obtain video images of the Earth by means of remote sensing	-	-	China	CZ-2D
2021-061C	Jilin-01 Gaofen 3D-02	China	3 July 2021	TSLC	95.339	97.54	535	535	To obtain video images of the Earth by means remote sensing	-	-	China	CZ-2D
2021-061D	Jilin-01 Gaofen 3D-03	China	3 July 2021	TSLC	95.339	97.54	535	535	To obtain video images of the Earth by means of remote sensing	-	-	China	CZ-2D
2021-061E	Xingshidai 10	China	3 July 2021	TSLC	90	97.5	535	535	For Earth observation and imaging from space	-	-	China	CZ-2D

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

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2021-062A	Fengyun-3E (FY-3E)	China	4 July 2021	JSLC	101.496	98.75	830	830	Operating in a sun-synchronous dawn-dusk orbit, FY-3E is equipped with comprehensive capabilities for monitoring the Earth's meteorology and environment in a global, all-weather, hyperspectral, three-dimensional and quantitative manner, and is mainly used for weather forecasting, climate prediction, environmental monitoring and disaster prevention and mitigation	-	-	China	CZ-4C	
2021-063A	Tianlian 1-05	China	6 July 2021	XSLC	1 436.05	2.61	35 805	35 766	Communications satellite	-	-	China	CZ-3C	
2021-064A	Zhongzi Satellite Constellation Group-02 Satellite-01 (Ningxia 1 6)	China	9 July 2021	TSLC	102.5	45	870	870	Earth remote sensing	-	-	China	CZ-6A	
2021-064B	Zhongzi Satellite Constellation Group-02 Satellite-02 (Ningxia 1 7)	China	9 July 2021	TSLC	102.5	45	870	870	Earth remote sensing	-	-	China	CZ-6A	
2021-064C	Zhongzi Satellite Constellation Group-02 Satellite-03 (Ningxia 1 8)	China	9 July 2021	TSLC	102.5	45	870	870	Earth remote sensing	-	-	China	CZ-6A	
2021-064D	Zhongzi Satellite Constellation Group-02 Satellite-04 (Ningxia 1 9)	China	9 July 2021	TSLC	102.5	45	870	870	Earth remote sensing	-	-	China	CZ-6A	
2021-064E	Zhongzi Satellite Constellation Group-02 Satellite-05 (Ningxia 1 10)	China	9 July 2021	TSLC	102.5	45	870	870	Earth remote sensing	-	-	China	CZ-6A	
2021-065A	Yaogan-30 Group-10 Satellite-28 (Yaogan-30 AD)	China	19 July 2021	XSLC	96.64	35	602	593	Remote sensing satellite	-	-	China	CZ-2C	
2021-065C	Yaogan-30 Group-10 Satellite-29 (Yaogan-30 AE)	China	19 July 2021	XSLC	96.64	35	598	597	Remote sensing satellite	-	-	China	CZ-2C	

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2021-065D Yaogan-30 Group-10 Satellite-30 (Yaogan-30 AF)	China	19 July 2021	XSLC	96.64	35	601	595	Remote sensing satellite	-	-	China	CZ-2C	
2021-067A Tianhui 1-04	China	29 July 2021	JSLC	94.46	97.57	501	483	Remote sensing satellite	-	-	China	CZ-2D	
2021-070A Multimedia Beta Test Satellite-A (GMS-BETA-A)	China	4 Aug. 2021	TSLC	106	89	1 050	1 050	Remote sensing imaging of the Earth and Ka-band signal transmission	-	-	China	CZ-6A	
2021-070B Multimedia Beta Test Satellite-B (GMS-BETA-B)	China	4 Aug. 2021	TSLC	106	89	1 050	1 050	Remote sensing imaging of the Earth and Ka-band signal transmission	-	-	China	CZ-6A	
2021-071A ChinaSat-2E	China	5 Aug. 2021	XSLC	1 436.11	0.05	35 799	35 775	Communications satellite	-	-	China	CZ-3B	
2021-074A Tianhui-2 Group-02 Satellite-A (Tianhui 2-02A)	China	18 Aug. 2021	TSLC	94.94	97.45	517	514	Remote sensing satellite	-	-	China	CZ-4B	
2021-074B Tianhui-2 Group-02 Satellite-B (Tianhui 2-02B)	China	18 Aug. 2021	TSLC	94.94	97.45	517	514	Remote sensing satellite	-	-	China	CZ-4B	
2021-076A Integration Test Satellite 01 (RSW01)	China	24 Aug. 2021	JSLC	107.4	86.5	1 100	1 100	Satellite communications	-	-	China	CZ-2C	
2021-076C Integration Test Satellite 02 (RSW02)	China	24 Aug. 2021	JSLC	107.4	86.5	1 100	1 100	Satellite communications	-	-	China	CZ-2C	
2021-076B Communications Technology Satellite (PAYLOAD B)	China	24 Aug. 2021	JSLC	107.4	86.5	1 100	1 100	Satellite communications	-	-	China	CZ-2C	
2021-077A Communications Technology Test Satellite 7 (TJS-7)	China	24 Aug. 2021	XSLC	1 436.06	0.74	35 800	35 772	Communications satellite	-	-	China	CZ-3B	
2021-079A Hyperspectral Observation Satellite (GF-5B)	China	7 Sept. 2021	TSLC	98.723	98.203	725.63	696.973	Monitoring of pollutant gases, greenhouse gases and regional ambient air quality; monitoring of aquatic and ecological environments; climate change research; mapping of geological and mineral resources; agricultural surveys; forestry inventories; and emergency management, among others	-	-	China	CZ-4C	

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2021-080A	ChinaSat-9B	China	9 Sept. 2021	XSLC	1 436	0	35 786	35 786	Communications	-	-	China CZ-3B	
2021-086A	Jilin-1 Gaofen 02D	China	27 Sept. 2021	JSLC	95.55	97.54	547.89	541.48	The mission of Jilin-01 Gaofen 2D is to obtain static high spatial resolution colour Earth observation images and to provide remote sensing data services for, inter alia, land and resources monitoring, mineral resources development, smart city construction, forestry resources surveys, ecological environment monitoring and public health emergency response	-	-	China KZ-1A	
2021-087A	Shiyan-10	China	27 Sept. 2021	XSLC	734.96	51.12	40 138	1 061	Test satellite	-	-	China CZ-3B	
2021-091K	APSCO-Student Small Satellite 2A (SSS-2A)	China	14 Oct. 2021 at 1851 hours, 17 seconds	TSLC	94.84	97.4471	521.503	499.916	On-orbit acquisition of vessel position information and testing of inter-satellite link communications technology	31 Dec. 2026	-	China CZ-2D	
2021-094A	Shijian-21 (SJ-21)	China	24 Oct. 2021	XSLC	1 451.5	8.2	36 111	36 064	Test satellite	-	-	China CZ-3B	
2021-097A	Jilin-1 Gaofen 02F	China	27 Oct. 2021	JSLC	95.55	97.54	547.89	541.48	The mission of Jilin-01 Gaofen 02F is to obtain static high spatial resolution colour Earth observation images and to provide remote sensing data services for, inter alia, land and resources monitoring, mineral resources development, smart city construction, forestry resources surveys, ecological environment monitoring and public health emergency response	-	-	China KZ-1A	
2021-099A	Yaogan-32 Group-02 Satellite-A (Yaogan-32 2A)	China	3 Nov. 2021	JSLC	98.68	98.1	696	695	Remote sensing satellite	-	-	China CZ-2C	
2021-099B	Yaogan-32 Group-02 Satellite-B (Yaogan-32 2B)	China	3 Nov. 2021	JSLC	98.68	98.1	697	695	Remote sensing satellite	-	-	China CZ-2C	

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2021-100A Sustainable Development Science Satellite-1 (SDGSAT-1)	China	5 Nov. 2021	TSLC	95	97.5	510	500	Earth observation and remote sensing	-	-	China	CZ-6A	
2021-101A Yaogan-35 A	China	6 Nov. 2021	XSLC	94.54	35	499	494	Remote sensing satellite	-	-	China	CZ-2D	
2021-101B Yaogan-35 B	China	6 Nov. 2021	XSLC	94.54	35	498	494	Remote sensing satellite	-	-	China	CZ-2D	
2021-101D Yaogan-35 C	China	6 Nov. 2021	XSLC	94.51	35	497	492	Remote sensing satellite	-	-	China	CZ-2D	
2021-107A Gaofen-11 03	China	20 Nov. 2021	TSLC	93.61	97.45	504	487	Remote sensing satellite	-	-	China	CZ-4B	
2021-109A Gaofen-3 02 (GF-3 (02))	China	22 Nov. 2021	JSLC	99.85	98.411	755	755	Marine surveillance and monitoring	-	-	China	CZ-4C	
2021-112A Shiyao 11	China	24 Nov. 2021	JSLC	94.52	97.45	504	487	Test satellite	-	-	China	KZ-1A	
2021-114A ChinaSat-1D	China	26 Nov. 2021	XSLC	1 436.11	0.05	35 789	35 785	Communications satellite	-	-	China	CZ-3B	
2021-117A Tianjin University-1 (TJU-1)	China	7 Dec. 2021	JSLC	94.62	97.41	500	500	Meteorological observation	-	-	China	GX-1	
2021-122A Shijian-6 Group-05 Satellite-A (SJ-6 05A)	China	10 Dec. 2021	JSLC	93.9	97.4	479.6	463.1	Test satellite	-	-	China	CZ-4B	
2021-122B Shijian-6 Group-05 Satellite-B (SJ-6 05B)	China	10 Dec. 2021	JSLC	93.9	97.4	478.2	462	Test satellite	-	-	China	CZ-4B	
2021-124A Tianlian-2 02	China	13 Dec. 2021	XSLC	1 436.15	2.98	35 801	35 775	Communications satellite	-	-	China	CZ-3B	
2021-129A Shiyao-12 01	China	23 Dec. 2021	WSLS	631.08	19.45	35 773	213	Test satellite	-	-	China	CZ-7A	
2021-129B Shiyao-12 02	China	23 Dec. 2021	WSLS	630.67	19.48	35 760	206	Test satellite	-	-	China	CZ-7A	
2021-131A Resource-1 02E (Ziyuan-1 02E, ZY-1 (02E))	China	26 Dec. 2021	TSLC	-	98	778.099	778.099	Earth observation	-	-	China	CZ-4C	

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2021-131B	Beijing 101 Middle School Science-Education Small Satellite (XW-3)	China	26 Dec. 2021	TSLC	100.1	98.6	769.597	760.906	Scientific and technological experiments, and supplementary instruction in geography and other middle-school science subjects	-	-	China	CZ-4C
2021-134A	Tianhui-4 A	China	29 Dec. 2021	JSLC	94.35	88.99	488	487	Remote sensing satellite	-	-	China	CZ-2D
2021-134B	Tianhui-4 B	China	29 Dec. 2021	JSLC	94.35	88.98	488	487	Remote sensing satellite	-	-	China	CZ-2D
2021-135A	Communications Technology Test Satellite 9 (TJS-9)	China	29 Dec. 2021	XSLC	1 440	0	36 000	36 000	Communications satellite	-	-	China	CZ-3B
2022-007A	Land Observation-1 Group-01 Satellite-A (Ludi Tance-1 Group-01 Satellite-A, LT-1A)	China	25 Jan. 2022	JSLC	96.8	97.81	607	607	Operating in a sun-synchronous dawn-dusk orbit, the LT-1 satellites are designed mainly for differential surface deformation measurement tasks. They feature single-satellite synthetic aperture radar (SAR) imaging and dual-satellite interferometric altimetry functions, are capable of working in an all-weather, all-day, multi-mode and multi-polarization manner, and are mainly used for land and resources surveys, and early identification, monitoring and early warning of geological disasters	-	-	China	CZ-4C
2022-018A	Land Observation-1 Group-01 Satellite-B (Ludi Tance-1 Group-01 Satellite-B, LT-1B)	China	26 Feb. 2022	JSLC	96.8	97.81	607	607	Operating in a sun-synchronous dawn-dusk orbit, the LT-1 satellites are designed mainly for differential surface deformation measurement tasks. They feature single-satellite SAR imaging and dual-satellite interferometric altimetry functions, are capable of working in an all-weather, all-day, multi-mode and multi-polarization manner, and are mainly used for land and resources surveys, and early identification, monitoring and early warning of geological disasters	-	-	China	CZ-4C
2022-019S	Jilin-1 Gaofen 03D10	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8
2022-019M	Jilin-1 Gaofen 03D11	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8

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2022-019T Jilin-1 Gaofen 03D12	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019Y Jilin-1 Gaofen 03D13	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019H Jilin-1 Gaofen 03D14	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019R Jilin-1 Gaofen 03D15	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019L Jilin-1 Gaofen 03D16	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019Q Jilin-1 Gaofen 03D17	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019W Jilin-1 Gaofen 03D18	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-019C Jilin-1 MF02A01	China	27 Feb. 2022	WSLS	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-8	
2022-035A Gaofen-3 03	China	6 Apr. 2022	JSLC	99.9	98.411	755.4365	755.4365	Marine surveillance and monitoring	-	-	China	CZ-4C	
2022-038A ChinaSat-6D	China	15 Apr. 2022	XSLC	1 436	0	35 786	35 786	Radio and television communication services	-	125	China	CZ-3B	
2022-039A Atmospheric Environment Monitoring Satellite (Daqi Huanjing Jiancexing, DQ-1)	China	15 Apr. 2022	TSLC	98.84	98.16	705	705	Operating in a sun-synchronous frozen orbit, the DQ-1 satellite combines active and passive means to achieve large-scale, continuous, dynamic, round-the-clock and comprehensive monitoring of elements of atmospheric, aquatic and ecological environments, such as fine particulate matter, pollutant gases, greenhouse gases, clouds and aerosols	-	-	China	CZ-4C	

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2022-043A	Siwei-01 (Superview NEO-1 01)	China	29 Apr. 2022	JSLC	94.453	97.3952	500	500	Aside from providing basic global remote sensing satellite products with high precision and wide swath coverage, to meet market demands the satellite also offers value-added products, information products and spatio-temporal information service solutions, and has become a leader among the country's remote sensing satellite services for traditional industries in such areas as natural resources, surveying and mapping, oceans, environmental protection and emergency response. It is also serving emerging markets in China, including for three-dimensional (3D) real-scene modelling, urban security, "digital twin" systems for river basins, urban information modelling, rural digitalization, agricultural financing and autonomous driving, thus promoting the healthy development of the digital economy of China	-	-	China	CZ-2C	
2022-043C	Siwei-02 (Superview NEO-1 02)	China	29 Apr. 2022	JSLC	94.453	97.3952	500	500	Aside from providing basic global remote sensing satellite products with high precision and wide swath coverage, to meet market demands the satellite also offers value-added products, information products and spatio-temporal information service solutions, and has become a leader among the country's remote sensing satellite services for traditional industries in such areas as natural resources, surveying and mapping, oceans, environmental protection and emergency response. It is also serving emerging markets in China, including for 3D real-scene modelling, urban security, "digital twin" systems for river basins, urban information modelling, rural digitalization, agricultural financing and autonomous driving, thus promoting the healthy development of the digital economy of China	-	-	China	CZ-2C	

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2022-046A	Jilin-1 Gaofen 04A	China	30 Apr. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-11	
2022-046E	Jilin-1 Gaofen 03D04	China	30 Apr. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-11	
2022-046B	Jilin-1 Gaofen 03D05	China	30 Apr. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-11	
2022-046C	Jilin-1 Gaofen 03D06	China	30 Apr. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-11	
2022-046D	Jilin-1 Gaofen 03D07	China	30 Apr. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-11	
2022-048A	Jilin-1 Kuanfu 01C	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048B	Jilin-1 Gaofen 03D27	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048C	Jilin-1 Gaofen 03D28	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048F	Jilin-1 Gaofen 03D29	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048D	Jilin-1 Gaofen 03D30	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048G	Jilin-1 Gaofen 03D31	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048E	Jilin-1 Gaofen 03D32	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-048H	Jilin-1 Gaofen 03D33	China	5 May 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-2D	
2022-078A	Tianlian-2 03 (TL-2(03))	China	12 July 2022	XSLC	632	27	35 991	200	Communications satellite	-	-	China	CZ-3B	

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2022-082A	Siwei-03 (Superview NEO-2 01)	China	15 July 2022	TSLC	94.39	97.4	505.501	472.059	Aside from providing basic global remote sensing satellite products with high precision and wide swath coverage, to meet market demands the satellite also offers value-added products, information products and spatio-temporal information service solutions, and has become a leader among the country's remote sensing satellite services for traditional industries in such areas as natural resources, surveying and mapping, oceans, environmental protection and emergency response. It is also serving emerging markets in China, including for 3D real-scene modelling, urban security, "digital twin" systems for river basins, urban information modelling, rural digitalization, agricultural financing and autonomous driving, thus promoting the healthy development of the digital economy in China	-	-	China	CZ-2C	
2022-082C	Siwei-04 (Superview NEO-2 02)	China	15 July 2022	TSLC	94.39	97.4	505.501	472.059	Aside from providing basic global remote sensing satellite products with high precision and wide swath coverage, to meet market demands the satellite also offers value-added products, information products and spatio-temporal information service solutions, and has become a leader in the country's remote sensing satellite services for traditional industries in such areas as natural resources, surveying and mapping, oceans, environmental protection and emergency response. It is also serving the emerging markets in China, including for 3D real-scene modelling, urban security, "digital twin" systems for river basins, urban information modelling, rural digitalization, agricultural financing and autonomous driving, thus promoting the healthy development of the digital economy in China	-	-	China	CZ-2C	

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2022-085A	Wentian Lab Module	China	24 July 2022	WSLS	89.5	41.5	331	170	Crewed space station	-	-	China	CZ-5B	
2022-087B	Low-orbit Quantum Key Distribution Nanosatellite (LZWN)	China	27 July 2022	JSLC	94.75	97.375	500	500	Quantum key distribution experiments	-	-	China	ZK-1A	
2022-088A	Yaogan-35 Group-03 Satellite-A (Yaogan-35-A 03)	China	29 July 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-088C	Yaogan-35 Group-03 Satellite-B (Yaogan-35-B 03)	China	29 July 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-088E	Yaogan-35 Group-03 Satellite-C (Yaogan-35-C 03)	China	29 July 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-090B	Jiaotong-4 (Head-2G, Hede-2G)	China	4 Aug. 2022	TSLC	94.4	97.5	503.4	487.6	To receive Automatic Dependent Surveillance-Broadcast (ADS-B) messages, VHF Data Exchange System (VDES) messages, data collection system (DCS) messages and remote sensing images	-	-	China	CZ-4B	
2022-090A	Terrestrial Ecosystem Carbon Monitoring Satellite (TECMS)	China	4 Aug. 2022	TSLC	94.716	97.421	505.984	505.984	To measure vegetation biomass in terrestrial ecosystems, monitor carbon in terrestrial ecosystems, map and monitor terrestrial ecosystems and resources, and monitor and evaluate major national ecological projects	-	-	China	CZ-4B	
2022-098B	Jilin-1 Gaofen 03D09	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098K	Dongpo 01	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098J	Dongpo 02	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098G	Dongpo 03	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098H	Dongpo 04	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	

Committee on Space Research international designator		Name of the space object	State of Registry	Date of the launch (UTC)	Location of the launch	Basic orbital parameters				General function of the space object	Date of decay/ re-entry/ deorbit	Additional voluntary information		
						Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)			Geostationary position (degrees East)	Owner or operator	Launch vehicle
2022-098F	Dongpo 05	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098D	Dongpo 06	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098A	Dongpo 07	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098E	Jilin-1 Gaofen 03D43	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098P	Yun Yao-1 04	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098N	Yun Yao-1 05	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098L	Yun Yao-1 06	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098M	Yun Yao-1 07	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098Q	Yun Yao-1 08	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-098R	Tianjin Binhai-1 (Binghai-1)	China	10 Aug. 2022	TSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China	CZ-6A	
2022-100A	Yaogan-35 Group-04 Satellite-A (Yaogan-35-A 04)	China	19 Aug. 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-100C	Yaogan-35 Group-04 Satellite-B (Yaogan-35-B 04)	China	19 Aug. 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-100E	Yaogan-35 Group-04 Satellite-C (Yaogan-35-C 04)	China	19 Aug. 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-102A	Innovation-16 A (Chuangxin-16 A, CX-16A)	China	23 Aug. 2022	XSLC	97	29	607	590	Test satellite	-	-	China	KZ-1A	
2022-102B	Innovation-16 B (Chuangxin-16 B, CX-16B)	China	23 Aug. 2022	XSLC	97	29	607	590	Test satellite	-	-	China	KZ-1A	

Committee on Space Research international designator		Basic orbital parameters							Additional voluntary information				
Name of the space object	State of Registry	Date of the launch (UTC)	Location of the launch	Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	Date of decay/re-entry/deorbit	Geostationary position (degrees East)	Owner or operator	Launch vehicle	
2022-103A	Beijing-3 B	China	24 Aug. 2022	TSLC	96.7	97.9	610	610	To provide a large amount of high-resolution remote sensing satellite data and information products for the global market, and offer spatial information support for, inter alia, land and resource management, agricultural resource surveys, ecological environment monitoring and comprehensive urban applications	-	-	China	CZ-2D
2022-106A	Yaogan-33 03	China	2 Sept. 2022	JSLC	96	98.5	688	680	Remote sensing satellite	-	-	China	CZ-4C
2022-108A	Sunflower S3 Satellite (Xiangrikui S3)	China	6 Sept. 2022	JSLC	98.9	53.5	700	700	Space technology verification	-	-	China	KZ-1A
2022-109A	Yaogan-35 Group-05 Satellite-A (Yaogan-35-A 05)	China	6 Sept. 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China	CZ-2D
2022-109B	Yaogan-35 Group-05 Satellite-B (Yaogan-35-B 05)	China	6 Sept. 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China	CZ-2D
2022-109D	Yaogan-35 Group-05 Satellite-C (Yaogan-35-C 05)	China	6 Sept. 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China	CZ-2D
2022-112A	ChinaSat-1E (ChinaStar1E)	China	13 Sept. 2022	WSLS	634	14	35 950	200	Communications satellite	-	-	China	CZ-7A
2022-115A	Yunhai-1 03	China	20 Sept. 2022	JSLC	100.5	98.5	776	755	Remote sensing satellite	-	-	China	CZ-2D
2022-118A	Shiyan-14	China	24 Sept. 2022	TSLC	94.7	97.5	507	488	Test satellite	-	-	China	KZ-1A
2022-118B	Shiyan-15	China	24 Sept. 2022	TSLC	94.7	97.5	507	488	Test satellite	-	-	China	KZ-1A
2022-120A	Yaogan-36 Group-01 Satellite-A (Yaogan-36-A 01)	China	26 Sept. 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China	CZ-2D
2022-120D	Yaogan-36 Group-01 Satellite-B (Yaogan-36-B 01)	China	26 Sept. 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China	CZ-2D

Committee on Space Research international designator		Name of the space object	State of Registry	Date of the launch (UTC)	Location of the launch	Basic orbital parameters				General function of the space object	Date of decay/ re-entry/ deorbit	Additional voluntary information		
						Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)			Geostationary position (degrees East)	Owner or operator	Launch vehicle
2022-120E	Yaogan-36 Group-01 Satellite-C (Yaogan-36-C 01)	China	26 Sept. 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-121A	Shiyan-16 Satellite- A (Shiyan-16 A)	China	26 Sept. 2022	TSLC	94.7	97.5	521	505	Test satellite	-	-	China	CZ-6A	
2022-121B	Shiyan-16 Satellite- B (Shiyan-16 B)	China	26 Sept. 2022	TSLC	94.7	97.5	521	505	Test satellite	-	-	China	CZ-6A	
2022-121C	Shiyan-17	China	26 Sept. 2022	TSLC	94.7	97.5	521	505	Test satellite	-	-	China	CZ-6A	
2022-129A	Advanced Space- based Solar Observatory (ASO-S)	China	8 Oct. 2022	JSLC	99	98.27	720	720	Solar observation	-	-	China	CZ-2D	
2022-133A	Yaogan-36 Group-02 Satellite-A (Yaogan-36-A 02)	China	14 Oct. 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-133B	Yaogan-36 Group-02 Satellite-B (Yaogan-36-B 02)	China	14 Oct. 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-133D	Yaogan-36 Group-02 Satellite-C (Yaogan-36-C 02)	China	14 Oct. 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China	CZ-2D	
2022-142A	Shiyan-20 C	China	29 Oct. 2022	JSLC	100.4	60	809	747	Test satellite	-	-	China	CZ-2D	
2022-143A	Mengtian Lab Module	China	31 Oct. 2022	WSLS	89.5	41.5	333.9	170	Crewed space station	-	-	China	CZ-5B	
2022-148A	ChinaSat-19	China	5 Nov. 2022	XSLC	1 436	0	35 786	35 786	Capable of providing users with various communication services, such as voice, data and video services	-	-	China	CZ-3B	
2022-151A	Yunhai-3	China	11 Nov. 2022	TSLC	101.9	98.8	857	840	Remote sensing satellite	-	-	China	CZ-6A	
2022-152A	Tianzhou-5	China	12 Nov. 2022	WSLS	88.9	41.6	240	200	Cargo spacecraft	-	-	China	CZ-7	
2022-152G	Macao Student Science Education Satellite 1	China	12 Nov. 2022	WSLS	92	41.48	375	369	To carry out scientific educational activities as a radio communication test load	-	-	China	CZ-7	

Committee on Space Research international designator		Basic orbital parameters								Additional voluntary information			
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2022-154A	Yaogan-34 03	China	15 Nov. 2022	JSLC	109	63.4	1 093	1 080	Remote sensing satellite	-	-	China CZ-4C	
2022-155A	Jilin-1 Gaofen 03D08	China	16 Nov. 2022	JSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China GX-1	
2022-155B	Jilin-1 Gaofen 03D51	China	16 Nov. 2022	JSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China GX-1	
2022-155E	Jilin-1 Gaofen 03D52	China	16 Nov. 2022	JSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China GX-1	
2022-155C	Jilin-1 Gaofen 03D53	China	16 Nov. 2022	JSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China GX-1	
2022-155D	Jilin-1 Gaofen 03D54	China	16 Nov. 2022	JSLC	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China GX-1	
2022-160A	Yaogan-36 Group-03 Satellite-A (Yaogan-36-A 03)	China	27 Nov. 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China CZ-2D	
2022-160C	Yaogan-36 Group-03 Satellite-B (Yaogan-36-B 03)	China	27 Nov. 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China CZ-2D	
2022-160E	Yaogan-36 Group-03 Satellite-C (Yaogan-36-C 03)	China	27 Nov. 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China CZ-2D	
2022-162A	Shenzhou-15	China	29 Nov. 2022	JSLC	90	41.5	361.8	200	Crewed spacecraft	-	-	China CZ-2F	
2022-164A	Jiaotong VDES Test Satellite (JT VDES)	China	7 Dec. 2022	JSLC	99.67	98.4855	750.14	750.14	VDES technology verification and testing, and detection of automatic identification system signals from ships	-	-	China KZ-11	
2022-165A	Hyperspectral Comprehensive Observation Satellite (Gaiguangpu Zonghe Guance Weixing, GF-5(01A))	China	8 Dec. 2022	TSLC	98.723	98.027	712.6922	695.9278	The hyperspectral integrated observation satellite operates in a sun-synchronous recursive orbit with a local time at the ascending node of 1330 hours. It has the ability to obtain hyperspectral remote sensing data for wavelengths ranging from ultraviolet to long-wave infrared, and is used mainly for environmental quality regulation, atmospheric composition	-	-	China CZ-2D	

Committee on Space Research international designator		Basic orbital parameters								Additional voluntary information			
Name of the space object	State of Registry	Date of the launch (UTC)	Location of the launch	Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	Date of decay/re-entry/deorbit	Geostationary position (degrees East)	Owner or operator	Launch vehicle	
								monitoring, natural resource mapping and climate change research					
2022-167E	Dongpo 08	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167D	Dongpo 09	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167H	Dongpo 10	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167K	Jiaotong-5 (Head-2H), (Hede-2H)	China	9 Dec. 2022	HOS	95.4	97.5	554.1	533	To receive ADS-B, VDES and DCS messages and remote sensing images	-	-	China SD-3	
2022-167L	Jilin-1 Gaofen 03D47	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167P	Jilin-1 Gaofen 03D48	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167N	Jilin-1 Gaofen 03D49	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167J	Jilin-1 Gaofen 03D50	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-167Q	Jilin-1 Pingtai 01A01	China	9 Dec. 2022	Yellow Sea	95.33	97.54	535	535	Remote sensing imaging of the Earth	-	-	China SD-3	
2022-169A	Shiyan-20 A	China	12 Dec. 2022	JSJC	100.8	60	802.8	794.6	Test satellite	-	-	China CZ-4C	
2022-169B	Shiyan-20 B	China	12 Dec. 2022	JSJC	100.8	60	799.5	794.9	Test satellite	-	-	China CZ-4C	
2022-171A	Yaogan-36 Group-04 Satellite-A (Yaogan-36-A 04)	China	14 Dec. 2022	XSLC	94.6	35	504	492	Remote sensing satellite	-	-	China CZ-2D	
2022-171C	Yaogan-36 Group-04 Satellite-B (Yaogan-36-B 04)	China	14 Dec. 2022	XSLC	94.6	35	505	492	Remote sensing satellite	-	-	China CZ-2D	
2022-171E	Yaogan-36 Group-04 Satellite-C (Yaogan-36-C 04)	China	14 Dec. 2022	XSLC	94.6	35	506	492	Remote sensing satellite	-	-	China CZ-2D	

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Name of the space object	State of Registry	Date of the launch (UTC)	Location of the launch	Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	Date of decay/re-entry/deorbit	Geostationary position (degrees East)	Owner or operator	Launch vehicle	
2022-172A	China	16 Dec. 2022	XSLC	94.3	36	485	485	Test satellite	-	-	China	CZ-11	
2022-176A	China	27 Dec. 2022	TSLC	95.3	97.2	700	250	Remote sensing satellite	-	-	China	CZ-4B	
2022-178A	China	29 Dec. 2022	XSLC	741	63.4	40 000	1 500	Test satellite	-	-	China	CZ-3B	

Abbreviations

Location of the launch: HOS, Haiyang Oriental Spaceport, China; JSLC, Jiuquan Satellite Launch Centre, China; TSLC, Taiyuan Satellite Launch Centre, China; WSLC, Wenchang Satellite Launch Centre, China; and XSLC, Xichang Satellite Launch Centre, China.

Launch vehicle: CZ-2C, Long March-2C; CZ-2D, Long March-2D; CZ-2F, Long March-2F; CZ-3B, Long March-3B; CZ-3C, Long March-3C; CZ-4B, Long March-4B; CZ-4C, Long March-4C; CZ-5B, Long March-5B; CZ-6A, Long March-6A; CZ-7, Long March-7; CZ-7A, Long March-7A; CZ-8, Long March-8; CZ-11, Long March-11; GX-1, Ceres-1; KZ-1A, Kuaizhou-1A; KZ-11, Kuaizhou-11; SD-3, Smart Dragon-3; and ZK-1A, Lijian-1.