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

Note verbale dated 3 January 2022 from the Permanent Mission of the United States of America to the United Nations (Vienna) addressed to the Secretary-General

The Permanent Mission of the United States of America 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 registration data on objects launched into outer space by the United States for November 2021 (see annex).¹

The United States requests that the space objects contained in the annex to the present document be placed on the Register of Objects Launched into Outer Space maintained by the United Nations. In submitting this request, the United States notes that, consistent with its long-standing registration practice, the United States is not necessarily a launching State for each of the space objects it registers. The United States makes this request in the spirit of contributing to the practical effectiveness of the treaties and is providing information to the greatest extent practicable.

¹ The data on the space objects referenced in the annex were entered into the Register of Objects Launched into Outer Space on 5 January 2022.



Annex

Registration data on space launches by the United States of America for November 2021*

The following report supplements the registration data on United States space launches as at 30 November 2021.

International designation	Name of the space object	Date of the launch	Location of the launch	Basic orbital characteristics				General function of the space object	Date of decay
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)		
The following objects were launched after the last report and remained in orbit as at 2359Z on 30 November 2021:									
2021-103A	Dragon Endurance	11 November 2021	AFETR	92.97	51.64	423	417	E	-
2021-104A	Starlink-3151	13 November 2021	AFETR	91.65	53.22	357	354	C	-
2021-104B	Starlink-3075	13 November 2021	AFETR	91.55	53.22	352	349	C	-
2021-104C	Starlink-3147	13 November 2021	AFETR	91.67	53.22	359	354	C	-
2021-104D	Starlink-3162	13 November 2021	AFETR	91.53	53.22	354	346	C	-
2021-104E	Starlink-3144	13 November 2021	AFETR	91.55	53.22	352	349	C	-
2021-104F	Starlink-3157	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104G	Starlink-3146	13 November 2021	AFETR	91.66	53.22	358	354	C	-
2021-104H	Starlink-3159	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104J	Starlink-3133	13 November 2021	AFETR	91.65	53.22	357	354	C	-
2021-104K	Starlink-3154	13 November 2021	AFETR	91.53	53.22	355	345	C	-
2021-104L	Starlink-3111	13 November 2021	AFETR	91.64	53.22	356	354	C	-
2021-104M	Starlink-3120	13 November 2021	AFETR	91.62	53.22	355	353	C	-
2021-104N	Starlink-3110	13 November 2021	AFETR	91.64	53.22	356	354	C	-
2021-104P	Starlink-3112	13 November 2021	AFETR	91.61	53.22	355	352	C	-
2021-104Q	Starlink-3161	13 November 2021	AFETR	91.63	53.22	356	353	C	-
2021-104R	Starlink-3149	13 November 2021	AFETR	91.60	53.22	355	351	C	-
2021-104S	Starlink-3135	13 November 2021	AFETR	91.62	53.22	355	352	C	-
2021-104T	Starlink-3139	13 November 2021	AFETR	91.59	53.22	354	351	C	-
2021-104U	Starlink-3114	13 November 2021	AFETR	91.60	53.22	354	352	C	-
2021-104V	Starlink-3131	13 November 2021	AFETR	91.58	53.22	354	351	C	-
2021-104W	Starlink-3121	13 November 2021	AFETR	91.56	53.22	353	350	C	-
2021-104X	Starlink-3123	13 November 2021	AFETR	88.00	53.21	193	158	C	-
2021-104Y	Starlink-3138	13 November 2021	AFETR	91.58	53.22	353	350	C	-
2021-104Z	Starlink-3153	13 November 2021	AFETR	91.63	53.22	355	353	C	-
2021-104AA	Starlink-3158	13 November 2021	AFETR	91.53	53.22	351	348	C	-

* The registration data are reproduced in the form in which they were received.

International designation	Name of the space object	Date of the launch	Location of the launch	Basic orbital characteristics				General function of the space object	Date of decay
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)		
2021-104AB	Starlink-3079	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AC	Starlink-3134	13 November 2021	AFETR	91.57	53.22	353	350	C	-
2021-104AD	Starlink-3117	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AE	Starlink-3049	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AF	Starlink-3130	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-104AG	Starlink-3044	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-104AH	Starlink-3108	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-104AJ	Starlink-3105	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-104AK	Starlink-3128	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AL	Starlink-3098	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AM	Starlink-3136	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AN	Starlink-3126	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AP	Starlink-3122	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AQ	Starlink-3099	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-104AR	Starlink-3115	13 November 2021	AFETR	91.54	53.22	352	348	C	-
2021-104AS	Starlink-3097	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AT	Starlink-3137	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AU	Starlink-3127	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AV	Starlink-3125	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AW	Starlink-3150	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AX	Starlink-3129	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104AY	Starlink-3160	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-104AZ	Starlink-3145	13 November 2021	AFETR	91.54	53.22	352	348	C	-
2021-104BA	Starlink-3124	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104BB	Starlink-3132	13 November 2021	AFETR	91.54	53.22	352	348	C	-
2021-104BC	Starlink-3156	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104BD	Starlink-3141	13 November 2021	AFETR	91.53	53.22	351	348	C	-
2021-104BE	Starlink-3140	13 November 2021	AFETR	91.53	53.22	352	348	C	-
2021-106A	Global-14	18 November 2021	RLLC	93.23	42.01	436	430	C	-
2021-106B	Global-15	18 November 2021	RLLC	93.21	42.01	436	428	C	-
2021-108A	Astra Satellite 00001	20 November 2021	KODAK	94.09	86.01	507	442	C	-
2021-110A	NASA DART	24 November 2021	AFWTR		Heliocentric orbit			C	-
2021-110B	Falcon 9 R/B	24 November 2021	AFWTR		Heliocentric orbit			D	-

International designation	Name of the space object	Date of the launch	Location of the launch	Basic orbital characteristics				General function of the space object	Date of decay
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)		
The following objects not previously reported were identified after the last report and remained in orbit as at 2359Z on 30 November 2021:									
2021-059AG	PACE-1	30 June 2021	AFETR	95.19	97.52	536	520	C	-
The following objects achieved orbit after the last report but were no longer in orbit as at 2359Z on 30 November 2021:									
None.									
The following objects were launched after the last report but did not achieve orbit:									
None.									
The following objects identified in a previous report were no longer in orbit as at 2359Z on 30 November 2021:									
2021-030A	-	-	-	-	-	-	-	-	9 November 2021
2020-073BG	-	-	-	-	-	-	-	-	11 November 2021
2020-073G	-	-	-	-	-	-	-	-	13 November 2021
2020-074Z	-	-	-	-	-	-	-	-	14 November 2021
2020-001F	-	-	-	-	-	-	-	-	23 November 2021
2020-001X	-	-	-	-	-	-	-	-	23 November 2021
1998-067RD	-	-	-	-	-	-	-	-	23 November 2021
2020-062AW	-	-	-	-	-	-	-	-	23 November 2021
2020-012AQ	-	-	-	-	-	-	-	-	27 November 2021
2020-088AQ	-	-	-	-	-	-	-	-	29 November 2021
2021-024AA	-	-	-	-	-	-	-	-	29 November 2021
2021-024AF	-	-	-	-	-	-	-	-	29 November 2021
2016-067A	-	-	-	-	-	-	-	-	30 November 2021
Revisions that should be made to previously reported data:									
None.									

Abbreviations and key

Location of the launch: AFETR, United States Air Force Eastern Test Range; AFWTR, United States Air Force Western Test Range; KODAK, Kodiak Launch Complex, United States; RLLC, Rocket Lab Launch Complex, New Zealand.

General function of the space object:

- A Spacecraft engaged in investigation of space flight techniques and technology
- B Spacecraft engaged in research and exploration of the upper atmosphere
- C Spacecraft engaged in practical applications and uses of space technology such as weather or communications
- D Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
- E Reusable space transportation systems