



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

Note verbale dated 27 January 2025 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 2024 (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 20 February 2025.



Registration data on space launches by the United States of America for November 2024*

The following report supplements the registration data on United States space launches as at 30 November 2024.

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 2024:									
2024-200A	Dragon CRS-31	5 November 2024	AFETR	92.86	51.64	420	410	E	-
2024-202A	Starlink-32362	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202B	Starlink-32472	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202C	Starlink-32352	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202D	Starlink-32427	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202E	Starlink-32346	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202F	Starlink-32330	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202G	Starlink-32379	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202H	Starlink-32433	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202J	Starlink-32394	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202K	Starlink-32486	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202L	Starlink-32391	7 November 2024	AFETR	93.47	43	445	443	C	-
2024-202M	Starlink-32483	7 November 2024	AFETR	93.46	43.01	445	443	C	-
2024-202N	Starlink-32451	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202P	Starlink-32556	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202Q	Starlink-32466	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202R	Starlink-32316	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202S	Starlink-32415	7 November 2024	AFETR	93.46	43	446	442	C	-
2024-202T	Starlink-32393	7 November 2024	AFETR	93.46	43	445	443	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)		
2024-202U	Starlink-32324	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202V	Starlink-32318	7 November 2024	AFETR	93.46	43	446	442	C	-
2024-202W	Starlink-32401	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202X	Starlink-32588	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-202Y	Starlink-32569	7 November 2024	AFETR	93.46	43	445	443	C	-
2024-204A	Starlink-11402	9 November 2024	AFWTR	91.74	53.16	360	359	C	-
2024-204B	Starlink-11316	9 November 2024	AFWTR	91.33	53.15	340	339	C	-
2024-204C	Starlink-11401	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204D	Starlink-11321	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204E	Starlink-11314	9 November 2024	AFWTR	91.74	53.16	360	359	C	-
2024-204F	Starlink-11324	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204G	Starlink-11328	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204H	Starlink-11329	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204J	Starlink-11398	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204K	Starlink-11383	9 November 2024	AFWTR	91.74	53.16	360	359	C	-
2024-204L	Starlink-11359	9 November 2024	AFWTR	91.74	53.16	360	359	C	-
2024-204M	Starlink-11301	9 November 2024	AFWTR	91.74	53.16	360	359	C	-
2024-204N	Starlink-11351	9 November 2024	AFWTR	91.74	53.16	361	359	C	-
2024-204P	Starlink-32410	9 November 2024	AFWTR	93.53	53.16	448	447	C	-
2024-204Q	Starlink-32377	9 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-204R	Starlink-32292	9 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-204S	Starlink-32501	9 November 2024	AFWTR	93.53	53.16	449	446	C	-
2024-204T	Starlink-32383	9 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-204U	Starlink-32239	9 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-204V	Starlink-32489	9 November 2024	AFWTR	93.53	53.16	448	446	C	-

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)		
2024-206B	Falcon 9 R/B	11 November 2024	AFETR	624.22	27.04	35 348	285	D	-
2024-207A	Starlink-32303	11 November 2024	AFETR	93.65	43	454	452	C	-
2024-207B	Starlink-32434	11 November 2024	AFETR	93.99	43	471	468	C	-
2024-207C	Starlink-32460	11 November 2024	AFETR	93.99	43	471	468	C	-
2024-207D	Starlink-32559	11 November 2024	AFETR	93.92	43	467	465	C	-
2024-207E	Starlink-32541	11 November 2024	AFETR	93.41	43	442	440	C	-
2024-207F	Starlink-32544	11 November 2024	AFETR	93.79	43	461	459	C	-
2024-207G	Starlink-32555	11 November 2024	AFETR	93.31	43	437	435	C	-
2024-207H	Starlink-32547	11 November 2024	AFETR	93.99	43	470	469	C	-
2024-207J	Starlink-32616	11 November 2024	AFETR	93.58	43	450	449	C	-
2024-207K	Starlink-32605	11 November 2024	AFETR	93.89	43	466	464	C	-
2024-207L	Starlink-32579	11 November 2024	AFETR	93.51	43	447	446	C	-
2024-207M	Starlink-32537	11 November 2024	AFETR	93.27	43	435	433	C	-
2024-207N	Starlink-32564	11 November 2024	AFETR	93.38	43	441	439	C	-
2024-207P	Starlink-32536	11 November 2024	AFETR	93.24	43	434	432	C	-
2024-207Q	Starlink-32624	11 November 2024	AFETR	93.99	43	471	468	C	-
2024-207R	Starlink-32622	11 November 2024	AFETR	93.99	43	470	469	C	-
2024-207S	Starlink-32620	11 November 2024	AFETR	93.71	43	457	455	C	-
2024-207T	Starlink-32609	11 November 2024	AFETR	93.75	43	459	457	C	-
2024-207U	Starlink-32567	11 November 2024	AFETR	93.46	43	445	443	C	-
2024-207V	Starlink-32420	11 November 2024	AFETR	93.99	43	470	469	C	-
2024-207W	Starlink-32354	11 November 2024	AFETR	93.46	43	445	443	C	-
2024-207X	Starlink-32361	11 November 2024	AFETR	93.2	43	432	430	C	-
2024-207Y	Starlink-32563	11 November 2024	AFETR	93.99	43	471	468	C	-
2024-207Z	Starlink-32500	11 November 2024	AFETR	93.63	43	453	451	C	-

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)		
2024-209A	Starlink-11407	14 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-209B	Starlink-11337	14 November 2024	AFWTR	91.33	53.16	341	338	C	-
2024-209C	Starlink-11353	14 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-209D	Starlink-11320	14 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-209E	Starlink-11425	14 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-209F	Starlink-11422	14 November 2024	AFWTR	91.33	53.15	341	339	C	-
2024-209G	Starlink-11421	14 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-209H	Starlink-11410	14 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-209J	Starlink-11390	14 November 2024	AFWTR	91.33	53.15	340	339	C	-
2024-209K	Starlink-11414	14 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-209L	Starlink-11424	14 November 2024	AFWTR	91.33	53.15	340	340	C	-
2024-209M	Starlink-11423	14 November 2024	AFWTR	91.5	53.16	349	348	C	-
2024-209N	Starlink-11395	14 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-209P	Starlink-32572	14 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-209Q	Starlink-32585	14 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-209R	Starlink-32574	14 November 2024	AFWTR	93.52	53.16	448	446	C	-
2024-209S	Starlink-32583	14 November 2024	AFWTR	93.22	53.16	433	431	C	-
2024-209T	Starlink-32273	14 November 2024	AFWTR	92.95	53.16	421	417	C	-
2024-209U	Starlink-32359	14 November 2024	AFWTR	93.52	53.16	448	446	C	-
2024-209V	Starlink-32566	14 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-210A	Starlink-32499	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210B	Starlink-32372	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210C	Starlink-32452	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210D	Starlink-32458	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210E	Starlink-32487	14 November 2024	AFETR	92.87	43	416	414	C	-

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)		
2024-210F	Starlink-32513	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210G	Starlink-32514	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210H	Starlink-32498	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210J	Starlink-32518	14 November 2024	AFETR	91.77	43	363	360	C	-
2024-210K	Starlink-32471	14 November 2024	AFETR	93.47	43	445	443	C	-
2024-210L	Starlink-32450	14 November 2024	AFETR	92.89	43	417	415	C	-
2024-210M	Starlink-32613	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210N	Starlink-32610	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210P	Starlink-32612	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210Q	Starlink-32601	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210R	Starlink-32593	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210S	Starlink-32586	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210T	Starlink-32611	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210U	Starlink-32607	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210V	Starlink-32606	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210W	Starlink-32578	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210X	Starlink-32517	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210Y	Starlink-32522	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-210Z	Starlink-32560	14 November 2024	AFETR	92.87	43	416	414	C	-
2024-212B	Falcon 9 R/B	17 November 2024	AFETR	920.74	17.64	49 539	407	D	-
2024-213A	Starlink-11433	18 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-213B	Starlink-11262	18 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-213C	Starlink-11326	18 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-213D	Starlink-11330	18 November 2024	AFWTR	91.33	53.15	341	338	C	-
2024-213E	Starlink-11363	18 November 2024	AFWTR	91.33	53.16	341	339	C	-

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)		
2024-213F	Starlink-11377	18 November 2024	AFWTR	91.05	53.16	327	325	C	-
2024-213G	Starlink-11385	18 November 2024	AFWTR	91.33	53.15	340	339	C	-
2024-213H	Starlink-11396	18 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-213J	Starlink-11393	18 November 2024	AFWTR	91.33	53.15	340	339	C	-
2024-213K	Starlink-11343	18 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-213L	Starlink-11411	18 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-213M	Starlink-11404	18 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-213N	Starlink-11378	18 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-213P	Starlink-32520	18 November 2024	AFWTR	92.94	53.16	420	418	C	-
2024-213Q	Starlink-32539	18 November 2024	AFWTR	90.96	53.16	322	321	C	-
2024-213R	Starlink-32334	18 November 2024	AFWTR	92.94	53.16	420	418	C	-
2024-213S	Starlink-32504	18 November 2024	AFWTR	93.53	53.16	448	446	C	-
2024-213T	Starlink-32493	18 November 2024	AFWTR	92.97	53.16	420	419	C	-
2024-213U	Starlink-32561	18 November 2024	AFWTR	92.96	53.16	421	419	C	-
2024-213V	Starlink-32512	18 November 2024	AFWTR	92.94	53.16	420	418	C	-
2024-214B	Falcon 9 R/B	18 November 2024	AFETR	1 137.9	27.71	59 233	220	D	-
2024-216A	Starlink-32637	21 November 2024	AFETR	93.44	43	444	441	C	-
2024-216B	Starlink-32582	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216C	Starlink-32615	21 November 2024	AFETR	92.87	43	415	415	C	-
2024-216D	Starlink-32592	21 November 2024	AFETR	92.87	43	416	415	C	-
2024-216E	Starlink-32225	21 November 2024	AFETR	93.19	43	431	430	C	-
2024-216F	Starlink-32595	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216G	Starlink-32477	21 November 2024	AFETR	93.46	43	445	442	C	-
2024-216H	Starlink-32480	21 November 2024	AFETR	92.87	43	416	415	C	-
2024-216J	Starlink-32510	21 November 2024	AFETR	92.87	43	416	415	C	-

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)		
2024-216K	Starlink-32456	21 November 2024	AFETR	93.1	43	427	426	C	-
2024-216L	Starlink-32509	21 November 2024	AFETR	93.39	43	442	439	C	-
2024-216M	Starlink-32491	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216N	Starlink-32577	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216P	Starlink-32618	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216Q	Starlink-32598	21 November 2024	AFETR	93.36	43	440	438	C	-
2024-216R	Starlink-32630	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216S	Starlink-32599	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216T	Starlink-32473	21 November 2024	AFETR	92.88	43	418	413	C	-
2024-216U	Starlink-32492	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216V	Starlink-32496	21 November 2024	AFETR	92.87	43	417	413	C	-
2024-216W	Starlink-32495	21 November 2024	AFETR	93.15	43	430	428	C	-
2024-216X	Starlink-32494	21 November 2024	AFETR	92.87	43	416	414	C	-
2024-216Y	Starlink-32408	21 November 2024	AFETR	93.46	43	445	443	C	-
2024-216Z	Starlink-32571	21 November 2024	AFETR	93.31	43	437	436	C	-
2024-217A	Starlink-11465	24 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-217B	Starlink-11426	24 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-217C	Starlink-11454	24 November 2024	AFWTR	91.33	53.15	341	339	C	-
2024-217D	Starlink-11473	24 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-217E	Starlink-11429	24 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-217F	Starlink-11470	24 November 2024	AFWTR	91.23	53.16	336	334	C	-
2024-217G	Starlink-11427	24 November 2024	AFWTR	91.33	53.16	341	339	C	-
2024-217H	Starlink-11456	24 November 2024	AFWTR	91.32	53.16	340	338	C	-
2024-217J	Starlink-11474	24 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-217K	Starlink-11463	24 November 2024	AFWTR	91.33	53.16	340	340	C	-

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)		
2024-217L	Starlink-11472	24 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-217M	Starlink-11467	24 November 2024	AFWTR	91.33	53.16	340	339	C	-
2024-217N	Starlink-11460	24 November 2024	AFWTR	91.11	53.16	330	328	C	-
2024-217P	Starlink-32604	24 November 2024	AFWTR	92.91	53.16	418	416	C	-
2024-217Q	Starlink-32553	24 November 2024	AFWTR	92.91	53.16	418	416	C	-
2024-217R	Starlink-32603	24 November 2024	AFWTR	92.91	53.16	418	416	C	-
2024-217S	Starlink-32444	24 November 2024	AFWTR	92.94	53.16	420	418	C	-
2024-217T	Starlink-32619	24 November 2024	AFWTR	92.91	53.16	418	416	C	-
2024-217U	Starlink-32580	24 November 2024	AFWTR	92.91	53.16	418	416	C	-
2024-217V	Starlink-32617	24 November 2024	AFWTR	92.91	53.16	418	416	C	-
2024-220A	Starlink-11384	25 November 2024	AFETR	91.67	43	358	355	C	-
2024-220B	Starlink-11379	25 November 2024	AFETR	91.67	43	358	355	C	-
2024-220C	Starlink-11387	25 November 2024	AFETR	91.67	43	358	355	C	-
2024-220D	Starlink-11389	25 November 2024	AFETR	91.67	43	358	355	C	-
2024-220E	Starlink-11388	25 November 2024	AFETR	91.67	43	358	355	C	-
2024-220F	Starlink-11345	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220G	Starlink-11381	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220H	Starlink-11369	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220J	Starlink-11303	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220K	Starlink-11367	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220L	Starlink-11386	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220M	Starlink-11380	25 November 2024	AFETR	91.44	43	346	344	C	-
2024-220N	Starlink-33566	25 November 2024	AFETR	92.76	43	411	408	C	-
2024-220P	Starlink-33545	25 November 2024	AFETR	92.76	43	411	408	C	-
2024-220Q	Starlink-33562	25 November 2024	AFETR	92.76	43	411	408	C	-

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)		
2024-220R	Starlink-33554	25 November 2024	AFETR	92.76	43	411	408	C	-
2024-220S	Starlink-33555	25 November 2024	AFETR	92.76	43	411	408	C	-
2024-220T	Starlink-33542	25 November 2024	AFETR	92.79	43	412	410	C	-
2024-220U	Starlink-33557	25 November 2024	AFETR	92.14	43	381	378	C	-
2024-220V	Starlink-33559	25 November 2024	AFETR	92.76	43	411	409	C	-
2024-220W	Starlink-33553	25 November 2024	AFETR	92.76	43	411	409	C	-
2024-220X	Starlink-33556	25 November 2024	AFETR	92.76	43	411	409	C	-
2024-220Y	Starlink-33551	25 November 2024	AFETR	92.76	43	411	409	C	-
2024-222A	Starlink-32311	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222B	Starlink-32470	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222C	Starlink-32502	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222D	Starlink-32521	27 November 2024	AFETR	91.09	43	330	327	C	-
2024-222E	Starlink-32549	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222F	Starlink-32535	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222G	Starlink-32548	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222H	Starlink-32525	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222J	Starlink-32628	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222K	Starlink-32626	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222L	Starlink-32608	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222M	Starlink-32488	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222N	Starlink-32490	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222P	Starlink-32557	27 November 2024	AFETR	91.09	43	329	327	C	-
2024-222Q	Starlink-32568	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222R	Starlink-32462	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222S	Starlink-32463	27 November 2024	AFETR	92.4	43	393	391	C	-

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)		
2024-222T	Starlink-32550	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222U	Starlink-32507	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222V	Starlink-32245	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222W	Starlink-32546	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222X	Starlink-32545	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222Y	Starlink-32554	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-222Z	Starlink-32570	27 November 2024	AFETR	92.4	43	393	391	C	-
2024-224A	Starlink-32529	30 November 2024	AFETR	92.63	43	404	402	C	-
2024-224B	Starlink-32464	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224C	Starlink-32482	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224D	Starlink-32454	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224E	Starlink-32485	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224F	Starlink-32388	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224G	Starlink-32374	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224H	Starlink-32384	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224J	Starlink-32295	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224K	Starlink-32479	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224L	Starlink-32468	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224M	Starlink-32629	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224N	Starlink-32644	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224P	Starlink-32623	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224Q	Starlink-32639	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224R	Starlink-32625	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224S	Starlink-32635	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224T	Starlink-32532	30 November 2024	AFETR	91.77	43	363	360	C	-

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)		
2024-224U	Starlink-32503	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224V	Starlink-32508	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224W	Starlink-32524	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224X	Starlink-32484	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224Y	Starlink-32497	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-224Z	Starlink-32526	30 November 2024	AFETR	91.77	43	363	360	C	-
2024-225A	USA 438	30 November 2024	AFWTR	90.91	69.97	325	313	C	-
2024-225B	USA 439	30 November 2024	AFWTR	90.95	69.93	328	314	C	-
2024-225C	Starlink-32523	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225D	Starlink-32551	30 November 2024	AFWTR	93.09	70	428	424	C	-
2024-225E	Starlink-32506	30 November 2024	AFWTR	92.77	70	413	408	C	-
2024-225F	Starlink-32562	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225G	Starlink-32558	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225H	Starlink-32538	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225J	Starlink-32257	30 November 2024	AFWTR	92.97	70	422	418	C	-
2024-225K	Starlink-32407	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225L	Starlink-32575	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225M	Starlink-32552	30 November 2024	AFWTR	93.07	70	427	422	C	-
2024-225N	Starlink-32534	30 November 2024	AFWTR	92.74	70	411	406	C	-
2024-225P	Starlink-32516	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225Q	Starlink-32542	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225R	Starlink-32600	30 November 2024	AFWTR	92.75	70	412	407	C	-
2024-225S	Starlink-32584	30 November 2024	AFWTR	91.4	70	346	341	C	-
2024-225T	Starlink-32587	30 November 2024	AFWTR	91.17	70	334	330	C	-
2024-225U	Starlink-32602	30 November 2024	AFWTR	92.76	70	412	407	C	-

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)		
2024-225V	Starlink-32565	30 November 2024	AFWTR	92.95	70	421	417	C	-
2024-225W	Starlink-32589	30 November 2024	AFWTR	93	70	424	419	C	-
2024-225X	Starlink-32581	30 November 2024	AFWTR	92.75	70	412	407	C	-
The following objects not previously reported were identified after the last report and remained in orbit as at 2359Z on 30 November 2024:									
2024-149BK	OreSat0.5	16 August 2024	AFWTR	94.48	97.43	500	487	C	-
The following objects achieved orbit after the last report but were no longer in orbit as at 2359Z on 30 November 2024:									
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 2024:									
2022-002S	-	-	-	-	-	-	-	-	1 November 2024
2009-071A	-	-	-	-	-	-	-	-	2 November 2024
2020-074U	-	-	-	-	-	-	-	-	2 November 2024
2020-038BF	-	-	-	-	-	-	-	-	3 November 2024
2024-068T	-	-	-	-	-	-	-	-	3 November 2024
2020-038AR	-	-	-	-	-	-	-	-	5 November 2024
2020-057AJ	-	-	-	-	-	-	-	-	5 November 2024
2020-081G	-	-	-	-	-	-	-	-	5 November 2024
2021-006EJ	-	-	-	-	-	-	-	-	5 November 2024
2022-002J	-	-	-	-	-	-	-	-	5 November 2024
2022-002N	-	-	-	-	-	-	-	-	5 November 2024
2022-002AV	-	-	-	-	-	-	-	-	5 November 2024
2022-002BD	-	-	-	-	-	-	-	-	5 November 2024
2023-084BC	-	-	-	-	-	-	-	-	5 November 2024
2023-174CH	-	-	-	-	-	-	-	-	5 November 2024

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)		
2023-174CK	-	-	-	-	-	-	-	-	5 November 2024
1994-029HN	-	-	-	-	-	-	-	-	6 November 2024
2022-002AK	-	-	-	-	-	-	-	-	6 November 2024
2023-084AS	-	-	-	-	-	-	-	-	6 November 2024
2021-082AJ	-	-	-	-	-	-	-	-	7 November 2024
2022-041AZ	-	-	-	-	-	-	-	-	7 November 2024
2023-186G	-	-	-	-	-	-	-	-	7 November 2024
2024-098D	-	-	-	-	-	-	-	-	7 November 2024
1970-025JH	-	-	-	-	-	-	-	-	8 November 2024
2022-002C	-	-	-	-	-	-	-	-	8 November 2024
2023-084AZ	-	-	-	-	-	-	-	-	8 November 2024
2023-084BF	-	-	-	-	-	-	-	-	8 November 2024
2021-009AK	-	-	-	-	-	-	-	-	10 November 2024
2022-104K	-	-	-	-	-	-	-	-	10 November 2024
2020-038AX	-	-	-	-	-	-	-	-	12 November 2024
2021-006BT	-	-	-	-	-	-	-	-	13 November 2024
2023-084AW	-	-	-	-	-	-	-	-	13 November 2024
2023-084AY	-	-	-	-	-	-	-	-	13 November 2024
2023-084BA	-	-	-	-	-	-	-	-	13 November 2024
2023-084BD	-	-	-	-	-	-	-	-	14 November 2024
1991-082CG	-	-	-	-	-	-	-	-	16 November 2024
2023-084AT	-	-	-	-	-	-	-	-	16 November 2024
2023-084AV	-	-	-	-	-	-	-	-	16 November 2024
2023-054W	-	-	-	-	-	-	-	-	18 November 2024
2023-170L	-	-	-	-	-	-	-	-	21 November 2024
2023-084AP	-	-	-	-	-	-	-	-	22 November 2024

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)		
2020-061Q	-	-	-	-	-	-	-	-	23 November 2024
2023-054U	-	-	-	-	-	-	-	-	23 November 2024
2020-038D	-	-	-	-	-	-	-	-	24 November 2024
2020-038AN	-	-	-	-	-	-	-	-	24 November 2024
2020-061S	-	-	-	-	-	-	-	-	26 November 2024
2023-001AC	-	-	-	-	-	-	-	-	26 November 2024
2020-061AB	-	-	-	-	-	-	-	-	27 November 2024
2022-002CV	-	-	-	-	-	-	-	-	28 November 2024
2023-013P	-	-	-	-	-	-	-	-	28 November 2024
2023-203C	-	-	-	-	-	-	-	-	28 November 2024
2020-019E	-	-	-	-	-	-	-	-	29 November 2024

The following objects were not previously reported and were no longer in orbit as at 2359Z on 30 November 2024:

None.

The following objects were deployed on a non-Earth celestial body:

None.

Additional information:

None.

Abbreviations and key

Location of the launch: AFETR, United States Air Force Eastern Test Range; and AFWTR, United States Air Force Western Test Range.

General function of the space object:

- A Spacecraft engaged in investigation of spaceflight techniques and technology
- B Spacecraft engaged in research and exploration of the upper atmosphere or outer space
- 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