United Nations ST/SG/SER.E/877

Secretariat

Distr.: General
9 October 2020

Original: English

Committee on the Peaceful Uses of Outer Space

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

Note verbale dated 31 January 2019 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 the period from October 2017 to August 2018 (see annexes I–XI).[1]

The United States requests that the space objects contained in the annexes 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 space objects referenced in the annexes were entered into the Register of Objects Launched into Outer Space on 5 March 2019.

Annex I

Registration data on space launches by the United States of America for October 2017*

The following report supplements the registration data on United States launches as at 31 October 2017. All launches were made from the territory of the United States unless otherwise specified.

International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Basic orbital characteristics*				*General function of the space object*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
The following objects were launched since the last report and remain in orbit:								
2017-061A	Iridium 133	9 October 2017	–	97	86.7	636	617	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061B	Iridium 100	9 October 2017	–	97	86.7	636	619	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061C	Iridium 122	9 October 2017	–	97	86.7	636	616	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061D	Iridium 129	9 October 2017	–	97	86.7	636	615	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061E	Iridium 119	9 October 2017	–	97	86.7	636	615	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061F	Iridium 107	9 October 2017	–	97	86.7	636	614	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061G	Iridium 132	9 October 2017	–	97	86.7	636	614	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061H	Iridium 136	9 October 2017	–	97	86.7	636	613	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061J	Iridium 139	9 October 2017	–	97	86.7	636	612	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-061K	Iridium 125	9 October 2017	–	97	86.7	636	612	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-063B	Falcon 9 R/B	11 October 2017	–	727.6	27.9	40 524	314	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2017-066A	USA 279	15 October 2017	–	640.5	18.8	35 772	742	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-067B	Falcon 9 R/B	30 October 2017	–	930.4	22	50 091	291	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2017-068A	SkySat C11	31 October 2017	–	94.8	97.3	533	505	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
2017-068B	SkySat C10	31 October 2017	–	94.8	97.4	532	500	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068C	SkySat C9	31 October 2017	–	94.8	97.4	531	501	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068D	SkySat C8	31 October 2017	–	94.8	97.4	531	502	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068E	SkySat C7	31 October 2017	–	94.8	97.4	531	503	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068F	SkySat C6	31 October 2017	–	94.8	97.4	531	503	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068H	Minotaur-C R/B	31 October 2017	–	94.8	97.4	530	505	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2017-068J	Flock 3M 1	31 October 2017	–	94.8	97.3	525	504	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068K	Flock 3M 3	31 October 2017	–	94.8	97.4	529	505	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068L	Flock 3M 4	31 October 2017	–	94.8	97.3	528	505	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-068M	Flock 3M 2	31 October 2017	–	94.8	97.3	528	506	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report:								
1998-067NE	Kestrel Eye 2M	14 August 2017	Deployed from Kibo Module on 24 October 2017	92.5	51.6	404	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067NF	SIMPL (HISat)	27 October 2017	Deployed from Kibo Module on 27 October 2017	92.6	51.64	404	400	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 October 2017:								
None.								
The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 October 2017:								
None.								
The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 October 2017:								
1998-067JU, 2017-038B								
The following objects were launched since the last report but did not achieve orbit:								
None.								
Revisions that should be made to previously reported data:								
None.								

Annex II

Registration data on space launches by the United States of America for November 2017*

The following report supplements the registration data on United States launches as at 30 November 2017. All launches were made from the territory of the United States unless otherwise specified.

International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Basic orbital characteristics*				*General function of the space object*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
The following objects were launched since the last report and remain in orbit:								
2017-071A	Cygnus OA-8	12 November 2017	–	92.2	51.6	393	373	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071E	LEMUR 2 RocketJonah	12 November 2017	–	93.6	63.7	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071F	AeroCube 7B	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071G	AeroCube 7C	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071H	ChefSat	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071J	LEMUR 2 YongLin	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071K	LEMUR 2 Kevin	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071L	LEMUR 2 BrianDavie	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071M	LEMUR 2 RomaCoste	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071N	Asgardia 1	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071P	ISARA	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071Q	LEMUR 2 McCullagh	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071R	Fauna	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
2017-071S	LEMUR 2 Dunlop	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-071T	LEMUR 2 Liu-Pou-Chun	12 November 2017	–	93.6	51.6	451	450	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-073A	NOAA-20	18 November 2017	–	97.4	97.7	830	466	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-073C	Mirata	18 November 2017	–	97.4	97.6	820	454	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-073D	MakerSat 0	18 November 2017	–	97.4	97.7	820	453	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-073E	AO-91	18 November 2017	–	97.4	97.7	820	453	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-073F	EagleSat 1	18 November 2017	–	97.4	97.7	820	453	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report:								
1998-067NG	EcAMSat	12 November 2017	Deployed from Kibo Module on 20 November 2017	92.5	51.6	404	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067NH	Asteria	14 August 2017	Deployed from Kibo Module on 21 November 2017	92.5	51.6	404	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067NJ	Dellinger (RBLE)	14 August 2017	Deployed from Kibo Module on 20 November 2017	92.5	51.6	404	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067NK	TechEdSat 6	12 November 2017	Deployed from Kibo Module on 20 November 2017	92.5	51.6	404	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067NL	Osiris-3U	14 August 2017	Deployed from Kibo Module on 21 November 2017	92.5	51.6	404	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 30 November 2017:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 30 November 2017:

None.

The following objects identified in a previous report were no longer in orbit as at 2359Z on 30 November 2017:

1997-020A, 2013-064AA, 1998-067JC

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Annex III

Registration data on space launches by the United States of America for December 2017*

The following report supplements the registration data on United States launches as at 31 December 2017. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2017-080A	Dragon CRS-13	15 December 2017	–	92.65	51.64	406	403	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083A	Iridium 135	23 December 2017	–	97.08	86.69	628	611	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083B	Iridium 138	23 December 2017	–	97.08	86.69	627	611	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083C	Iridium 116	23 December 2017	–	97.08	86.69	627	610	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083D	Iridium 130	23 December 2017	–	98.18	86.61	672	671	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083E	Iridium 151	23 December 2017	–	97.07	86.69	627	610	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083F	Iridium 134	23 December 2017	–	98.72	86.53	698	697	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083G	Iridium 137	23 December 2017	–	97.06	86.69	627	609	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083H	Iridium 141	23 December 2017	–	97.06	86.69	627	609	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083J	Iridium 153	23 December 2017	–	97.05	86.69	626	609	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2017-083K	Iridium 131	23 December 2017	–	97.98	86.6	670	654	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report:								
None.								

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 December 2017:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 December 2017:

None.

The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 December 2017:

1997-020C, 2002-012B, 1998-067JB, 1998-067JV, 2017-071A

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Annex IV

Registration data on space launches by the United States of America for January 2018*

The following report supplements the registration data on United States launches as at 31 January 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-001A	USA 280	8 January 2018	–	98	52	659	657	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004H	Corvus BC3	12 January 2018	SRI	94.6	97.5	508	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004J	Flock 3PP 3	12 January 2018	SRI	94.6	97.5	508	492	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004K	Flock 3PP 2	12 January 2018	SRI	94.6	97.5	508	492	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004L	Flock 3PP 1	12 January 2018	SRI	94.6	97.5	508	492	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004M	Flock 3PP 4	12 January 2018	SRI	94.6	97.5	508	492	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004N	LEMUR 2 McCaffetry	12 January 2018	SRI	94.5	97.5	507	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004P	LEMUR 2 PeterWebster	12 January 2018	SRI	94.5	97.5	507	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004Q	LEMUR 2 BrownCow	12 January 2018	SRI	94.5	97.5	507	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004R	LEMUR 2 DaveWilson	12 January 2018	SRI	94.5	97.5	507	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004S	DemoSat 2	12 January 2018	SRI	94.5	97.5	507	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004V	Arkyd 6A	12 January 2018	SRI	94.5	97.5	507	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004W	MicroMAS 2A	12 January 2018	SRI	94.5	97.5	506	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
2018-004AC	AO-92	12 January 2018	SRI	94.5	97.5	506	491	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004AE	Spacebee-4	12 January 2018	SRI	94.5	97.5	505	490	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004AF	Spacebee-3	12 January 2018	SRI	94.5	97.5	505	490	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004AG	Spacebee-2	12 January 2018	SRI	94.5	97.5	505	490	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-004AH	Spacebee-1	12 January 2018	SRI	94.5	97.5	505	490	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-005A	USA 281	12 January 2018	–	106.3	106	1 055	1 030	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-009A	SBIRS GEO 4 (USA 282)	20 January 2018	–	633.9	16.8	35 901	231	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-010A	Dove Pioneer	21 January 2018	RLLC	92.5	82.9	513	290	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-010C	LEMUR 2 Marshall	21 January 2018	RLLC	92.5	82.9	513	290	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-010E	LEMUR 2 Tallhamn-ATC	21 January 2018	RLLC	94.9	82.9	536	498	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-013B	Falcon 9 R/B	31 January 2018	–	1 086.4	25.1	56 990	268	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

The following objects not previously reported have been identified since the last report:

None.

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 January 2018:

1998-067KZ

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 January 2018:

None.

The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 January 2018:

1997-056E, 1998-067JE, 2017-080A

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Abbreviations: RLLC, Rocket Lab Launch Complex, New Zealand; SRI: Satish Dhawan Space Centre, India.

Annex V

Registration data on space launches by the United States of America for February 2018*

The following report supplements the registration data on United States launches as at 28 February 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-014C	LEMUR 2 Jin-Luen	1 February 2018	VOSTO	96.2	97.7	602	584	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-014D	LEMUR 2 UramChanSol	1 February 2018	VOSTO	96.2	97.7	602	584	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-014E	LEMUR 2 Kadi	1 February 2018	VOSTO	96.2	97.7	602	584	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-014F	LEMUR 2 TheNickMolo	1 February 2018	VOSTO	96.2	97.7	602	584	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-017A	Tesla Roadster/Falcon 9H	6 February 2018	–	164.6	29	6 955	183	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-020B	Tintin A	22 February 2018	–	94.7	97.5	534	513	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-020C	Tintin B	22 February 2018	–	94.7	97.5	534	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report:								
None.								
The following objects not previously reported have been identified since the last report but were no longer in orbit as at 23 59Z on 28 February 2018:								
None.								
The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 28 February 2018:								
2018-020D	Falcon 9	22 February 2018	–	94.7	97.5	534	514	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
The following objects identified in a previous report were no longer in orbit as at 2359Z on 28 February 2018:								
1997-069A, 1997-082E, 1998-067KA, 1998-067KC, 2006-011G, 1998-067JM, 1998-067JW								

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

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Abbreviations: VOSTO, Vostochny Cosmodrome, Russian Federation.

Annex VI

Registration data on space launches by the United States of America for March 2018*

The following report supplements the registration data on United States launches as at 31 March 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-022A	GOES S	1 March 2018	–	763.2	9.6	34 951	7 623	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-022B	Atlas 5 Centaur R/B	1 March 2018	–	783.3	9.5	35 290	8 251	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-023B	PODsat	6 March 2018	–	387.2	27	22 253	192	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-023C	Falcon 9 R/B	6 March 2018	–	386.7	26.9	22 221	187	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-030A	Iridium 144	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030B	Iridium 149	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030C	Iridium 157	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030D	Iridium 140	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030E	Iridium 145	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030F	Iridium 146	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030G	Iridium 148	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030H	Iridium 142	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-030J	Iridium 150	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
2018-030K	Iridium 143	30 March 2018	–	97	86.7	644	625	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

The following objects not previously reported have been identified since the last report:

None.

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 March 2018:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 March 2018:

None.

The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 March 2018:

1997-043D, 2002-012A, 2011-029A, 1998-067HP, 1998-067JH, 1998-067JX, 1998-067JY, 1998-067JZ, 1998-067KB, 1998-067LK, 1998-067MS

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Annex VII

Registration data on space launches by the United States of America for April 2018*

The following report supplements the registration data on United States launches as at 30 April 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-032A	Dragon CRS-14	2 April 2018	–	92.6	51.6	407	402	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-036A	USA 283	14 April 2018	–	622.4	26.1	35 352	187	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-036B	USA 284	14 April 2018	–	622.4	26.1	35 352	187	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-036C	Atlas Centaur R/B	14 April 2018	–	622.4	26.1	35 352	187	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-036E	USA 285	14 April 2018	–	622.4	26.1	35 352	187	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-036F	USA 286	14 April 2018	–	622.4	26.1	35 352	187	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-036G	USA 287	14 April 2018	–	622.4	26.1	35 352	187	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-038A	TESS	18 April 2018	–	13 168.8	28.9	355 637	1 056	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-038B	Falcon 9 R/B	18 April 2018	–	13 168.8	28.9	355 637	1 056	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

The following objects not previously reported have been identified since the last report:

None.

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 23 59Z on 30 April 2018:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 30 April 2018:

None.

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	

The following objects identified in a previous report were no longer in orbit as at 2359Z on 30 April 2018:

1995-074A, 1997-030E, 1997-056A, 2002-005C, 2013-064T, 1998-067HZ, 1998-067JA, 1998-067JG, 1998-067JP, 1998-067JS, 1998-067JT, 1998-067LC

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Annex VIII

Registration data on space launches by the United States of America for May 2018*

The following report supplements the registration data on United States launches as at 31 May 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-042A	Insight	5 May 2018	–	88.1	64	184	180	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-042B	Marco-A	5 May 2018	–	88.1	64	184	180	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-042C	Marco-B	5 May 2018	–	88.1	64	184	180	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-042D	Atlas 5 Centaur R/B	5 May 2018	–	88.1	64	184	180	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-044B	Falcon 9 R/B	11 May 2018	–	628.4	19.3	35 544	307	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-046A	Cygnus OA-9	21 May 2018	–	89.9	51.6	323	229	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-046B	Antares R/B	21 May 2018	–	87.3	51.5	153	137	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-047A	Grace-FO 1	22 May 2018	–	94.4	89	523	502	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-047B	Grace-FO 2	22 May 2018	–	94.4	89	518	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-047C	Iridium 161	22 May 2018	–	96.6	86.7	709	495	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-047D	Iridium 152	22 May 2018	–	96.7	86.7	713	494	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-047E	Iridium 147	22 May 2018	–	96.7	86.7	709	498	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-047F	Iridium 110	22 May 2018	–	96.7	86.7	720	483	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
2018-047G	Iridium 162	22 May 2018	–	96.7	86.7	720	487	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

The following objects not previously reported have been identified since the last report:

None.

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 May 2018:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 May 2018:

None.

The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 May 2018:

1997-043B, 1997-056D, 1998-032B, 1998-067KP, 1998-067LL, 1998-067NK, 1999-032B, 2004-045C, 2013-066W, 2018-032A

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Annex IX

Registration data on space launches by the United States of America for June 2018*

The following report supplements the registration data on United States launches as at 30 June 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-049B	Falcon 9 R/B	4 June 2018	–	1 124.03	25.98	58 611	254	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-055A	Dragon CRS-15	29 June 2018	–	92.67	51.64	408	402	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report:								
None.								
The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 30 June 2018:								
None.								
The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 30 June 2018:								
None.								
The following objects identified in a previous report were no longer in orbit as at 2359Z on 30 June 2018:								
1998-067KK, 1998-067KH, 2018-046B, 1998-021G, 1998-067JD, 1998-067KN, 1998-067JR								
The following objects were launched since the last report but did not achieve orbit:								
None.								
Revisions that should be made to previously reported data:								
None.								

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

Annex X

Registration data on space launches by the United States of America for July 2018*

The following report supplements the registration data on United States launches as at 31 July 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-059B	Falcon 9 R/B	22 July 2018	–	318	27.01	17 856	243	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-061A	Iridium 160	25 July 2018	–	100.4	86.7	779	773	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061B	Iridium 166	25 July 2018	–	99.08	86.7	716	714	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061C	Iridium 158	25 July 2018	–	100.4	86.7	779	776	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061D	Iridium 165	25 July 2018	–	100.03	86.7	762	758	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061E	Iridium 155	25 July 2018	–	100.4	86.7	779	776	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061F	Iridium 154	25 July 2018	–	99.07	86.7	716	713	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061G	Iridium 163	25 July 2018	–	100.38	86.7	778	775	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061H	Iridium 156	25 July 2018	–	100.4	86.7	779	776	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061J	Iridium 164	25 July 2018	–	99.07	86.7	715	713	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-061K	Iridium 159	25 July 2018	–	100.4	86.7	779	776	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-046C	Aerocube 12A	16 July 2018	–	94.2	51.6	488	477	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-046D	Aerocube 12B	16 July 2018	–	94.2	51.6	488	477	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

* 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*
				Nodal period (min)	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	
2018-046E	LEMUR 2 Vu	16 July 2018	–	94.2	51.6	487	476	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-046F	LEMUR 2 Alexander	16 July 2018	–	94.2	51.6	487	476	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-046G	LEMUR 2 TomHenderson	16 July 2018	–	94.2	51.6	487	476	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-046H	LEMUR 2 Yuasa	16 July 2018	–	94.2	51.6	487	476	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following objects not previously reported have been identified since the last report:								
1998-067NW	RainCube	21 May 2018	Deployed from Kibo Module on 13 July 2018	92.54	51.64	402	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067PA	EquiSat	21 May 2018	Deployed from Kibo Module on 13 July 2018	92.52	51.64	402	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

None.

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 July 2018:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 July 2018:

None.

The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 July 2018:

1997-069B, 1998-021D, 1998-021F, 1998-032E, 1998-051B, 2018-046A

The following objects were launched since the last report but did not achieve orbit:

None.

Revisions that should be made to previously reported data:

None.

Annex XI

Registration data on space launches by the United States of America for August 2018*

The following report supplements the registration data on United States launches as at 31 August 2018. All launches were made from the territory of the United States unless otherwise specified.

				Basic orbital characteristics				
International designation	*Name of the space object*	*Date of the launch*	*Location of the launch*	*Nodal period (min)*	*Inclination (degrees)*	*Apogee (km)*	*Perigee (km)*	*General function of the space object*
The following objects were launched since the last report and remain in orbit:								
2018-064B	Falcon 9 R/B	7 August 2018	–	513.3	27	29 534	182	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-065A	Parker Solar Probe	12 August 2018	–		Heliocentric orbit			Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2018-065B	Delta 4 R/B (second stage)	12 August 2018	–		Heliocentric orbit			Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2018-065C	Delta 4 R/B (third stage)	12 August 2018	–		Heliocentric orbit			Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
The following objects not previously reported have been identified since the last report:								
None.								
The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2359Z on 31 August 2018:								
None.								
The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 August 2018:								
None.								
The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 August 2018:								
1997-034D, 1998-021E, 1998-048B, 1998-051C, 2002-031B, 1998-067JN, 1998-067MA, 2018-055A								
The following objects were launched since the last report but did not achieve orbit:								
None.								
Revisions that should be made to previously reported data:								
None.								

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

ST/SG/SER.E/877