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**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 May 2017 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 September to December 2016 (see annexes I–IV).¹

The United States requests that the space objects contained in the annexes to this 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 as at 31 July 2017.



Annex I

Registration data on space launches by the United States of America for September 2016*

The following report supplements the registration data on United States space launches as at 30 September 2016. 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:								
2016-055A	OSIRIS-REx	8 September 2016	–	88.8	27	270	163	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-055B	Atlas 5 Centaur R/B	8 September 2016	–	88.8	27	270	163	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2016-058B	SkySat C4	16 September 2016	French Guiana	94.66	97.42	502	502	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-058C	SkySat C5	16 September 2016	French Guiana	94.66	97.43	503	502	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-058D	SkySat C2	16 September 2016	French Guiana	94.66	97.42	502	499	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-058E	SkySat C3	16 September 2016	French Guiana	94.66	97.42	502	499	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-059E	Pathfinder 1	26 September 2016	Sriharikota, India	98.3	98.2	721	679	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:								
1998-067KH	Flock 2EP 13	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KJ	Flock 2EP 14	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KK	Flock 2EP 16	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	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.

<i>International designation</i>	<i>Name of the space object</i>	<i>Date of the launch</i>	<i>Location of the launch</i>	<i>Basic orbital characteristics</i>				<i>General function of the space object</i>
				<i>Nodal period (min)</i>	<i>Inclination (degrees)</i>	<i>Apogee (km)</i>	<i>Perigee (km)</i>	
1998-067KL	Flock 2EP 15	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KM	Flock 2EP 18	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KN	Flock 2EP 17	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KP	Flock 2EP 19	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KQ	Flock 2EP 20	14 September 2016	Launched from ISS Kibo Module	92.5	51.6	406	394	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 September 2016:								
None.								
The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 30 September 2016:								
None.								
The following objects identified in a previous report were no longer in orbit as at 2359Z on 30 September 2016:								
1966-056A, 2003-010C, 1998-067HB, 1998-067HF, 1998-067HH, 1998-067HN, 2016-050B								
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 October 2016*

The following report supplements the registration data on United States space launches as at 31 October 2016. 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:								
2016-062A	Cygnus OA-5	17 October 2016	—	94.61	51.64	504	496	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-062B	Antares R/B	17 October 2016	—	87.41	51.57	155	137	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2016-062C	Lemur 2 Xiaoqing	17 October 2016	—	94.65	51.64	507	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-062D	Lemur 2 Sokolsky	17 October 2016	—	94.65	51.64	507	496	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-062E	Lemur 2 Anubhavthakur	17 October 2016	—	94.66	51.64	508	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-062F	Lemur 2 Wingo	17 October 2016	—	94.65	51.64	507	497	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 31 October 2016:								
None.								
The following objects achieved orbit since the last report but were no longer in orbit as at 2359Z on 31 October 2016:								
None.								
The following objects identified in a previous report were no longer in orbit as at 2359Z on 31 October 2016:								
1998-067HC, 1998-067HD, 1998-067HE, 1998-067HK, 1998-067HL, 1998-067HM								
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 III

Registration data on space launches by the United States of America for November 2016*

The following report supplements the registration data on United States space launches as at 30 November 2016. 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:								
2016-067A	Worldview-4	11 November 2016	–	96.8	98	614	609	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067B	RAVAN	11 November 2016	–	96.2	98	591	579	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067C	CELTEE 1	11 November 2016	–	96.2	98	593	581	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067D	Opticube 04	11 November 2016	–	96.2	98	594	581	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067E	Aerocube 8D	11 November 2016	–	96.2	98	592	583	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067F	Aerocube 8C	11 November 2016	–	96.2	98	593	583	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067G	Prometheus 2-1	11 November 2016	–	96.2	98	595	586	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067H	Prometheus 2-3	11 November 2016	–	96.1	98	600	586	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-067J	Atlas 5 Centaur R/B	11 November 2016	–	0	0	0	0	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2016-071A	GOES 16	19 November 2016	–	781	10.7	35 272	8 157	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-071B	Atlas 5 Centaur R/B	19 November 2016	–	761.9	10.8	34 934	7 574	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

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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:								
None.								
The following objects not previously reported have been identified since the last report but are no longer in orbit as at 2359Z on 30 November 2016:								
None.								
The following objects achieved orbit since the last report but are no longer in orbit as at 2359Z on 30 November 2016:								
None.								
The following objects identified on a previous report are no longer in orbit as at 2359Z on 30 November 2016:								
2016-062A, 2016-062B								
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 31 December 2016*

The following report supplements the registration data on United States space launches as at 31 December 2016. 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:								
2016-075A	WGS 8 (USA 272)	7 December 2016	–	0	0	0	0	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078A	CYGFM05	15 December 2016	–	95.15	34.96	538	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078B	CYGFM04	15 December 2016	–	95.13	34.95	535	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078C	CYGFM02	15 December 2016	–	95.14	34.96	536	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078D	CYGFM01	15 December 2016	–	95.16	34.95	538	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078E	CYGFM08	15 December 2016	–	95.15	34.95	537	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078F	CYGFM06	15 December 2016	–	95.12	34.96	534	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078G	CYGFM07	15 December 2016	–	95.12	34.95	534	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078H	CYGFM03	15 December 2016	–	95.11	34.96	534	514	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-078J	Pegasus R/B	15 December 2016	–	95.08	34.95	531	514	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
2016-079A	Echostar 19	18 December 2016	–	1 436.11	0.02	35 792	35 781	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-079B	Atlas 5 Centaur R/B	18 December 2016	–	1 218.3	25.62	62 692	123	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

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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:								
None.								
The following objects not previously reported have been identified since the last report but are no longer in orbit as at 2359Z on 31 December 2016:								
2016-075B	Delta 4 R/B	7 December 2016	–	0	0	0	0	Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects
None.								
The following objects achieved orbit since the last report but are no longer in orbit as at 2359Z on 31 December 2016:								
None.								
The following objects identified on a previous report are no longer in orbit as at 2359Z on 31 December 2016:								
2016-075B								
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.								