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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 18 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 May to August 2016 (see annexes I–IV).<sup>1</sup>

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.

<sup>&</sup>lt;sup>1</sup> 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.



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## S Annex I

### **Registration data on space launches by the United States of America for May 2016**<sup>\*</sup>

The following report supplements the registration data on United States space launches as at 31 May 2016. All launches were made from the territory of the United States unless otherwise specified.

				Ba	sic orbital ch	naracterist	ics	
	Name of the space object	Date of the Location launch launch	Location of the launch	Nodal period (min)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object
The following	g objects were laun	ched since the	last report and re	main in or	bit:			
2016-028B	Falcon 9 R/B	6 May 2016	_	633.3	23.7	35 915	188	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
2016-031B	Falcon 9 R/B	27 May 2016	_	1 968.8	21.1	90 939	375	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
The following	g objects not previo	ously reported	have been identif	ied since t	he last repo	rt:		
1998-067HU	MinXSS	16 May 2016	Launched from ISS Kibo Module	92.4	51.6	394	392	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067HV	CADRE	16 May 2016	Launched from ISS Kibo Module	92.3	51.6	391	388	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067HW	STMSat 1	16 May 2016	Launched from ISS Kibo Module	92.4	51.6	394	392	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067HX	NODeS 1	16 May 2016	Launched from ISS Kibo Module	92.4	51.6	396	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067HY	NODeS 2	16 May 2016	Launched from ISS Kibo Module	92.4	51.6	396	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067HZ	Flock 2EP 1	17 May 2016	Launched from ISS Kibo Module	92.4	51.6	399	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JA	Flock 2EP 2	17 May 2016	Launched from ISS Kibo Module	92.4	51.6	398	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.

				Ba	isic orbital ch	naracteristi	cs	
International designation	Name of the space object	Date of the launch		Nodal period (min)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object
1998-067JB	Flock 2EP 3	17 May 2016	Launched from ISS Kibo Module	92.4	51.6	398	394	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JC	Flock 2EP 4	17 May 2016	Launched from ISS Kibo Module	92.4	51.6	398	393	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JD	Flock 2E 1	17 May 2016	Launched from ISS Kibo Module	92.4	51.6	398	397	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JE	Flock 2E 2	17 May 2016	Launched from ISS Kibo Module	92.4	51.6	397	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JF	Lemur 2 Theresacondor	18 May 2016	Launched from ISS Kibo Module	92.4	51.6	395	393	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JG	Flock 2E 3	18 May 2016	Launched from ISS Kibo Module	92.5	51.6	398	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JH	Flock 2E 4	18 May 2016	Launched from ISS Kibo Module	92.4	51.6	398	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JJ	Lemur 2 Nick- Allain	18 May 2016	Launched from ISS Kibo Module	92.5	51.6	402	400	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JK	Lemur 2 Kane	18 May 2016	Launched from ISS Kibo Module	92.5	51.6	402	400	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JL	Lemur 2 Jeff	18 May 2016	Launched from ISS Kibo Module	92.5	51.6	402	401	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JM	Flock 2E 6	30 May 2016	Launched from ISS Kibo Module	92.5	51.6	399	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JN	Flock 2E 5	30 May 2016	Launched from ISS Kibo Module	92.5	51.6	400	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

International designation				Ba	sic orbital ch	aracteristi	CS	
	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
1998-067JP	Flock 2E 7	31 May 2016	Launched from ISS Kibo Module	92.4	51.6	399	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JQ	Flock 2E 8	31 May 2016	Launched from ISS Kibo Module	92.5	51.6	399	395	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JR	Flock 2EP 5	31 May 2016	Launched from ISS Kibo Module	92.5	51.6	401	396	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

None.

The following objects achieved orbit since the last report but are no longer in orbit as at 2359Z on 31 May 2016:

None.

The following objects identified on a previous report are no longer in orbit as at 2359Z on 31 May 2016:

2005-014A, 2013-064W, 1998-067GF, 1998-067HJ, 2016-024A, 1998-067GH

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.

### **Registration data on space launches by the United States of America for June 2016**<sup>\*</sup>

The following report supplements the registration data on United States space launches as at 30 June 2016. All launches were made from the territory of the United States unless otherwise specified.

		•			•			
				Ва	asic orbital cl	naracteristic	25	
International Name of the designation space object		Location of the launch	Nodal period (min)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	
The following	g objects were la	unched since	e the last report an	d remain in o	orbit:			
2016-036A	USA 268	11 June 2016	_	628.6	26.2	35 636	224	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-036B	Delta 4 R/B	11 June 2016	_	628.6	26.2	35 636	224	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
2016-038C	Falcon 9 R/B	15 June 2016	_	1 223.5	23.9	62 678	353	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
2016-039B	Echostar 1B	18 June 2016	French Guiana	1 436.2	0	35 799	35 778	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040C	SkySat C1	22 June 2016	India	94.6	97.5	503	499	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040H	Flock 2P 6	22 June 2016	India	94.7	97.5	515	498	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040K	Flock 2P 11	22 June 2016	India	94.7	97.5	515	498	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040L	Flock 2P 2	22 June 2016	India	94.7	97.5	515	498	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040M	Flock 2P 9	22 June 2016	India	94.7	97.5	515	498	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040N	Flock 2P 4	22 June 2016	India	94.7	97.5	515	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040P	Flock 2P 10	22 June 2016	India	94.7	97.5	514	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040Q	Flock 2P 8	22 June 2016	India	94.7	97.5	515	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040R	Flock 2P 12	22 June 2016	India	94.7	97.5	514	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

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 $^{\ast}\,$  The registration data are reproduced in the form in which they were received.

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			Location of the launch	Ba	asic orbital ch	haracteristic	<i>cs</i>	General function of the space object
	Name of the space object	Date of the launch		Nodal period (min)	Inclination (degrees)	Apogee (km)	Perigee (km)	
2016-040S	Flock 2P 7	22 June 2016	India	94.7	97.5	514	497	Spacecraft engaged in practical applications and uses o space technology such as weather or communications
2016-040T	Flock 2P 5	22 June 2016	India	94.7	97.5	514	497	Spacecraft engaged in practical applications and uses o space technology such as weather or communications
2016-040U	Flock 2P 1	22 June 2016	India	94.7	97.5	514	497	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-040V	Flock 2P 3	22 June 2016	India	94.7	97.5	514	497	Spacecraft engaged in practical applications and uses o space technology such as weather or communications
2016-041A	MUOS 5	24 June 2016	-	954.5	9.76	35 693	15 778	Spacecraft engaged in practical applications and uses o space technology such as weather or communications
2016-041B	Atlas 5 Centaur R/B	24 June 2016	-	687.2	18.8	35 168	3 668	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
The following	objects not pre-	viously repo	rted have been ident	tified since	the last rep	ort:		-
2016-013A	SES 9	4 March 2016	-	1 436.08	0.05	35 794	35 779	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-019B	Lemur 2 Drmuzz	23 March 2016	-	92.29	51.64	389	384	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-019C	Lemur 2 Bridgeman	23 March 2016	-	92.2	51.64	358	379	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-019D	Lemur 2 Nate	23 March 2016	-	92.22	51.64	386	380	Spacecraft engaged in practical applications and uses space technology such as weather or communications
2016-019E	Lemur 2 Cubecheese	23 March 2016	-	92.21	51.64	386	380	Spacecraft engaged in practical applications and uses space technology such as weather or communications
1998-067JS	Flock 2EP 6	31 May 2016	Launched from ISS Kibo Module	92.4	51.6	398	391	Spacecraft engaged in practical applications and uses space technology such as weather or communications
1998-067JT	Flock 2EP 8	31 May 2016	Launched from ISS Kibo Module	92.4	51.6	394	393	Spacecraft engaged in practical applications and uses space technology such as weather or communications
1998-067JU	Flock 2EP 7	31 May 2016	Launched from ISS Kibo Module	92.4	51.6	394	393	Spacecraft engaged in practical applications and uses space technology such as weather or communications
1998-067JV	Flock 2E 9	31 May 2016	Launched from ISS Kibo Module	92.4	51.6	397	389	Spacecraft engaged in practical applications and uses space technology such as weather or communications
1998-067JW	Flock 2E 10	31 May 2016	Launched from ISS Kibo Module	92.4	51.6	397	390	Spacecraft engaged in practical applications and uses space technology such as weather or communications
1998-067JX	Flock 2E 12	1 June 2016	Launched from ISS Kibo Module	92.4	51.6	397	390	Spacecraft engaged in practical applications and uses space technology such as weather or communications

				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
1998-067JY	Flock 2E 11	1 June 2016	Launched from ISS Kibo Module	92.4	51.6	396	389	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067JZ	Flock 2EP 9	1 June 2016	Launched from ISS Kibo Module	92.4	51.6	396	389	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KA	Flock 2EP 10	1 June 2016	Launched from ISS Kibo Module	92.4	51.6	397	389	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KB	Flock 2EP 11	2 June 2016	Launched from ISS Kibo Module	92.4	51.6	398	390	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
1998-067KC	Flock 2EP 12	2 June 2016	Launched from ISS Kibo Module	92.4	51.6	397	391	Spacecraft engaged in practical applications and uses of space technology such as weather or communications

30 June 2016:

None.

The following objects achieved orbit since the last report but are no longer in orbit as at 2359Z on 30 June 2016: None.

The following objects identified on a previous report are no longer in orbit as at 2359Z on 30 June 2016:

1998-067GL, 1998-067GG, 1998-067GK, 2016-019A

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.

# <sup>§</sup> Annex III

### **Registration data on space launches by the United States of America for July 2016**<sup>\*</sup>

The following report supplements the registration data on United States space launches as at 31 July 2016. All launches were made from the territory of the United States unless otherwise specified.

				В	asic orbital c	haracterist	ics	
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	g objects were lau	nched since th	ne last report and re	main in or	bit:			
2016-046A	Dragon CRS- 9	18 July 2016	-	92.61	51.64	404	401	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
2016-047A	USA 269	28 July 2016	_	414.2	25.3	5 039	173	Spacecraft engaged in practical applications and uses of space technology such as weather or communications
The following	g objects not previ	iously reporte	d have been identifi	ed since the	he last repor	t:		
None.								
e	objects not previ	iously reported	d have been identifi	ed since t	he last repor	t but are r	no longer i	n orbit as at 2359Z on 31 July 2016:
None.								
	g objects achieved	l orbit since th	e last report but are	e no longei	in orbit as a	at 2359Z o	on 31 July	2016:
None.								
-	5	1	is report are no long	ger in orbit	t as at 23592	2 on 31 Ju	ly 2016:	
	GJ, 1998-067GM	,						
	g objects were lau	nched since th	ne last report but die	l not achie	eve orbit:			
None.								
	t should be made	to previously	reported data:					
None.								

<sup>\*</sup> The registration data are reproduced in the form in which they were received.

### **Registration data on space launches by the United States of America for August 2016**<sup>\*</sup>

The following report supplements the registration data on United States space launches as at 31 August 2016. All launches were made from the territory of the United States unless otherwise specified.

			_	Вс	asic orbital ch	aracteristic	25	_
International designation	Name of the space object	Date of the Location of the launch launch	Location of the launch	Nodal period (min)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object
The following	objects were lau	nched since th	e last report and re	emain in or	bit:			
2016-050B	Falcon 9 R/B	14 August 2016	_	93.38	20.82	788	92	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
2016-052A	USA 270	19 August 2016	_	637.3	25.9	36 106	201	Spacecraft engaged in practical applications and uses o space technology such as weather or communications
2016-052B	USA 271	19 August 2016	_	637.3	25.9	36 106	201	Spacecraft engaged in practical applications and uses o space technology such as weather or communications
2016-052C	Delta 4 R/B	19 August 2016	_	637.3	25.9	36 106	201	Spent boosters, spent manoeuvring stage, shrouds and other non-functional objects
The following None.	objects not previ	iously reported	l have been identif	ied since t	he last repor	t:		
	objects not previ	iously reported	l have been identif	ied since t	he last repor	t but are n	o longer i	n orbit as at 2359Z on 31 August 2016:
	objects achieved	l orbit since th	e last report but ar	e no longe	r in orbit as	at 23597. o	on 31 Augu	ust 2016:
None.			• 1450 1 • p • 11 • a • a	e no ronge			in o r r rag	
The following	objects identifie	d on a previou	s report are no lon	ger in orbi	t as at 23592	Z on 31 Au	gust 2016	:
1998-067	GP, 1998-067GQ	), 1998-067GR	, 1998-067GS, 19	98-067HG	, 2016-046A	, 2013-064	4D	
The following	objects were lau	nched since th	e last report but di	d not achie	eve orbit:			
None.								
Revisions that	should be made	to previously i	reported data:					
None.								