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 7 December 2009 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) presents its compliments to the Secretary-General of the United Nations and, 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 space launches by the United States for the period from July to October 2009 (see annexes I-IV).
Annex I

Registration data on space launches by the United States of America for July 2009*

The following report supplements the registration data on United States launches as at 31 July 2009. All launches were made from the territory of the United States unless otherwise specified.

<table>
<thead>
<tr>
<th>International designation</th>
<th>Name of space object</th>
<th>Date of launch</th>
<th>Location of launch</th>
<th>Nodal period (min)</th>
<th>Inclination (degrees)</th>
<th>Apogee (km)</th>
<th>Perigee (km)</th>
<th>General function of space object</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-035A</td>
<td>TerreStar 1</td>
<td>1 July 2009</td>
<td>Kourou, French Guiana</td>
<td>634.20</td>
<td>6.0</td>
<td>35</td>
<td>911</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-037B</td>
<td>Falcon 1 R/B</td>
<td>14 July 2009</td>
<td>–</td>
<td>97.90</td>
<td>9.0</td>
<td>687</td>
<td>685</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-038B</td>
<td>DRAGONSat</td>
<td>15 July 2009</td>
<td>–</td>
<td>91.07</td>
<td>51.64</td>
<td>329</td>
<td>324</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-038C</td>
<td>ANDE debris (Pollux cylinder)</td>
<td>15 July 2009</td>
<td>–</td>
<td>91.06</td>
<td>51.64</td>
<td>329</td>
<td>324</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-038D</td>
<td>ANDE debris (Castor cylinder)</td>
<td>15 July 2009</td>
<td>–</td>
<td>91.09</td>
<td>51.64</td>
<td>327</td>
<td>321</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-038E</td>
<td>ANDE Pollux Sphere</td>
<td>15 July 2009</td>
<td>–</td>
<td>91.10</td>
<td>51.64</td>
<td>331</td>
<td>326</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-038F</td>
<td>ANDE Castor Sphere</td>
<td>15 July 2009</td>
<td>–</td>
<td>91.12</td>
<td>51.64</td>
<td>333</td>
<td>327</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-038G</td>
<td>ANDE debris (Avionics Deck)</td>
<td>15 July 2009</td>
<td>–</td>
<td>91.10</td>
<td>51.64</td>
<td>331</td>
<td>325</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-041D</td>
<td>AprizeSat 4</td>
<td>29 July 2009</td>
<td>Baikonur, Kazakhstan</td>
<td>97.50</td>
<td>98.1</td>
<td>674</td>
<td>602</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-041F</td>
<td>AprizeSat 3</td>
<td>29 July 2009</td>
<td>Baikonur, Kazakhstan</td>
<td>97.10</td>
<td>98.1</td>
<td>676</td>
<td>561</td>
<td>Spacecraft engaged in practical applications and uses of space technology</td>
</tr>
</tbody>
</table>

* The registration data are reproduced in the form in which they were received.
### Basic orbital characteristics

<table>
<thead>
<tr>
<th>International designation</th>
<th>Name of space object</th>
<th>Date of launch</th>
<th>Location of launch</th>
<th>Nodal period (min)</th>
<th>Inclination (degrees)</th>
<th>Apogee (km)</th>
<th>Perigee (km)</th>
<th>General function of space object</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-042C GeoEye 1 debris</td>
<td>6 September 2008</td>
<td>–</td>
<td>98.10</td>
<td>98.16</td>
<td>673</td>
<td>663</td>
<td></td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
</tbody>
</table>

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

- **2007-047D** Delta 2 debris
  - Date: 17 October 2007
  - Nodal period: 342.81 minutes
  - Inclination: 39.97 degrees
  - Apogee: 19,482 km
  - Perigee: 212 km
  - General function: Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

- **2008-042C** GeoEye 1 debris
  - Date: 6 September 2008
  - Nodal period: 98.10 minutes
  - Inclination: 98.16 degrees
  - Apogee: 673 km
  - Perigee: 663 km
  - General function: Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects

The following objects not previously reported have been identified since the last report but were no longer in orbit as at 2400Z on 31 July 2009:

- None.

The following object achieved orbit since the last report but was no longer in orbit as at 2400Z on 31 July 2009:

- **2009-038A** STS-127
  - Date: 15 July 2009
  - Nodal period: 91.10 minutes
  - Inclination: 51.6 degrees
  - Apogee: 336 km
  - Perigee: 328 km
  - General function: Reusable space transportation systems

The following objects identified in a previous report were no longer in orbit as at 2400Z on 31 July 2009:

- **1997-051HF, 1997-051LY**

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 August 2009*

The following report supplements the registration data on United States launches as at 31 August 2009. All launches were made from the territory of the United States unless otherwise specified.

The following objects were launched since the last report and remain in orbit:

<table>
<thead>
<tr>
<th>International designation</th>
<th>Name of space object</th>
<th>Date of launch</th>
<th>Location of launch</th>
<th>Nodal period (min)</th>
<th>Inclination (degrees)</th>
<th>Apogee (km)</th>
<th>Perigee (km)</th>
<th>General function of space object</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-043A Navstar 64 (USA 206)</td>
<td>17 August 2009</td>
<td>–</td>
<td>356.8</td>
<td>40.0</td>
<td>20 370</td>
<td>203</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
<td></td>
</tr>
<tr>
<td>2009-043B Delta 2 R/B (1)</td>
<td>17 August 2009</td>
<td>–</td>
<td>99.1</td>
<td>37.9</td>
<td>1 235</td>
<td>196</td>
<td>Spent boosters, spent manouevring stages, shrouds and other non-functional objects</td>
<td></td>
</tr>
<tr>
<td>2009-043C Delta 2 R/B (2)</td>
<td>17 August 2009</td>
<td>–</td>
<td>356.5</td>
<td>40.0</td>
<td>20 351</td>
<td>202</td>
<td>Spent boosters, spent manouevring stages, shrouds and other non-functional objects</td>
<td></td>
</tr>
<tr>
<td>2009-045A STS-128</td>
<td>28 August 2009</td>
<td>–</td>
<td>88.4</td>
<td>51.6</td>
<td>238</td>
<td>156</td>
<td>Reusable space transportation systems</td>
<td></td>
</tr>
</tbody>
</table>

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 2400Z on 31 August 2009:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2400Z on 31 August 2009:

None.

The following object identified in a previous report was no longer in orbit as at 2400Z on 31 August 2009:

1965-072F

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 September 2009**

The following report supplements the registration data on United States launches as at 30 September 2009. All launches were made from the territory of the United States unless otherwise specified.

<table>
<thead>
<tr>
<th>International designation</th>
<th>Name of space object</th>
<th>Date of launch</th>
<th>Location of launch</th>
<th>Nodal period (min)</th>
<th>Inclination (degrees)</th>
<th>Apogee (km)</th>
<th>Perigee (km)</th>
<th>General function of space object</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-047A</td>
<td>USA 207</td>
<td>8 September 2009</td>
<td>–</td>
<td>774.2</td>
<td>23.0</td>
<td>35 797</td>
<td>7 308</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-047B</td>
<td>Atlas 5 Centaur R/B</td>
<td>8 September 2009</td>
<td>–</td>
<td>774.2</td>
<td>23.0</td>
<td>35 797</td>
<td>7 308</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-052A</td>
<td>STSS Demo 1 (USA 208)</td>
<td>25 September 2009</td>
<td>–</td>
<td>112.6</td>
<td>58.0</td>
<td>1 350</td>
<td>1 348</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-052B</td>
<td>STSS Demo 2 (USA 209)</td>
<td>25 September 2009</td>
<td>–</td>
<td>112.6</td>
<td>58.0</td>
<td>1 350</td>
<td>1 348</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-052C</td>
<td>Delta 2 R/B</td>
<td>25 September 2009</td>
<td>–</td>
<td>112.6</td>
<td>58.0</td>
<td>1 350</td>
<td>1 348</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
</tbody>
</table>

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 2400Z on 30 September 2009:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2400Z on 30 September 2009:

None.

The following objects identified in a previous report were no longer in orbit as at 2400Z on 30 September 2009:

1997-051DF, 2007-043C, 2009-045A

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.

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Annex IV

Registration data on space launches by the United States of America for October 2009*

The following report supplements the registration data on United States launches as at 31 October 2009. All launches were made from the territory of the United States unless otherwise specified.

<table>
<thead>
<tr>
<th>International designation</th>
<th>Name of space object</th>
<th>Date of launch</th>
<th>Location of launch</th>
<th>Nodal period (min)</th>
<th>Inclination (degrees)</th>
<th>Apogee (km)</th>
<th>Perigee (km)</th>
<th>General function of space object</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-055A</td>
<td>WorldView 2</td>
<td>8 October 2009</td>
<td>–</td>
<td>100.0</td>
<td>98.6</td>
<td>805</td>
<td>195</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-055B</td>
<td>Delta 2 R/B</td>
<td>8 October 2009</td>
<td>–</td>
<td>100.1</td>
<td>98.6</td>
<td>777</td>
<td>776</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-057A</td>
<td>DMSP 5D-3 F18 (USA 210)</td>
<td>18 October 2009</td>
<td>–</td>
<td>101.9</td>
<td>98.9</td>
<td>860</td>
<td>849</td>
<td>Spacecraft engaged in practical applications and uses of space technology such as weather or communications</td>
</tr>
<tr>
<td>2009-057B</td>
<td>Atlas 5 Centaur R/B</td>
<td>18 October 2009</td>
<td>–</td>
<td>102.8</td>
<td>98.8</td>
<td>857</td>
<td>850</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-057C</td>
<td>DMSP 5D-3 F18 debris</td>
<td>18 October 2009</td>
<td>–</td>
<td>101.9</td>
<td>98.9</td>
<td>858</td>
<td>854</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
<tr>
<td>2009-057D</td>
<td>DMSP 5D-3 F18 debris</td>
<td>18 October 2009</td>
<td>–</td>
<td>101.9</td>
<td>98.9</td>
<td>865</td>
<td>862</td>
<td>Spent boosters, spent manoeuvring stages, shrouds and other non-functional objects</td>
</tr>
</tbody>
</table>

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 2400Z on 31 October 2009:

None.

The following objects achieved orbit since the last report but were no longer in orbit as at 2400Z on 31 October 2009:

None.

The following objects identified in a previous report were no longer in orbit as at 2400Z on 31 October 2009:


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.

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