ROLE OF INTERNATIONAL SPACE LAW IN THE ZONE ABOVE

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Overview

1 Law and order in the contemporary space activities

2 Australian space cooperation: its potentials

3 Cooperation with Japan in space activities

4 For the future in the Zone above: case of Australia and Japan
1 Law and order in the contemporary space activities

(1) Forums to discuss international space law

- Office for Disarmament Affairs
- 1st Committee
- 2nd Committee
- 4th Committee
- General Assembly
- Conference on Disarmament (CD)
- COPUOS 87 members
- UNIDIR
- Disarmament Commission
- ITU
- Subsidiary Organ
- UN Office for Disarmament Affairs
- IAEA
## 2. UN 5 treaties on outer space

<table>
<thead>
<tr>
<th>Signature /entry into force</th>
<th>Name</th>
<th>Australia</th>
<th>Japan</th>
<th>Number of states parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>Rescue &amp; Return Agreement</td>
<td>1986 ratified</td>
<td>1983 acceded</td>
<td>96</td>
</tr>
<tr>
<td>1972</td>
<td>Liability Convention</td>
<td>1975 acceded</td>
<td>1983 acceded</td>
<td>95</td>
</tr>
<tr>
<td>1979 1984</td>
<td>Moon Agreement</td>
<td>1986 acceded</td>
<td>Not signed</td>
<td>18</td>
</tr>
</tbody>
</table>
(3) since the 1980s: non-legally binding rules (soft law)

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject-matter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>Direct Broadcasting</td>
</tr>
<tr>
<td>1986</td>
<td>Remote Sensing</td>
</tr>
<tr>
<td>1992</td>
<td>Nuclear Power Sources (NPS)</td>
</tr>
<tr>
<td>1996</td>
<td>Space Benefit</td>
</tr>
<tr>
<td>2004</td>
<td>Concept of the “Launching State”</td>
</tr>
<tr>
<td>2007</td>
<td>Enhancing the Practices on Registering Space Objects</td>
</tr>
<tr>
<td>2013</td>
<td>National Legislation</td>
</tr>
</tbody>
</table>

1 made in the legal subcommittee → UNGA Resolution

2 made in the Scientific and Technical subcommittee → UN endorsement

2007 Space Debris Mitigation Guidelines

2009 COPUOS/STSC & IAEA nuclear power sources safety framework

3 made in the LSC → UN endorsement

2000 Use of geostationary orbit addressing paper satellites, etc.
(4) Important rules of the UN treaties on outer space

1 Freedom of the Exploration and Use of outer space, taking note of the benefit and interests of all countries

2 Non-appropriation of outer space (non-colonialization)

3 Peaceful uses of the celestial bodies and non-aggressive use of outer void space (space arms control)

[* unique system on jurisdiction, responsibility and liability (launching States)]
2 Australian space cooperation: its potentials
(1) a model country of the rule-based space activities

i) A State party to all UN space treaties

ii) 8th country enacted national “space activities act” (SAA) in 1998 (Norway, Sweden, USA, UK, South Africa, Russia, Ukraine)

Currently in the process of amending its SAA to better address the present necessity for promoting space industry

- One of the small number of countries which have launching site(s) for orbiting objects in its territory geographical advantage + political advantage (stable democracy) + strong tie with the US and UK

- 1 July 2018 Australian Space Agency to be established
(2) Number of bilateral cooperative projects in the 20th century (©UNOOSA int’l agreements)

<table>
<thead>
<tr>
<th>Country / Int’l Organization</th>
<th>Number of the instruments (incl. the amendment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>18 Ground stations/scientific/RS</td>
</tr>
<tr>
<td>ESA (incl. ESRO/ELDO)</td>
<td>5 space vehicle tracking program (ground stations)/scientific/RS</td>
</tr>
<tr>
<td>West Germany</td>
<td>3 scientific/ launch from Woomera</td>
</tr>
<tr>
<td>France</td>
<td>1 high-altitude balloon tests</td>
</tr>
<tr>
<td>UK</td>
<td>1 re-entry of space object</td>
</tr>
<tr>
<td>Japan</td>
<td>1 provision of weather sat data</td>
</tr>
</tbody>
</table>
(3) Australian space cooperation treaties in the 21st century

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Agreement/Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>ESA</td>
<td>Space Vehicle Tracking</td>
</tr>
<tr>
<td>2012</td>
<td>USA</td>
<td>Space Vehicle Tracking &amp; Communication Facilities</td>
</tr>
<tr>
<td>2007</td>
<td>UK</td>
<td>Anglo-Australian Optical Telescope</td>
</tr>
<tr>
<td>2004</td>
<td>Russia</td>
<td>Peaceful exploration and use of space</td>
</tr>
</tbody>
</table>

More recent cooperative frameworks, and consultations for a new cooperation:
- 2012 India (ISRO) MOU for space science
- 2018 France (CNES) letter of intent (which may develop into a framework agreement)

- 2016 Ukraine Space State Agency to establish a spaceport

Bilateral cooperation treaties (legally binding) (A/AC.105/C.2/102 11 Feb.2013, etc.)
### 3 Cooperation with Japan (1) 3 examples

<table>
<thead>
<tr>
<th>Country</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td><strong>Double first for the both countries</strong>&lt;br&gt;2002 The first Australian national satellite “FedSat” was launched by Japan’s H-IIA (with Japan’s ADEOS-II satellite). That was the first foreign satellite launch for a Japanese rocket.</td>
</tr>
<tr>
<td></td>
<td><strong>Australia hosted Asia-Pacific Region Space Agency Forum (APRSAF) twice</strong>&lt;br&gt;11th APRSAF 3-5 Nov. 2004 Canberra&lt;br&gt;17th APRSAF 23-26 Nov. 2010 Melbourne</td>
</tr>
<tr>
<td></td>
<td><strong>Hayabusa (MUSES-C)</strong>&lt;br&gt;(asteroid exploration)&lt;br&gt;2003 launched from Uchinoura, Japan&lt;br&gt;2010 returned to Woomera, in Australia&lt;br&gt;<em>(1998 Space Activities Act)</em></td>
</tr>
</tbody>
</table>
(2) Common elements in space: Australia and Japan

1. One of the 18 original members of the UN Committee on the Peaceful Uses of Outer Space (COPUOS) established in 1958.

2. Similar values in each national space policy, etc.
   - Australia: 2013 Satellite Utilisation Policy;
     2018 Review of Australia’s Space Industry Capability
   - Japan: 2015 3rd Basic Plan on Space Policy;
     2017 Space Industry Vision2030

3. Strong tie with the U.S. e.g., Space Situational Awareness (SSA)
   - Australia and Japan: 2013 MOU with the U.S. on SSA cooperation

- Increased security through space
- International rules
- Promotion of space industry
4 For the future in the Zone above: what both countries can do?

1 Space for safety and security

(1) To identify what is navigating where and for what? (SSA)
   Strengthening SSA cooperation with the US and also other countries in the region

(2) To monitor what is navigating where and for what in the ocean
   Maritime Domain Awareness (MDA) cooperation much needed

(3) possibility of hosted payload for, e.g., remote sensing satellites
   resilient space; economical and efficient space

Advantage:
- Little barriers for export control regulations (both belong to all export control regimes) and security alliance concerns
- SSA already on the right track (MDA needs more active engagement)
(cont’d)

2 Space for prosperity and well-being (and of course also safety)
Finding new business using:
- quasi-zenith satellites constellation (QZSS) which covers Australia;
- Various application satellites;
- Rocket sharing for stable launch business?

3 Extending cooperation (and healthy competition) using various cooperative mechanisms to make a real open and free global community

various mechanisms: bilateral; trilateral; regional; inter-regional; UN
Advantage: both countries already belong to various regional and international frameworks