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The Zone above: the Indo-
Pacific Era in Space

ROLE OF INTERNATIONAL SPACE LAW IN THE ZONE ABOVE

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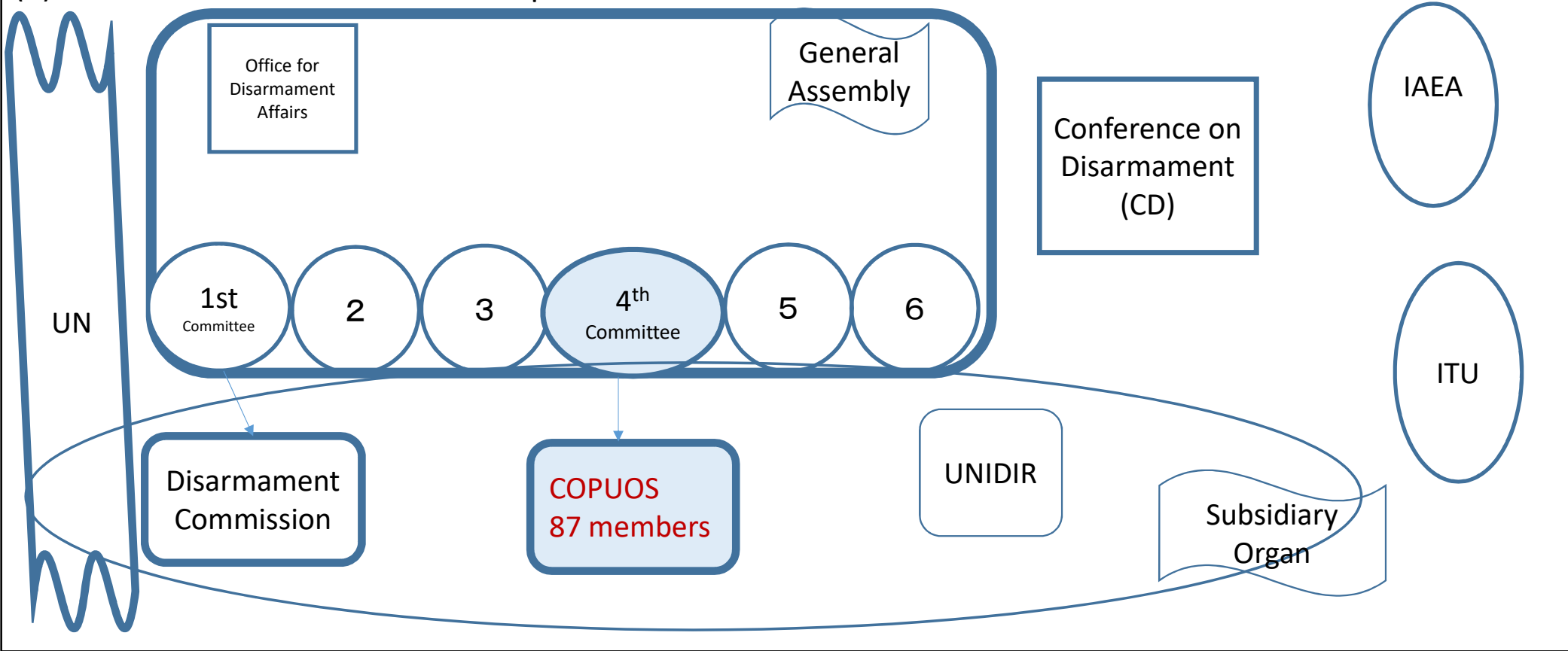
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Overview

- 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



(2) UN 5 treaties on outer space A/AC.105/C.2/2018/CRP.3 (9 April 2018)

Signature /entry into force	Name	Australia	Japan	Number of states parties
1967	Outer Space Treaty	1967 ratified	1967 ratified	107
1968	Rescue & Return Agreement	1986 ratified	1983 acceded	96
1972	Liability Convention	1975 acceded	1983 acceded	95
1975 1976	Registration Convention	1986 acceded	1983 acceded	67
1979 1984	Moon Agreement	1986 acceded	Not signed	18

(3) since the 1980s: non-legally binding rules (soft law)

1 made in the legal subcommittee →UNGA Resolution

Subject-matter

1982 Direct Broadcasting

1986 Remote Sensing

1992 Nuclear Power Sources (NPS)

1996 Space Benefit

2004 Concept of the “Launching State”

2007 Enhancing the Practices on
Registering Space Objects

2013 National Legislation

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

Difficulty in coordinating between freedom and common interests

International
cooperation
1996 Space
Benefit
Declaration

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)

Country / Int'l Organization	Number of the instruments (incl. the amendment)
USA	18 Ground stations/scientific/RS
ESA (incl. ESRO/ELDO)	5 space vehicle tracking program (ground stations)/scientific/RS
West Germany	3 scientific/ launch from Woomera
France	1 high-altitude balloon tests
UK	1 re-entry of space object
Japan	1 provision of weather sat data

(3) Australian space cooperation treaties in the 21st century

bilateral cooperation treaties (legally binding) (A/AC.105/C.2/102 11 Feb.2013, etc.)

- 2012 **ESA** Space Vehicle Tracking
- 2012 **USA** Space Vehicle Tracking & Communication Facilities
- 2007 **UK** Anglo-Australian Optical Telescope
- 2004 **Russia** peaceful exploration and use of space

More recent cooperative frameworks, and consultations for a new cooperation

2012 India (ISRO) MOU space science

2018 France (CNES) letter of intent (which may develop into a framework agreement)

discussed since 2016 Ukraine Space State Agency to establish a spaceport

3 Cooperation with Japan (1) 3 examples

Double first for the both countries

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.

Australia hosted Asia-Pacific Region Space Agency Forum (APRSAF) twice

11th APRSAF 3-5 Nov.

2004 Canberra

17th APRSAF 23-26 Nov.

2010 Melbourne

Hayabusa (MUSES-C) (asteroid exploration)

2003 launched from Uchinoura, Japan



2010 returned to Woomera, in Australia

(1998 Space Activities Act)

(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