PRACTICE OF INTERNATIONAL ORGANISATIONS, E.G. THE EUROPEAN SPACE AGENCY

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REINFORCING THE REGISTRATION CONVENTION
On the occasion of the 42nd Session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space
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No scoop is to be revealed here. Firstly I would just like to underline the strong interest continuously brought up by ESA Member States to the Registration of space objects; included in ESA are the efforts displayed by its predecessors, ESRO and ELDO, which were granted the status of observers of the COPUOS. These efforts led to reduce a lacuna in the Outer Space Treaty, the fact that only States were granted the possibility to become parties to this Treaty. To reduce this lacuna, a remedy was found by European States in order to make it possible for international (intergovernmental) organisations, conducting space activities (IGO) to "declare" their acceptance of rights and obligations enunciated in the said Agreement/Convention, subject to the fact that a majority of Member States of the said organisation already are parties to the Outer Space Treaty and to appropriate Agreement/Convention, and subject to the acceptance of the above mentioned declaration of acceptance; this solution is a kind of "mini-status" vis-à-vis the other parties to the Convention, the Organisation being excluded from acquiring any rights attached to membership, like the right of amendment, of revision of the said convention. Nevertheless this procedure of declaration of acceptance constituted a progress towards the recognition of the role played by IGO. The European Space Agency (ESRO at the time) used this possibility for the Rescue Agreement, the Liability Convention and the Registration Convention; Eutelsat for the Liability Convention (but what is the situation now, Eutelsat having been privatised?); Eumetsat for the Registration Convention; neither Intelsat nor Inmarsat, etc. considered it appropriate to make such a declaration.

I. A specific legal scheme

The Declaration of Acceptance: ESA focuses its attention on the latter, either in studying and providing advice to its Member States, e.g. when the question of a possible revision of the Registration Convention came up, or by contributing to some working papers on, for instance, improving the Registration Convention. Here I am mentioning the initiative taken in 1988 by ESA Member States, members of the COPUOS and European States having concluded co-operation agreements with ESA (in total: 20 States out of the 61 Member States of the COPUOS at the time; doc A/AC.105/C.2/L.211/rev.1, March 30th 1998). This initiative, supported by a large majority of Member States, led to the study of the concept of "launching state", as a single-issue item. Chapter

III of this document held some proposals for improving the vitality of the Registration Convention, its adequacy. Some reflections are still valid, in my opinion, at least as "directions".

As you are aware of, ESA was the first IGO to deposit a declaration of acceptance (previously the ESRO information were transmitted through the French Government to the United Nations Secretary General on the basis of UNGA Resolution 1721); but accepting the Registration Convention raised some preliminary questions and required a clear understanding and agreement among the ESA Member States: obviously, the political, legal, ethical interest(s) of the Organisation itself to become a "quasi" party to the Convention, in addition to its Member States, already parties to the Registration Convention. Here the answer is contained in the ESA Convention: its mission (research and development in all fields of space activities, science, technology, applications, transportation systems), international co-operation (with non-member states, international organisations etc.) and of course its role in facilitating the coordination of national views; this mission does not exclude the expression of personal views by Member States. Programmes are decided and executed under the ESA Convention, as are the Agreements concluded with Partners (subject to the [unanimous] approval by the Council). However ESA, an organisation with specified and limited competences, cannot be assimilated to a state. For instance, reading the article VI of the Outer Space Treaty, ESA cannot exercise jurisdiction and control as a State can. Therefore the first interrogation we had was to correctly understand the legal implications of a declaration of acceptance. In relation with this, the ESA Legal Adviser raised some questions to the UNO legal adviser, for instance, on the possibility of keeping a "national" register. Having taken into account the United Nations Legal Adviser's answers, ESA set up its own registry, containing the elements enunciated in article IV of the Registration Convention and notified the information to the United Nations Secretary General, this information being published in OOSA's appropriate documents.

II. Implementation

ESA is entitled to maintain the register as provided for in the Registration Convention; therefore ESA is also, by construction, a launching State. Only launching States have the right to become registration States as well, for a particular space object.

The space object: Which space object? For a space object in the realisation, development, etc. and launching of which the "registration State" played an active role. Each space object registered by ESA is an item developed, built and financed by ESA, according to its mission, to its Convention. What happens in case of an international co-operation programme? Who is entitled to assert what a space object is? We have encountered this type of question in the first important manned space flight programme: the Spacelab Programme covered by an International Agreement (IGA) and a MoU between NASA and ESA part of the post Apollo shuttle programme. ESA's point of view was that the Spacelab was a space object to be registered by ESA (ESA having developed, built and funded the project and having been recognised as its "owner"). It was understood that the

Spacelab would be transferred to NASA. NASA took the opposite point of view, arguing that the Spacelab was not an autonomous object, receiving the resources needed from the shuttle; it was simply a payload in the shuttle cargo bay. NASA's opinion prevailed: the Spacelab was not registered and fell, like any other piece of the shuttle, under United States jurisdiction and control. When negotiating the International Space Station Agreement (1985-1988), we re-discussed the case in accordance with the status of the European contribution (having received strong guidance from the ESA Council at ministerial level – Rome and the Hague): the Columbus Laboratory attached to the Station. The discussion was intense on Article V of the IGA (Registration, Jurisdiction and Control). The 1988 solution also appears in the 1998 version. A space object is a contribution of a Partner State as listed in the Annex of the IGA. The Columbus Laboratory, this time, got the status of a space object, under jurisdiction and control of the European Partner, who entrusted ESA to register it (let's mention that the Canadian robotic arm also got the status of space object).

In conclusion on this point, all "space objects" developed and built under ESA authority and funding are entered in the ESA register, including space objects provided by ESA as part of a co-operation programme. Mentions of this policy are to be found in co-operation Agreements concluded by ESA - I have already mentioned the Intergovernmental Space Station Agreement) – with non-member States or with International Organisations, for instance:

- The Arrangement between ESA and the Russian Space Agency concerning their co-operation in the INTEGRAL Programme (signed in 1997); Article 13 "Registration of the Spacecraft" states that "ESA shall register the Integral Spacecraft as a space object in accordance with the Registration Convention on registration of objects launched into outer space of 14 January 1975".

- The Memorandum of Understanding between ESA and NASDA concerning the launch of Artemis by the H-IIA launch vehicle and its utilisation signed in April 1997. You are certainly aware that placing Artemis in the targeted orbit was a difficult task and that it was only very recently (end of January) that ESA engineers were able to put Artemis on its foreseen geostationary orbit (therefore we now have to register the spacecraft).

"ESA shall register Artemis as a space object in accordance with the Convention on Registration of objects launched into outer space".

What about the Ariane Launcher? On the Ariane launcher Registration (Convention ESA/Arianespace): the Ariane launcher has been developed and qualified under an ESA optional programme. Thereafter its commercial building and exploitation has been entrusted to the private French firm Arianespace. ESA has been entrusted with the registration of the upper stage of the launcher when the launch was an element of the Ariane development programme. In the case of commercial launching conducted by Arianespace, the French Ministry of Foreign Affairs is responsible for the registration of the commercial launcher operated by Arianespace from the Guyana Space Centre.
When ESA is the provider of the satellite and procure the launch, e.g. Agreements concluded between ESA and EUMETSAT concerning the

Meteosat second generation satellites (October 1996) and co-operation on the Metop satellites series (December 1999) state that:

MSG article 11: "Eumetsat shall notify the Secretary General of the United Nations of the Launch of the Satellites in accordance with the Convention on Registration of objects launched into outer space..."

Metop article 19: Registration: Eumetsat shall notify the Secretary General of the United Nations of the Launch of the Satellites in accordance with the Convention on the registration of space object launched in outer space..."

I can also refer to the contract concluded between ESA and the Eurockot company, which states: "the contractor (Eurockot) shall undertake to register the launch vehicle with the government of Russia as launching state... ESA shall be responsible to ensure the satellite is properly registered in accordance with the Convention on Registration of space objects launched in outer space..."

An interesting situation will now occur in Kourou with the launching of satellites via the Russian launcher Soyuz, from French Guyana, needing a separate launch pad but using ESA and CNES facilities. Launching Soyuz from Kourou will request several Agreements, including one between France and Russia and one between ESA and Rosaviacosmos etc.. The French Republic should arrange for the registration of the Soyuz launcher and the customer for the Registration of the satellite (these Agreements have not been yet concluded nor signed).

III. Directions

As Dr. Perek said "it seems the Registration Convention mostly provides obsolete orbital elements". The 1998 European initiative already indicated some directions to study. The Registration Convention invites the Parties to consider the updating of data and to add new information as appropriate (therefore there is no need to amend it).

ESA has updated data on the basis of events related to the registered space objects; e.g., its end of life, by putting the satellite on a "cemetery orbit", and so "liberating" orbital positions and frequencies on orbit (OTS, GEOS, Meteosat, and lastly ECS IV). This policy will, of course, continue.

More important are the additional information, provided on a voluntary basis. An internal proposal has been examined and endorsed but is not yet in force (it is based on practice and various recommendations and links like the COSPAR or ITU etc.), for instance:

The name of the space object;

- The name of the launching authority to indicate as appropriate in case of a co-operation programme, the name of the other launching state(s);

- Designator, to add the COSPAR numbering;

- The type of space object: sounding-rocket, launcher, platform etc.;

- The date of launch and the location of the launch site;
- All ground facilities used for the launching as well as for the telemetry, the control and the tracking of the launcher and the satellite;

- The total mass;

- If any, astronauts on board;

- If any, use of NPS (Principle 3 of the 1992 NPS Principles);

- The frequency plan: all types of frequencies used; information available from ITU;

- Expected date for the end of the mission and expected zone of re-entry;

- Measures taken for space debris mitigation;

- If any, transfer of ownership, user(s) of the space object in orbit.

The data should be, in principle, entered into the register within a delay of 10 days after the launch, and notified to the United Nations Secretary General within a fortnight of each launch.

ESA is hoping it will contribute to worldwide, needed effort, by granting more transparency and safety to the international community, thus leading to an increase of the number of Parties to the Registration Convention.

Annexes

I. Texts

- European Space Agency; Declaration of Acceptance of Rights and Obligations Provided in the UNO Registration Convention, January 1979. [Eumetsat has also adopted such a declaration of acceptance]

- Registration Convention; Articles II, III and IV

- Convention ESA/Arianespace; [Article 21]

II. Elements for a Bibliography

- G. Lafferranderie; L'application par l'Agence Spatiale Européenne de la Convention sur l'immatriculation des objets lancés dans l'espace extra-atmosphérique. Annales de droit aérien et spatiales, McGill, vol. XI, 1986, pp.229-236.

- Dr. Kaï-Uwe Schrogl (DLR) and Ch. Davis (OOSA); A New Look at the "Launching State"; IISL (Houston) 2002.

- L. Perek (Czech Republic); 1976 Registration Convention; Proceedings of the 1998 IISL/ECSL Symposium published in "Proceedings of the 41st Colloquium on the Law of Outer Space".

- Dr. Marietta Benkö and Dr. Kaï Uwe Schrogl; The 1998 European Initiative in the UNCOPUOS Legal Subcommittee to Improve the Registration Convention; IISL-98-IISL.1.07

- G. P. Sloup, A Guide for Space Lawyers to Understanding the NASA Space Shuttle and the ESA Spacelab, ZLW 196, 1977, p.204-205

- Dr. Von der Dunk; Possible Improvements to Space Object Registration and Other Possible Legal Tools; International Colloquium - Europe and Space Debris; Toulouse (France); 27-28 November 2002 (French Academy of Air and Space ANAE)

- M.G. Bourely, Legal Issues Relating to Flights of Spacelab, JSP 1980

IGA 1998

Article 5
Registration, Jurisdiction and Control

1. In accordance with Article II of the Registration Convention, each Partner shall register as space objects the flight elements listed in the Annex, which provides that the European Partner having delegated this responsibility to ESA acts in its name and on its behalf.
2. Pursuant to Article VIII of the Outer Space Treaty and Article II of the Registration Convention, each Partner shall retain jurisdiction and control over the elements it registers in accordance with paragraph 1 above and over personnel in or on the Space Station who are its nationals. The exercise of such jurisdiction and control shall be the subject to any relevant provisions of this Agreement, the MoUs and implementing arrangements, including relevant procedural mechanisms established therein.

Article 6
Ownership of Elements and Equipments

1.
2. The European Partner shall entrust ESA, acting in its name and on its behalf, with ownerships over the elements it provides, as well as over any other equipment developed and funded under ESA programmes as a contribution to the Space Station, its operation or utilisation.
3. -
4. ... Any transfer of ownership of any element listed in the Annex shall require prior notification of the other Partners.
5. .
6. The ownership or registration of elements or the ownership of elements shall in no way be deemed to be an indication of ownership of material or data resulting from the conduct of activities in or on the Space Station.

Columbus Development Programme Implementing Rules
(Approved by Council on 29 June 1989)

Article 7 §1
"It shall also register, acting on behalf of the Participating States, all Columbus flight elements, including those identified in the Annex to the IGA, and shall notify the Secretary General of the United Nations thereof."
[Based on the September 1988 IGA, Article 5.]

LIST OF SPACE OBJECTS ST/SG REGISTERED BY ESA

Document Symbol:	ST/SG/SER.E/031
Remarks:	Registration information for Ariane 3rd stage and technological capsule (CAT)

Document Symbol:	ST/SG/SER.E/051
Remarks:	Registration information for METEOSAT-2 (1981-057A), Ariane 3rd stage (1981-057B) and technological capsule (CAT) (1981-57C)

Document Symbol:	ST/SG/SER.E/061
Remarks:	Registration information for MARECS-A , Ariane L-04 3rd stage and Ariane L-04 technological capsule

Document Symbol:	ST/SG/SER.E/073
Remarks:	Update of geostationary position data of satellites METEOSAT-1, METEOSAT-2, GEOS-2, OTS-2 and MARECS-A

Document Symbol:	ST/SG/SER.E/085
Remarks:	Registration information for EXOSAT

Document Symbol:	ST/SG/SER.E/093
Remarks:	Registration information for Ariane 3rd stage

Document Symbol:	ST/SG/SER.E/095
Remarks:	Update of geostationary position data of satellites METEOSAT-1, METEOSAT-2, GEOS-2, OTS-2, MARECS-A and ECS

Document Symbol:	ST/SG/SER.E/100
Remarks:	Registration information for Ariane 3rd stage

Document Symbol:	ST/SG/SER.E/112
Remarks:	Registration information for EUTELSAT 2

Document Symbol:	ST/SG/SER.E/115
Remarks:	Registration information for MARECS PAC1

Document Symbol:	ST/SG/SER.E/132
Remarks:	Update of geostationary position data of satellites for May, June and July 1985

Document Symbol:	ST/SG/SER.E/187
Remarks:	Registration information for METEOSAT P2 & Ariane 3rd stage

Document Symbol:	ST/SG/SER.E/266
Remarks:	Registration information for EURECA, ERS-1, METEOSAT 4, METEOSAT 5, ULYSSES, HIPPARCOS, OLYMPUS-1, MARECS-A-EXP and MARECS-B-ATL

Document Symbol:	ST/SG/SER.E/285
Remarks:	Registration information for ERS-2

Document Symbol:	ST/SG/SER.E/303
Remarks:	Registration information for ISO and SOHO
Document Symbol:	ST/SG/SER.E/375
Remarks:	Registration information for XMM and Cluster satellites