

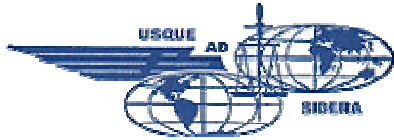
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EUROPEAN AND NATIONAL LEGISLATION RELATED TO SPACE

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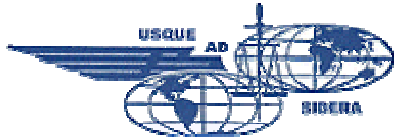


I. EUROPEAN UNION

1. International Code of Conduct for Outer Space Activities
2. European Code of Conduct for Space Debris Mitigation
3. European Union Need Recommendations about NEO's?

II. NATIONAL SPACE LEGISLATIONS

1. Ratification of United Nations Outer Space Treaties
2. National Space Laws
3. Suborbital Flights.



I.1. International Code of Conduct for Outer Space Activities

- *Council Decision (CFSP) 2015/203, of 9 February 2015, in support of the Union proposal for an International Code of Conduct for outer-space activities as a contribution to transparency and confidence-building measures in outer-space activities.*

Article 1 :

Building the widest possible **consensus** on the Draft Code of Conduct (CC) with a view to its **adoption for the International Community**.

Article 2 :

Reach the consensus supporting multilateral meetings for **negotiations on the Draft CC** as well as for its formal adoption.

Article 3 :

The High Representative of the Union for Foreign Affairs and Security Policy (**HR**) **shall be responsible** for the implementation of this Decision. HR will enter in **arrangements** with **UNODA** (Office for Disarmament Affairs) and with **UNIDIR** (Institute for Disarmament Research) to reach consensus on the CC Draft and its adoption at international level.

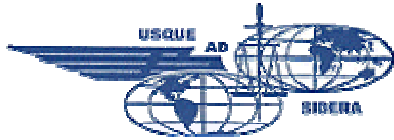
Article 4 :

Total estimated Budget shall be 1.475.955,15 EUR, and co-financed with UNODA and UNIDIR.

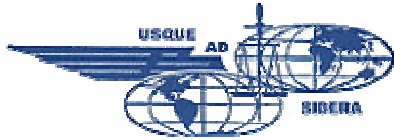
Article 5 :

HR shall report to the Council on the implementation of this Decision.

HR sends the Council the UNODA and UNIDIR reports, also for Council evaluation



- *Draft. International Code of Conduct for Outer Space activities. (Version 31 march 2014)*
 - This Code is no legally binding
 - Addresses outer space activities involving all space objects launched into Earth orbit or beyond.
 - Establishes transparency and confidence-building measures.
 - Compliance with International Law, including UN Charter and Space Law and Space Debris Mitigation Guidelines.
 - Notification of outer space activities (space objects pre-launch, collisions in orbit, malfunctioning, high risk re-entry...)
 - Information on outer space activities, on an annual basis : space strategies and policy, including safety, security and sustainability in outer space, prevent accidents and debris: space environmental conditions, natural phenomena that can pose an hazard to spacecrafts,etc
 - Peaceful uses of outer space. No proliferation
 - Consultation to achieve acceptable solutions to prevent or minimized potential risks.
 - Suscribing states decide to hold regular meetings to define, review and develop this code for implementation.
 - The Central point of contact will maintain an electronic database and communications system as the suscribing States
 - Suscribing States apply to any regional organisation which has competence over matters covered in this Code and any International intergovernmental organization which conducts space activities if a majority of the member States are Suscribing States in this code.



I.2. European Code Of Conduct for Space Debris Mitigation, 28 June 2004

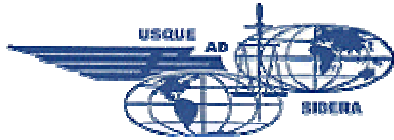
- Is **Voluntary** and should be applied to ESA, European Space National Agencies and their contractors.
- The CC contains provisions that **may be given binding effect** by means of legal instruments between the Parties.
- The CC is consistent with European Space Debris Policy.
- CC Purposes :
 - Measures for the design and operation of a space system that will **avoid or minimise the generation** of space debris; (ex. Removal to upper stages)
 - Measures to **protect** a space system from the hazard posed by space debris.

The CC does not cover the launch phase safety, specific rules are defined (Ex. Doctrine de sauvegarde CSG)

The elements of the CC are consistent with **IADC Debris Mitigation Guidelines** (29 Nov 2002), while provide greater detail and rationale as the UNCOPUOS Guidelines (6 March 2007).

I.3. European Union Needs recommendations about NEO's ?

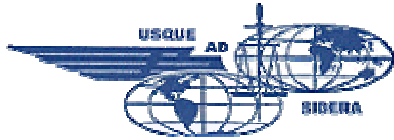
- There is a set of Recommendations issued by UNCOPUOS (2013), perhaps UE needs to establish some guides to be prepared from a potential hazardous object (asteroid or comet) impact on Earth : planning a mitigation campaign which will includes a disaster response.
- Is convenient a European Code of Conduct for NEO's Mitigation?



II. NATIONAL SPACE LEGISLATIONS

II.1. Ratification of United Nations Outer Space Treaties.

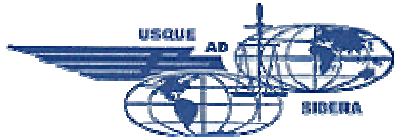
- Treaties ratified by States, are part of their respective national legislations.
- There is no sense in having a national space law if a State is not part in the main UN Outer Space Treaties : Outer Space Treaty(1967, Rescue Agreement (1968), Liability Convention (1975) and Registry Convention (1975).
- National Space laws develop this Treaties, and must be consistent with them.
- **National space laws also reflects some aspects of the UE Draft Code of conduct :**
 - Peaceful and sustainable use of outer space
 - Promote international cooperation
 - Safety and security
 - Prevent arms race in outer space
 - Transparency and confidence building measures
 - Earth and Space Environment
 - UN Space Treaties and Declarations
 - Maintain a National Registry of space Objects.



II. 2- National Space Laws related to outer space activities

- **European :**

- **Austria** Federal Law on the Authorisation of space Activities and the Establishment of National Space Registry, named "*Austria Outer space Act*", 6 december **2011**;
- **Belgium** *Loi relative aux activités de lancement, d'opération de vol ou de guidance d'objets spatiaux*, 17 septembre **2005**. & *Arrête Royal* (19 mars **2008**) portant exécution des caertaines dispositions de la Loi relative aux activités de lanzament, d'opération de vol ou de guidance d'objets spatiaux;
- **France** *Loi N° 2008-518 au 3 juin 2008 relative aux opérations spatiales* (Modifié par ordonnance n° 2010 du 21 janvier 2010, art. 17, et par la Loi n° 2011-94 du 25 janvier 2011, art.31);
- **Netherlands** Bill 13/06/**2006**, "*Space Activities Act*";
- **Norwegian** *Act on Launching Objects from Norwegian Territory into Outer Space*, 13 June, n° 38, **1969**
- **Russian Federation** *Law about Space Activity*, **1993**, amended. & Statute of Licensing Space Operations
- **Sweden** *Act on Space Activities*, **1982**
- **Ukraine** *Law of Ukraine on Space Activity*, 15 November **1996**
- **United Kingdom** *Outer Space Act*, 18 July **1986**

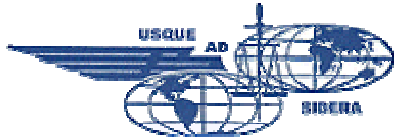


- **No European :**
- **Australia** amended *Space Activities Act, 1998*
- **Japan** *Fundamental Act of Outer Space, 2008*
- **Korea** *Space Exploitation Promotion Act, 2005*
- **Sudafrica** *Space Affairs Amendment Act, 1995*
- **United States of America :** *USC Code- CSLA (Commercial Space Launch Activities Act, 2012 ammended)*

Comparative law : the National Legislations about Space activities have evolved, including new aspects to take into account for States do not have yet their own national space legislation.

General Regulatory Framework :

1. **Use of terms and concepts.**
(Space activity, Space object, operator...)
2. **National Space Act Purposes**
Peaceful uses, international cooperation, industrial develoment, national security, earth & space environment...



3. Scope of Application (Personal and Territorial Jurisdiction)

- State territory, on board vessels or airplanes registered by the State, national's (natural & juridical persons)
- United Kingdom : Personal jurisdiction, only for nationals –natural & juridical.

4. Space activities require authorization or licence by the Minister, or Administrative Authority, or National Space Agency to the operator.

5. Licence : Operator's Conditions for obtaining a Licence or Authorisation :

- **An Insurance Covering damages** (Belgian law : direct mechanism to recourse against the operator's insurance company).

- . Austria : Minimum ammount per insurance claim 60.000.000 Eur)
- . France : Licence or other operator's financial guaratee

- Regulations and restrictions can be attached :

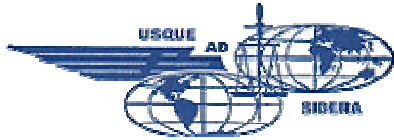
- . Netherlands : Safety persons and goods, protection environment outer space-mitigation space debris-, financial security, protection of public order, security of the State, fulfillment of the international obligation of State.

-Licence is **Issued for the duration of the Space activity**

- . Australia (no longer tan 20 years)

-**supervisión and control** :Operators of space activities are subject to **supervisión by the State Authority.**

- .Australia :The Minister may conduct an anual review.

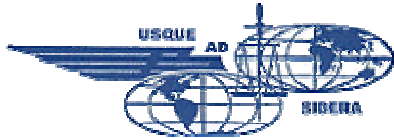


5. cont. Licence :

- a licence could be **refused**
- a Licence could be **modified**
- a licence could be **revoked**
- the licence **is not transferable** : the new space object operator needs the State Authority authorisation.
 - . UK : a licence may be transferred with the current consent of the Secretary of State.
 - . Australia : licence may be transferred to the new operator and continues to cover the same launch facility and the same kind of vehicle.

6. Registry of space objects

- The Minister (or Administrative Authority) or the State's National Space Agency maintains a national Registry for Space objects.
- The operator shall submit the necessary information about the space object. After the Launch the Authority shall communicate to the UN Secretary General the information contained in the National Registry.
 - . Korea : **Preliminary registration** to the Minister of Science and technology 180 days before the scheduled launch date. The Minister must keep and manage the Preliminary Registry and the **Formal registry** of space objects.
- **Argentina** (National Decree) and **Spain** (Royal Decree) related to the Creation of a National Registry for objects launched into outer space , consistent with the UN Registration Convention.



7. **Liability** and responsibility. Redress

- If the State is obliged to pay compensation under art. VII OST or the Liability Convention, the State is entitled to recover this sum (***Direct recourse***), in ***full or in part***, from the party whose space activity has caused the damage.

. Belgium & Netherlands : have the right to recourse or redress also against operator's insurance Company.

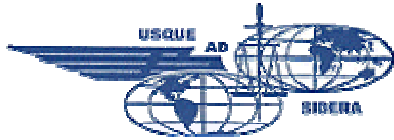
- ***Liability waivers*** between the persons connected with a space object launch or return, and of their employees, contractors and subcontractors to seek compensation for damages

8. Licence or Authorisation requisites **Infringements** :

- ***Civil & Administrative penalties***
- ***Criminal penalties (imprisonement)***

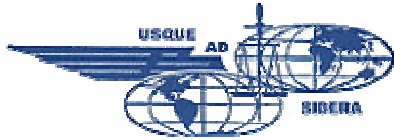
9. ***Developing New Items in national space legislations:***

- *Nuclear power sources on board a space object.*
- *Use of Communications, remote sensing and navigation space systems.*
- *Investigation of space accidents and incidents during the implementation of space activities. (Russia, Australia, Korea and Kazakhstan).*
- Legal status and social security measures of cosmonaut candidate (Kazakhstan)



II.3. Suborbital Flights

- No delimitation between air and Space law, except Australia (100 Km above sea level)
- Suborbital flights may be considered as air activities or space activities, depends on each country legislation but they reach outer space , so they can be considered as space activities.
- ***Only USA has developped legislation about suborbital flights***
 - ***Definitions*** : *space flight participant, space flights activities, space flight entity, suborbital trajectory*
 - ***Operator Authorization*** and/or permission
 - ***Experimental permission***
 - ***Safety & Security standards***
 - ***Registration as national aircraft*** (no in national space registry)
 - ***Participants training***
- ***Space flight Participants “Warning and acknowledgement”*** (Virginia 2007, New Mexico 2010, Florida 2011, California 2012, Colorado 2012) : The Operator must inform to the space flight participant about the risks involved, if the participant assume the risk of flying, the operator is exonerated from liability.



CONCLUSIONS

EUROPEAN COUNTRIES :

- I. Reach consensus needed to adopt the International Code of Conduct of Outer Space Activities
- II. Apply the International Code of Conduct in all Space Activities carried out by Europeans.
- III. European Union need Recommendations about Near Earth Objects Hazard.
- IV. States Ratification or accession to UN Space Traties (OST, Rescue, Liability and Registry)
- V. Need more national legislations about space activities, including the regulation on the following items:
 1. Authorisation and Licence Requirements and proceeds.
 2. State mechanism to recourse against the operator
 3. Minimization of generating space debris
 4. Investigation of Accidents and incidents ocurred during space activities.
 5. Suborbital flights