

French Implementation of Outer Space Treaty Art. VI under Space Operations Act June 3, 2008



CENTRE NATIONAL D'ÉTUDES SPATIALES

International and French context (1/2)

- **UN International treaties, involving important responsibilities for France especially:**
 - ◆ OST67 : Art VI Obligation for States Parties to authorize and to control national space activities carried out by non- governmental entities (private companies).
Art VIII State Jurisdiction and control on its registered Space Objects
 - ◆ Liability Convention 1972 : absolute liability for damage caused on the surface of the Earth or in the airspace...
 - ◆ Convention on registration of Objects launched into Outer Space: obligation to register the Space Object when France is the appropriate Launch State

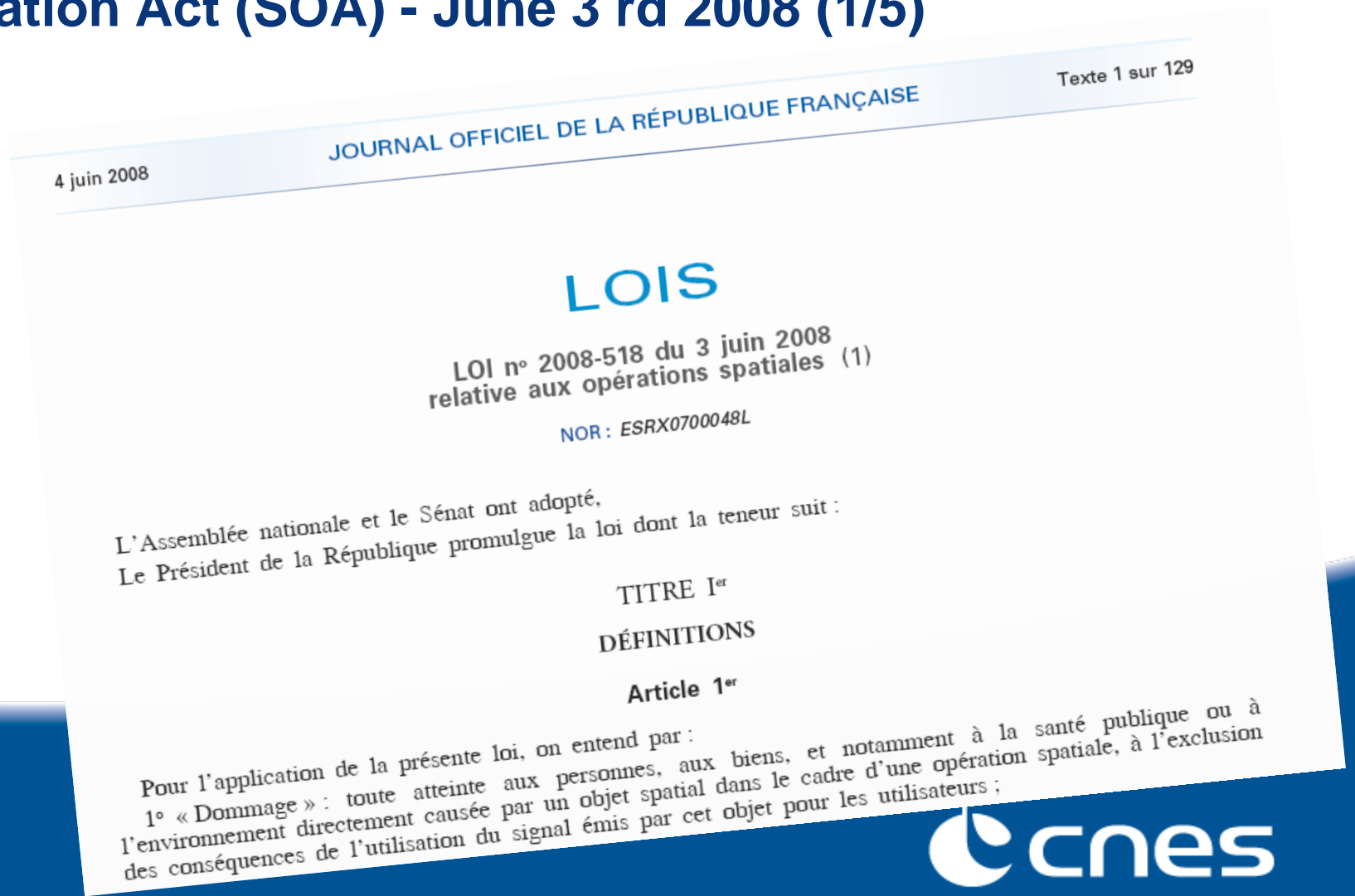
- France is potentially affected as a Launching State for launches from French Guiana (GSC: Guiana Space Center) carried out by Arianespace SA, a French registered company, or the launches of Eutelsat SA satellites carried out of the French territory or damages caused by such satellites during their command phase in orbit or at their ends of life.

International and French context (2/2)

■ Up to Space Operations Act, June 3rd 2008 entry into force, no specific French legislation governing space activities carried out by private entities

- ◆ Arianespace launches services have been governed by rules and regulations issued by French Government and CNES as a result of:
 - Specific international agreements passed with the European Space Agency (ESA) on CSG facilities: legal source of safety rules (“sauvegarde”) at the GCS launch base
 - Treaty (the Declaration) between the Ariane Exploitation Phase Participating States (including France), such States giving mandate to ESA to conclude a Convention (now “Arrangement”) with the private operator Arianespace to implement the “exploitation” phase (European launcher “development” phase being still governed by ESA rules) : legal source of the French Launch State special liability (ceiling of 60 M€ / Arianespace).
- ◆ Eutelsat SA, a former intergovernmental organization (same model as former Intelsat) privatized in 2001, then incorporated in France as a private company (SA), has been affected only by legal regime on telecommunications services and frequency spectrum (Electronic Communication Code).

The forthcoming authorization regime under Space Operation Act (SOA) - June 3rd 2008 (1/5)



The forthcoming authorization regime under Space Operation Act (SOA) - June 3 rd 2008 (2/5)

■ A regime based on the authorization and the control of space activities (OST art VI...)

◆ Scope (SOA art. 1.4)

Definition of a space operation : « any activity consisting in launching or attempting to launch an object in outer space, or of ensuring the command of a space object during its journey in outer space, including the Moon and other Celestial Bodies, as well as during its return on Earth ».

Definition of “Launching Phase” and “Phase of Command” in art. 1.4 and 1.5.

No specific reference to human flights or activities in outer Space or in the Moon and other Celestial Bodies

◆ Principle of prior authorization (or license) for the carrying out of space activities

- Authorizations to be given by an administrative authority (ministry in charge of outer space affairs), after technical instruction carried out by CNES (article 4)
- Exclusion of the operations carried out in the scope of a public mission carried out by CNES

The forthcoming authorization regime under Space Operation Act (SOA) - June 3 rd 2008 (3/5)

◆ Scope of the authorization regime

- **Definition of the « operator »** : any entity carrying out, under its responsibility and in an independent way, a space operation (i.e. Arianespace, Eutelsat)
- **Entities bound to the granting of an authorization (article 2)** :
 - “Any operator, no matter its nationality, that aims at launching a space object from the national territory or from facilities under the jurisdiction of France, or when such an object comes back to the national territory or facilities under the jurisdiction of France”. **For launch services - French territory jurisdiction criteria**
 - Any French operator that aims at launching a space object from the territory of a foreign State or from a place that is not under any State’s sovereignty, or when such an object comes back to the territory of a foreign State or to a place that is not under any State’s sovereignty. **For launch services operators - French nationality criteria**
 - Any physical person who has got the French nationality or any moral person whose headquarters are located in France, being an operator or not, that aims at launching a space object, or any French operator that commands such an object during its mission in outer space”. **Any French person (satellite operators or not) that procures a Launching of a space object (*)or intend to operate it under French Jurisdiction.**
- **By default, is not subjected to French SOA, for example, the launching of Non-French satellite by Arianespace at GCS, Arianespace being already authorized and controlled for such operation. A fortiori, the command phase of such object is out of French SOA scope.**

The forthcoming authorization regime under Space Operation Act (SOA) - June 3rd 2008 (4/5)

- ◆ **Transfer of the command of a space object bound to the granting of an authorization (article 3)**
 - Transfer to a third person of the command of a space object (such as a GEO satellite) whose launch or command has been authorized in compliance with the French legislation
 - Any French operator who aims at taking the command of a space object whose launch or command has not been authorized in application of the French legislation
- ◆ **Conditions required to obtain an authorization or a license (article 4)**
 - The applicant shall comply with moral, financial and professional requirements
 - Systems and procedures carried out by the applicant shall be compliant with the technical regulations. Such regulation to be issued by the Space Department, after proposition by CNES
 - But (art. 4.4) for authorization is solicited for an operation which is to be carried out **from the territory of a foreign State** or from means or facilities falling under the jurisdiction of a foreign State, the Space department may exempt the applicant from all or any part of the compliance checking to the technical regulations, when the national (operators contracts, special ceiling) and international commitments (N.U. treaties, bilateral agreements...) in that State as well as its legislation and internal practices provide sufficient guarantees regarding the safety of persons and property and the protection of public health and the environment, and liability matters.
 - Possibility of **Licenses** granted by Space department certifying for a determined time period that a space operator satisfies moral, financial and professional guarantees. These licenses may also attest the compliance of the systems and procedures referred with the technical regulations. Lastly, these licenses may be equivalent to authorizations for certain operations.

Examples: A general licence to grant to Arianespace to operate the Ariane 5 generic system from GSC, further authorization only being required to deal with specific mission customization purposes. A licence to be granted to Eutelsat for its geostationary satellite fleet command and for procuring launch services from main world launch services providers...

The forthcoming authorization regime under Space Operation Act (SOA) - June 3 rd 2008 (5/5)

■ Specific regulations for the exploitation of GSC's facilities

- ♦ The President of CNES is entrusted with a power of « administrative police » as relates to the exploitation and the facilities of CSG, in the name of the French Government for launch security and safety
- ♦ CNES' s Statutes is modified in this way (mission to be added in the new article L 331-6 of the “Research Code”)
- ♦ Content:
 - General mission to ensure the safety of persons, goods and environment on Earth or during a launch, including a specific competence of CNES President to issue specific regulations dealing with the CSG base
 - Mission of coordination, for the implementation by all companies and other entities located in CSG of any regulation aiming at ensuring the safety of the facilities and the activities conducted at CSG (overflowing risks prevention)
 - All these competences to be specified by specific decree and regulation, especially the conditions under which the President can delegate its powers, if deemed necessary

Preparation of the regulation corpus required for SOA implementation - Work in progress :

- **Specific decree + lower regulatory Act (« Arrêté ») defining the conditions of the authorization, the insurance and the registration regime**
 - ◆ Regulations based on agreed “best practice guidelines” among space community
- **Specific decree + lower regulatory Act (« Arrêté ») specifying the powers of the President of CNES at CSG and for the maintaining of the French Space Object Register**
- **SOA Full implementation expected mid 2010: publication of technical regulations + 1 year period.**

Thank you for your attention,

Any questions ?,

Next steps – questions

- SOA Full implementation expected mid 2010 (publication of technical regulation + 1 year period)