

Cyber space security & outer space security in the EU: a Spanish approach

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Plan

Introduction

Spain & outer space

Spain: cyber security & outer space security

Conclusion



Introduction

- Spain & outer space:
 - International law & international cooperation
 - A Space Legislation? A Space Agency?
- Spain: cyber security & outer space security:
 - First New Legislation and Strategy

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Spain: State Party (2018):

- Outer Space Treaty, 1967 (1969)
- Rescue Agreement, 1968 (2001)
- Liability Convention 1972 (1980)
- Registration Convention, 1974 (1979)
- Moon Agreement, 1979 (NO)
- Other (NTB)

Spain: State Member (2018):

- ESA (1975)
- UNCOPUOS (1980;1994)
- EU (1986)
- Other (ITSO, IMSO, EUTELSAT, EUMETSAT, ITU)

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ESA:

- Contribution to ESA Budget (optional programmes): 5-7%, 150M€ (5/6th position)
- 2015-2022: 1.368,5M€

Space Industry:

- 720 M€
- 3.384 high-qualified jobs (2014)

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- A National Space Legislation? -

- **ROYAL DECREE 278/1995**, 24th February 1995, establishing in the Kingdom of Spain of the **Registry** foreseen in the Convention adopted by the UNGA in 1974
- Telecommunications Act, 2003
- Other...

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- A National Space Legislation? -

Press news in 2014/2015:

- A group of experts is making a study since 2012 (?)
- 4 Ministries concerned (Defence, Treasury & Public Administration Services, Public Works, Economical Affairs)
- No official project is presented by the government (national elections 2015 & 2016)



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- A National Space Legislation? -

- Project 2014: Space Activities Act:
 - Legal framework for space activities, according to international law (OST 1967)
 - Protection for:
 - National Security & Defence
 - Security for air & space activities; orbital and suborbital flights

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- A National Space Agency? -

5 Ministries:

- Defence: INTA + DGAM
- Public Works: AENA + GALILEO
- Industry, Energy & Tourism: industry, SME, telecommunication and information
- Agriculture, Food and Environmental Affairs: AEMET (Meteosat)
- Economic Affairs & Competitiveness: CDTI (ESA)

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- A National Space Agency? -

INTA (1942): Public Research Organization specialized in aerospace research and technology development

– Functions:

- Acquisition, maintenance and continuous improvement of all those technologies that can be applied to the aerospace field
- Performing all types of tests to check, approve and certify materials, components equipment items, subsystems and systems that have an aerospace application
- Provide technical assessment and services to official bodies and agencies, and also to industrial or technological companies
- Act as a technological centre d for the Ministry of Defence

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- A National Space Agency? -

CDTI (1977): Public Business Entity,
answering to the Ministry of Economy
and Competitiveness

- Functions:

- Financial and economic-technical assessment of R&D projects implemented by companies
- Managing and fostering Spanish participation in international technological cooperation programmes
- Fostering international business technology transfer and support services for technological innovation
- Supporting the setting up and consolidating technological companies

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- A National Space Agency? -

- Mrs. B. Cristeto (Ministry of Industry, Energy & Tourism) announce at the end of 2014 the government's will to create a Spanish Space Agency
- Inter-Ministerial Commission: 4 Ministries concerned (Defence, Treasury & Public Administration Services, Public Works, Economical Affairs)
- Name (?); legal nature (?); mission (?); structure (?); resources (?); budget (?)...

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- A National Space Agency? -

TEDAE (Space industry Association):
positive reaction:

- Need of one voice, one strategy
- Governmental Agency
- “Adapted size” to Spain (not like as big as NASA or CNES)
- Preferred model: UK Space Agency
- Reorganisation of existing resources + exceptional addition of new resources (economical and financial crisis)
- Desirable deadline: 2016 (Spain chairs the ESA Ministerial Council) – 2019 (Spain will organise and host the ESA Ministerial Council)

Spain: cyber security & outer space security

- The National Security System:
 - Before 2015: Strategies:
 - National Security Strategy 2013
 - National Cyber Security Strategy 2013
 - National Maritime Security Strategy 2013
 - National Energy Security Strategy 2015
 - 2015:
 - National Act 36/2015, of 28 Sept.
 - National Security Strategy, RD 1008/2017, of 1 Dec.

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- National Act 2015:
 - Art. 10: fields of special interest for National Security:
 - Cybersecurity
 - Economic and financial security
 - Maritime security
 - Airspace and outer space security
 - Energy security
 - Health security
 - Environmental protection

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- National Security Strategy: A shared project, by all and for all (NSS 2017):
 - Security is one of the basic pillars of an open and democratic society such as Spain's, and an essential condition for its prosperity and progress
 - This Strategy is the benchmark framework for Spain's national security policy, a State policy based on a broad conception of security

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- NSS 2017:
 - It aims to contribute to security within the EU and internationally by promoting cooperation and compliance with international law
 - It identifies:
 - The threats that jeopardise or undermine national security
 - The challenges that, while not constituting threats as such, could generate vulnerabilities, provoke situations of instability, or propitiate the emergence of new threats

Spain: cyber security & outer space security

- NSS 2017:

- The main threats identified are:
 - Armed conflicts (land, air & naval military + cyberspace, & outer space capacities)
 - Terrorism
 - Organized crime
 - Proliferation of weapons of mass destruction
 - Espionage
 - Cyber threats
 - Threats to critical infrastructure.
- The main challenges to be addressed:
 - Economic instability
 - Energy-related vulnerability
 - Migration
 - Emergencies and disasters
 - Epidemics and pandemics
 - Climate change

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- NSS 2017:
 - These threats and challenges do not exist in isolation, but are interconnected
 - Their effects are not limited by borders, but frequently materialize in global common spaces “characterized by easy access and weak regulation can easily become theatres of confrontation”, such as:
 - Cyberspace (operations)
 - Maritime space (world trade)
 - Airspace and outer space

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- NSS 2017 identifies 5 general objectives guiding State action:
 - Develop the comprehensive crisis management model
 - Promote a culture of national security
 - Foster the proper use of global common spaces
 - Emphasize the security dimension in technological development
 - Strengthen Spain's international profile

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- NSS 2017 establishes 15 areas of action:
 - Some are traditional, such as:
 - National defence
 - Counterterrorism
 - Cybersecurity
 - Combating organized crime.
 - Others are new, responding to the new security panorama such as:
 - Protecting the environment, and particularly combating climate change
 - Security aspects of epidemics and pandemics
 - Airspace and outer space security

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- NSS 2017:
 - Establishes a number of initiatives to strengthen Spain's National Security System and improve the coordination and effectiveness of State action
 - Calls for further development of Spain's crisis management system:
 - Approving a National Aerospace Security Strategy
 - Creating a National Aerospace Security Council
 - Reviewing the existing sectoral Strategies in the areas of maritime security, energy and cybersecurity

Conclusion

- Two aims to achieve:
 - The Spanish Space Legislation should rule, at least, the main aspects about space activities, according to our international obligations
 - The Spanish Space Agency should play a role as the main responsible for strategic decisions in space (civil) programme and to provide a single voice for Spain space objectives and interests
- It will give Spain greater coherence & visibility (internal & external) as a Space Power
- A real will or an electoral objective?

Conclusion

- Spain: cyber security & outer space security:
 - First positive step: a New Legislation and Strategy, including outer space aspects
 - Need of further development (Council and Specific Strategy)

Any question?

Thank you!

