

National Center for Remote Sensing, Air and Space Law

Informational resources on the legal aspects of human activities using aerospace technologies

A Brief Survey of Remote Sensing Law Around the World

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Meeting International Responsibilities and Establishing National Legal
and Policy Frameworks”**

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UN Office for Outer Space Affairs

Government of Thailand

European Space Agency

hosted by

GISTDA

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Bangkok, Thailand





Background: Participants and License Types

- **Two kinds of licenses, at least**
 - Satellite operations
 - Data use
- **Space farers and emerging spacefarers**
 - Shifting dichotomy
 - Spacefarers/Developed Nations and Nonspacefarers/Developing Nations
 - Some developing nations are now spacefarers
 - Algeria, Brazil, Nigeria, e.g.



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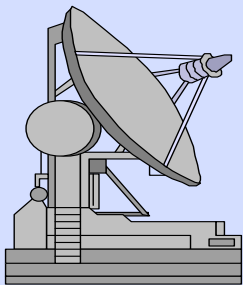




Different "Drivers": Space Segment, Ground Segment, Data Stream

Data Stream
Globalization Era Driver

Space Segment
Cold War Driver



Ground Segment

Partial Cold War Driver
Increased in Globalization Era



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Background: Kinds of Remote Sensing Law and Policy

- **General, global observations**
 - Disasters Charter, e.g.
- **Major remote sensing nations**
 - Space segment focused
 - Canada, Europe, France, India, Japan, Russian Federation, e.g.
- **Non-remote sensing nations**
 - Ground segment focused law
 - UK, e.g.



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The Big Picture: Land Data Distribution Policies

1972 - 1984

1984 - 1992

1992 - ~ 2004

Why

Foreign policy

Commercial policy

“Commercial” and
environmental policy



To

Allies and
nonaligned
nations

Commercial
market

National security and
environmental users

By

Government

Quasi-private

“Private” and
Government



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The Big Picture Distribution Policies and Rationales

~ 2004 - Present

Why

Survival of, and economic justification
for, space systems



To

As expanded a user base as possible
within growing national security
restrictions

By

By whomever can succeed, but increasing
tendency to be some form of government world-
wide.



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General Observations

- **Driving force of legislation is compliance with treaties and international obligations**
- **U.S. law is apparent standard**
 - Not to the "letter" but with due consideration
- **Hybrid public - private environment**
 - Law will not change this
- **Space segment vs. ground segment**
 - Satellite vs. data focus
 - U.S. vs. Europe, for example





Canada

- **Data Access Control Policy**
 - “transactional”
- **Operations license: public, private, hybrid**
- **Case-by-case review**
 - “shutter control”
 - tasking records
 - notify re: substantial foreign agreements and change in operational characteristics
 - need permission to transfer ownership, etc.
- **Very similar to U.S. law**



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Europe

- **Operations and data inextricably intertwined**
 - No private systems or licensing, per se
 - "commercial" means what is done, not who does it
 - Hybrid public - commercial systems
 - Government systems operate commercially
- **Data driven, but growing focus on space segment**
- **Multilateral agreements on satellite-by-satellite basis, e.g., Envisat, ERS-1, ERS-2**
- **Maastricht Treaty, agriculture and remote sensing**





Joint Principles Sentinel Data Policy

- **Anybody can access**
 - no difference between public, commercial, scientific, European or non-European users
- **Free data licenses**
- **Available free via a "generic" online access**
 - subject to user registration, accepting terms and conditions
- **Additional tailored access modes and conditions**





Europe

- **EC has proposed a Basic Legal Act**
 - i.e. a Regulation of European Parliament and the Council
 - on the basis of the Commission proposal for a European Earth Observation program (GMES) and its initial operations (2011 – 2013)
- **Basic Act to be adopted towards end of 2010**





Europe

- **Data Availability Directives:**
 - “INSPIRE Directive” (2007/2)
 - “PSI Directive” (2003/98)
 - “Aarhus Directive” (2003/4)
- **Directives on IPR and data protection:**
 - “ Copyright Directive” (2001/29)
 - “Database Directive” (96/9)
 - “Protection of Privacy Directive” (2002/58)





France

- **Data driven**
 - Focus: return on investment of public funds
 - Open civil regime
- ***SPOT* considered "privatized" not "commercialized"**
- **LOI no. 2008-518 du 3 juin 2008 relative aux opérations spatiales**
 - First English translation in 34 J. Space L., 2008
 - Phillipe Clerc, Head, Legal Services, CNES



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France

- **“primary space-based data” must be declared to the administrative authority**
 - Determination is made that data does not harm foreign policy or defense interests
 - Measures may be prescribed to safeguard these interests
 - 200,000€ fine for noncompliance
- **Provisions do not apply to**
 - Ministry of Defense activities
 - Satellite operations
 - Data reception



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Germany

- **Three kinds of licenses**
 - satellite operation
 - general data distribution
 - specific data transactions
- **Two-tiered “security data policy” analogous U.S.**
- **National security; commercial secondar**
 - Data distribution mechanism creates system in which operator (“Betreiber”), distributor (“Datenanbieter”) or operator/distributor (“Betreiber zugleich Datenanbieter”) will be licensed
 - Required to implement a “geomatrix” provided by government
 - includes check list to determine transaction sensitivity
 - potential liability if a distribution mistake is made
 - Penalties may include incarceration.





India

- **Remote Sensing Data Policy (RSDP), no law**
 - Comprehensive; space and ground segment driven
 - Acquisition and distribution from Indian and foreign satellites for civilian users in India
 - Data is a public good
 - No provisions for operating licenses
- **Allows sale of commercial 1-m imagery**
 - Controls distribution
 - Military sites removed from *Ikonos* images before domestic distribution
- **Same requirement for 5.8-meter imagery from India's own satellites**





Japan

Japan's Basic Space Law

- **Establish data use system in 1 -2 years**
 - Collect User Opinions
 - User and supplier coordination committee
 - More User-Friendly Satellite Data Use System
 - make the most of private sector current assets and know-how
 - Make Standardized Data Policy
 - balance limits on distributable resolution and price with publicly funded data as widely as possible
 - “analyzed information” policy



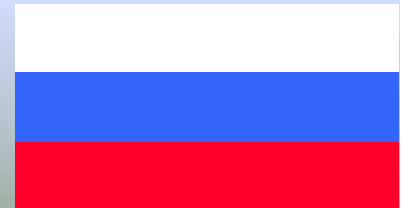


Russian Federation (CIS)

- **Operations**
 - Broad federal legislation
 - Licensing, certification, liability, safety, insurance and government control
 - License required, few specifics: insurance
 - Protects IP and commercial secrets of foreign entities operating under Federation's jurisdiction
 - RS includes environmental monitoring and meteorology
- **Sale of high resolution satellite imagery**
 - Conflicts between intelligence and commerce
 - Requests for lists of available images and image orders have been denied, delayed and canceled due to national secrecy
 - Particularly pre - 1992
- **Different rules over time, e.g., *SPIN*, *ALMAZ*, etc.**



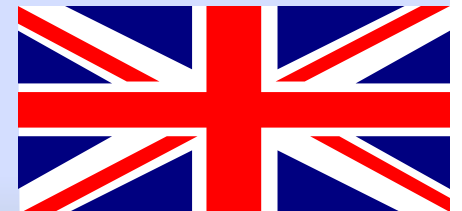
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United Kingdom

- **Ground-segment focus**
 - Space segment focus follows later
- **House of Lords**
 - “Main effort should be ground and user segment”
 - Specialize in radar
 - National data distribution network
 - Support postgraduate education in remote sensing and digital cartography
- **National legislation: Space Act**
 - No specific mention of remote sensing
 - Authorizes government to require licenses



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United States

- **1992 Land Remote Sensing Policy Act**
 - Public sector and environmental focus
 - Public and private distinction
 - Commerce Department licenses and regulates private systems
 - Company must disclose amount of government resources that went into launch or operation of the system
 - Fully government funded: all raw data available on nondiscriminatory basis
 - Entirely privately funded: data provided according to reasonable commercial terms and conditions. Data must be made available to a "sensed state"
 - Partial government support: some access to raw data on nondiscriminatory basis



• Case by case basis with provisions included in license

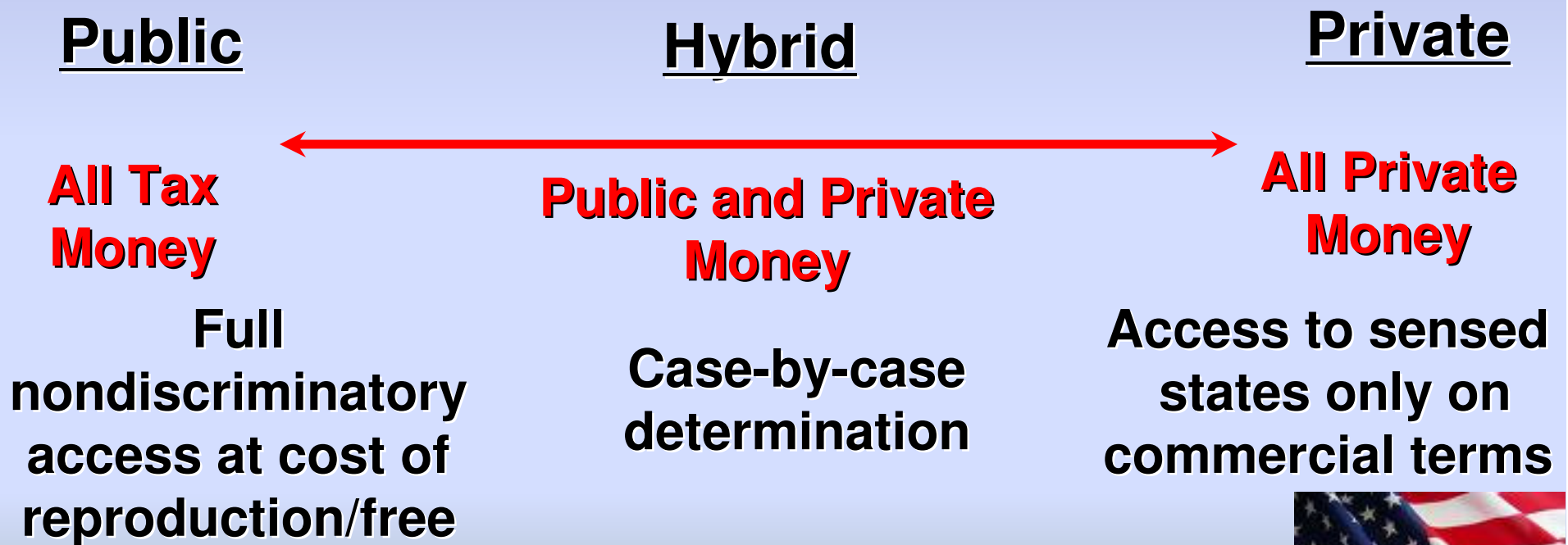
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U.S. Remote Sensing Data Policy

The Public-Private Spectrum for Data Access Policy



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Questions? Comments?

