The University of Mississippi School of Law

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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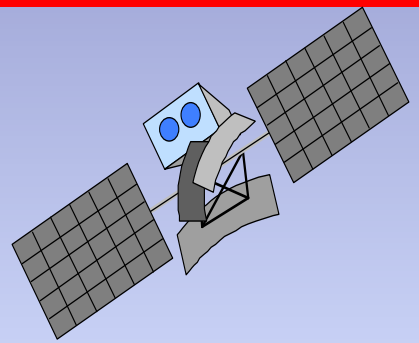
Tehran, Islamic Republic of Iran

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.

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

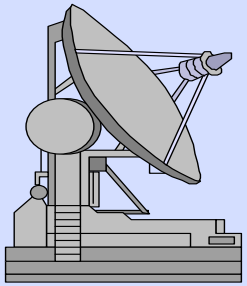


Data Stream

Globalization Era Driver

Space Segment

Cold War Driver



Ground Segment

Partial Cold War Driver
Increased in Globalization Era

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.

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

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.

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

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
- Maastrict Treaty, agriculture and remote sensing

Europe

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

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

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 Datanbieter") 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

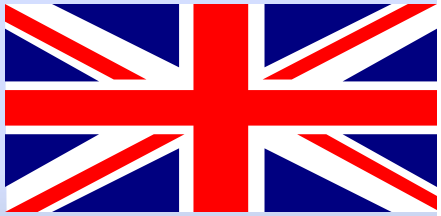
- Establish data use system in 1 -2 years
  - Collect User Opinions
    - User and supplier coordination committee
  - More User-Friendly Satellite Data Use System
    - make the most of private sector current assets and know-how
  - Make Standardized Data Policy
    - balance limits on distributable 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.**

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



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 o nondiscriminatory basis
      - Case by case basis with provisions included in licen

U.S. Remote Sensing Data Policy

The Public-Private Spectrum for Data Access Policy

Public	Hybrid	Private
All Tax Money	Public and Private Money	All Private Money
Full nondiscriminatory access at cost of reproduction/free	Case-by-case determination	Access to sensed states only on commercial terms

Questions?
Comments?