

Legal Aspects and Data Policy

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How Satellites Can Help to Save Lives

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Remote sensing of Earth from space

- by means of a **satellite** in **orbit** around Earth
- different instruments
- different suitable orbits
- different purposes: science, applications
- different actors: governmental, private, etc.
- beware of 'satellite myths' ...



Is RS allowed, and who can do it?

- international space law (= > UN)
 - freedom of **exploration & use** of space;
 - freedom of **scientific investigation**;
 - in accordance with **international law**.
- authorisation and continuous supervision of non-governmental space activities of entities
- national space laws (e.g. Austria)
- **States and private persons can launch and operate RS satellites.**

Legal boundaries?

- conflict with full & exclusive State sovereignty
- negotiations 1972-1986  “Principles relating to Remote Sensing of the Earth from Outer Space”
- no “rule of prior consent”
- but “sensed State” shall have access to data on a non-discriminatory basis and on reasonable cost terms

The domestic level

- attempts to regulate RS data sources, providers, collection or distribution
- “shutter control”
- **licensing systems** to influence:
 - who operates RS systems
 - how data are distributed
- *Land Remote Sensing Policy 1992 (US)*
- *Satellitendatensicherheitsgesetz (DE)*

Remote Sensing and you

- Where and how can you access RS data?
- Who owns the data?
- What are you permitted to do with such data?
- Can the data be used straightaway?
- Is RS a dual-use technology?

The world of data policies

“regulation through contractual arrangement”

- **purposes** and scope of data usage
- **accessibility and transferability** of data
- **ownership** of data and intellectual property rights to derived data (“added value data”)
- **warranties** for compliance with laws and regulations
- risk allocation and **liability** distribution
- suspension and termination of data **supply**

ESA

“To provide for and promote, for exclusively peaceful purposes, cooperation among European states in **space research** and **technology** and their **space applications**.”

Article 2 of ESA Convention



EO data policies: examples (1)

ESA EO
mission data

Third party
mission data

Campaigns
data

ESA EO mission data

Revised ESA EO Data Policy 2010

- **ESA data:** *ERS-1, ERS-2, Envisat, GOCE, SMOS, CryoSat, Swarm* and future *Earth Explorer* missions
- **full and open** access
- 2 classes of datasets (DS):
 - **free** DS available on-line upon registration
 - **restrained** DS, i.e. on demand products, on-demand data acquisition, some archived data – mostly free of charge and upon submission of a Project Proposal
- **TPM** data distributed under specific agreements with owners

EO data policies: examples (2)

Copernicus

Regulation (EU) 377/2014
of 03Apr14

- User-driven (“continuous, effective involvement of users”)
- Consistent with personal data protection
- data and information should be available **freely and openly**
- to promote their use and sharing

UN Remote Sensing Principles

Open & non-discriminatory access

EUMETSAT

Council Res.
EUM/C/98/Res.IV

- All Met Services of Member States receive data and products at no cost
- **“Essential data and products”** available **free and unrestricted**

WMO Res. 40 (Cg-XIII)

“necessary for ... protection of life and property and the well-being of all nations ...”

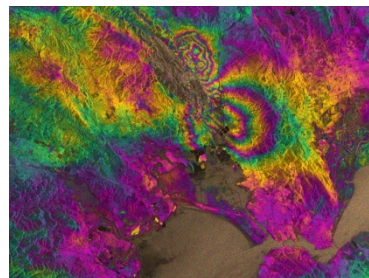
Key features

- trend towards **open & free** data (access)
- ... for data from public systems (e.g. Copernicus)
- system owners retain ownership of data but allows their use, including making products

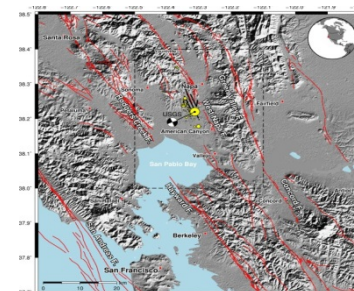
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**primary
data**



**processed
data**



**analysed
information**

From data to useful information

- “creation of the mind” necessary to transform data into products and services
- certain terms and conditions of data provider

- ESA data = from ESA satellites, owned by ESA
- ESA recognizes copyright which may arise as a result of the user’s own interpretation of ESA data
- In such a case, the user grants ESA, free of charge, a non-exclusive license to use such IPR
- User must indemnify ESA for liability resulting from data utilization for which ESA might be held responsible

Privacy & data protection

Protection against intrusion into an individual's **private** space

Protection against unauthorised use of **personal** information (-> restricts processing of PD)

- Univ. Declaration of HR
- ICCPR
- European Convention
 - **Art.8 ECHR**

Concluding observations

- Satellite images are a powerful tool
- Treaty implementation (e.g. UNFCCC, CITES)
- Humanitarian operations can be facilitated through the use of satellites
- Legal frame relatively wide and many legal aspects not sensor-specific

A satellite view of Earth from space, showing a curved horizon and a blue atmosphere. The surface is covered in white clouds and blue oceans. A blue rectangular box with a white corner cutout is overlaid on the image.

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