

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
Legal Implications of Evolving Remote Sensing Technologies (3)

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SHARPER EYES IN THE SKIES: A PROPOSAL FOR A CLEARER REGIME ON COMMERCIAL
REMOTE SENSING ACTIVITIES AT INTERNATIONAL AND NATIONAL LEVEL AND FURTHER
INTERNATIONAL COOPERATION**Abstract**

A growing number of private entities is developing, constructing, and operating new commercial constellations of advanced remote sensing satellites capable of imaging any location on Earth, day and night, regardless of cloud cover, with precision and high resolution previously limited to military satellites. Commercial satellites using SAR, for both private and government use, are progressively reliable, the data detailed, affordable, and almost instantaneous. These systems have the capacity to reveal sensitive information about the sensed State without prior consent, consultation, or notification, including natural resources, agriculture and forestry, mining activities, as well as maritime industry data such as dark vessel detection, and even border monitoring. The high resolution of new commercial remote sensing systems, often below the 0.5m mark, is creating serious security concerns for the sensed States regarding the misuse of data and possible consequential damage.

The existing international legal and regulatory framework is too limited to address emerging remote sensing technologies, particularly given the increasing commercialisation of EO systems. In addition to being insufficient in terms of data policy, the UN Remote Sensing Principles are vague in terms of responsibility and liability and limited in terms of scope. Furthermore, the Principles echo the OST with no details as to how to authorise and supervise activities undertaken by private entities. National legislation can create more certainty, but few states have adopted space laws for the control of such activities, establishing rules on national security by refusing or limiting access to information. The technologies and political conditions for remote sensing have changed since the Principles were formulated and the lack of clear rules on data policy, data accuracy, and authentication as well as the responsibility associated with the provision and use of data, brings uncertainty to commercial operators.

The drafting history of the Principles indicates serious unaddressed concerns about the use and access to data and natural security, coming especially from developing States. Therefore, this paper provides recommendations on how to address the legal and political issues and offers more pragmatic rules on a comprehensive regime on remote sensing activities based on current State practice, in a bottom-up approach. These recommendations include clearer rules on data downlink, the protection of privacy through transparency regarding the use of data, export control regulation, the protection of intellectual property, and a balanced authorisation regime through national regulation compatible with the main principles of international space law and efficient under commercial needs.