Heritage from Space for Peace: Remote Sensing for Heritage Protection

UNESCO Protection of Cultural Property in the Event of Armed Conflict
Online Expert Meeting: Introductory Session
Keynote Presentation
by
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Purpose and Outline of Presentation

• I intend to discuss some main legal aspects of the remote sensing technologies from space and airborne sensors, in peace time and in the Event of Armed Conflict;

• For this purpose, I will highlight legal rules concerning the collection through remote sensing technologies considering both space and aerial imagery;

• In addition, I will identify the main legal obstacles for remote sensing monitoring of cultural property;

• This presentation is aimed at providing input to the Committee’s effort in the drafting of Principles Relating to Remote Sensing Monitoring of Cultural Property.

• I will mainly concentrate international law aspects of regulation of space activities (i.e. international space law), which is my field of expertise.
Imagery from airborne sensors

- Airborne sensors provide much higher temporal resolution images and can be obtained about national cultural property, with much ease with national facilities.

- However, there are serious international legal barriers.

- Airborne sensors are subject to national sovereignty and restrictions of national laws of a country and cannot be used by any foreign State without its permission.

- According to Article 1 of the 1944 Convention on International Civil Aviation (Chicago Convention) “every State has a complete and exclusive sovereignty over the airspace above its territory.”

- Territory of a State is deemed to be the land areas and territorial waters adjacent thereto under the sovereignty, suzerainty, protection or mandate of such State.
Imagery from airborne sensors

- There are 194 States Parties to the Chicago Convention.

- In fact, this principle of national sovereignty has become a principle of customary international law. Thus, this applicable to all States, whether Parties to the Chicago Convention or not.

- No object aeroplane, drone, airship, satellite or any other object (with or without sensor) is entitled to passage rights, or any form of right of transit, whenever passing or transiting through foreign national airspace without the agreement of subjacent State.

- Thus, collection of imagery from airborne sensors flown in foreign national airspace is legally challenging proposition and consequently not very effective for monitoring cultural property both in peace time and in the Event of Armed Conflict.
Imagery from **spaceborne sensors**

- From international law perspective, the collection of imagery from spaceborne sensors is much easier.

- According to Article I of the 1967 Outer Space Treaty, outer space is free for exploration and use by States.

- There are 112 States Parties to the Treaty.

- In fact, this international law principle of freedom of exploration and use of outer space has acquired the status of customary international law.

- The said freedom can be exercised by all States (whether parties to the Outer Space Treaty or not), either individually, jointly, or within the framework of international organisations and by private companies whose activities have been authorised and continuously supervised by the appropriate State.

- The said freedom includes all space activities for scientific, military, civilian, commercial purposes.
Imagery from spaceborne sensors

- Thus, such freedom includes use of spaceborne sensors for monitoring of cultural property in peace time, in the event of extreme emergencies, in the course of hostilities, as well as in situation of occupation.

- Under current international law, imagery from spaceborne sensors can be collected without any kind of prior authorization or consent from the sensed State in whose territory cultural property is situated.

- However, there are three possible and minor barriers in the distribution of already collected such imagery.

**Article IV:** A Contracting Party in possession of initial data of the remote sensing of the Earth from outer space, with a better than 50 metres resolution on the terrain, relating to the territory of another Contracting Party, shall not disclose or make them available to anyone except with an explicit consent thereto of the Contracting Party to which the sensed territories belong, nor shall it use them or any other data in any way to the detriment of that Contracting Party.

“Remote sensing” means “observations and measurements of energy and polarization characteristics of self-radiation and reflected radiation of elements of the land, ocean and atmosphere of the Earth.”

This is not a major barrier in the distribution imagery from spaceborne sensors.

The Convention has been applicable to only 9 States; i.e. Bulgaria, Cuba, Czechoslovakia, Germany, Hungary, Mongolia, Poland, Romania and Russian Federation.
2. The 1986 UNGA Resolution on Principles relating to Remote Sensing

Under Principle XII: a sensed State is entitled to have access to satellite imagery concerning the territory under its jurisdiction from the sensing State on a non-discriminatory basis and on reasonable cost terms. In this regard, needs and interests of the developing countries must be taken into account.

However, this is not a barrier in the distribution of satellite imagery about cultural property.

Firstly, this principle is not a binding rule of international law. More importantly, the resolution does not apply to imagery about cultural property. It applies only to ‘Remote Sensing’ that is carried out “for the purpose of improving natural resources management, land use and the protection of the environment.”
3. **National** restriction on the distribution of imagery from spaceborne sensors.

Pursuant to Article VI of the Outer Space treaty, private companies carrying on space activities, including remote sensing activities, require authorization (licence) and remain under continuing supervision by the appropriate State.

While issuing a licence for remote sensing purposes, States may impose restrictions on their national companies in the collection and distribution of imagery with spaceborne sensors.

The **U.S.** under its Regulations on Licensing of Private Remote Sensing Space Systems [15CFR Part 960.8 (b) of 20 May 2020], requires all licensees to operate their systems “in such manner as to preserve the national security of the United States and to observe international obligations and policies.”
• It may be noted that under the US law, the term “remote sensing” means the collection of data which can be processed into imagery of surface features of the Earth.”

• Similarly, the Canadian Remote Sensing Systems Act defines “remote sensing satellite” as “a satellite that is capable of sensing the surface of the Earth through the use of electromagnetic waves.

• Thus, the scopes of the American and Canadian laws are broader than the one in the UN 1986 Resolution.

• Other countries are adopted data distribution policies and laws similar to that of the U.S. and Canada.
Another international document that may appear relevant

- The 2000 Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters

- The International Charter aims at providing a unified system of space data acquisition and delivery to those affected by natural or man-made disasters through authorized users.

- The Charter is intentionally limited in scope. It does not seem to be much relevance to the collection and distribution of imagery from spaceborne sensors for the protection of cultural property.

- International Charter: Annual Report 2020: “the Charter does not support humanitarian emergencies beyond those related to natural or man-made hazards; for example acts of war, refugee crises, etc. are not covered.”
Conclusions and recommendations

- Collection of imagery from airborne sensors flown in foreign national airspace is a legally challenging proposition. Consequently, it is not very useful and effective for monitoring cultural property both in peace time and in the Event of Armed Conflict.

- Irrespective of some minor issues, imagery from spaceborne sensors can be collected without any kind of prior authorization or consent from the sensed State in whose territory cultural property is situated.

- The 2000 International Charter on Major Disasters is not of much value for monitoring cultural property.

- The 1986 UNGA Resolution on Principles relating to Remote Sensing is not relevant for monitoring cultural property.

- However, it would appear fair that the sensed State should be entitled to have access to satellite imagery concerning the cultural property situated in its territory on a non-discriminatory basis and on reasonable cost terms. In this regard, needs and interests of the developing countries must be taken into account.
Conclusions and recommendations


- Art 53 prohibits: (a) to commit any acts of hostility directed against the historic monuments, works of art or places of worship which constitute the cultural or spiritual heritage of peoples;
  (b) to use such objects in support of the military effort;
  (c) to make such objects the object of reprisals.

- If this Protocol is not referenced in draft Principles Relating to Remote Sensing Monitoring of Cultural Property. It should be.
Thanks for your attention! Questions?