International Law of Disaster: Lessons of cooperation for Astro-Environmentalism

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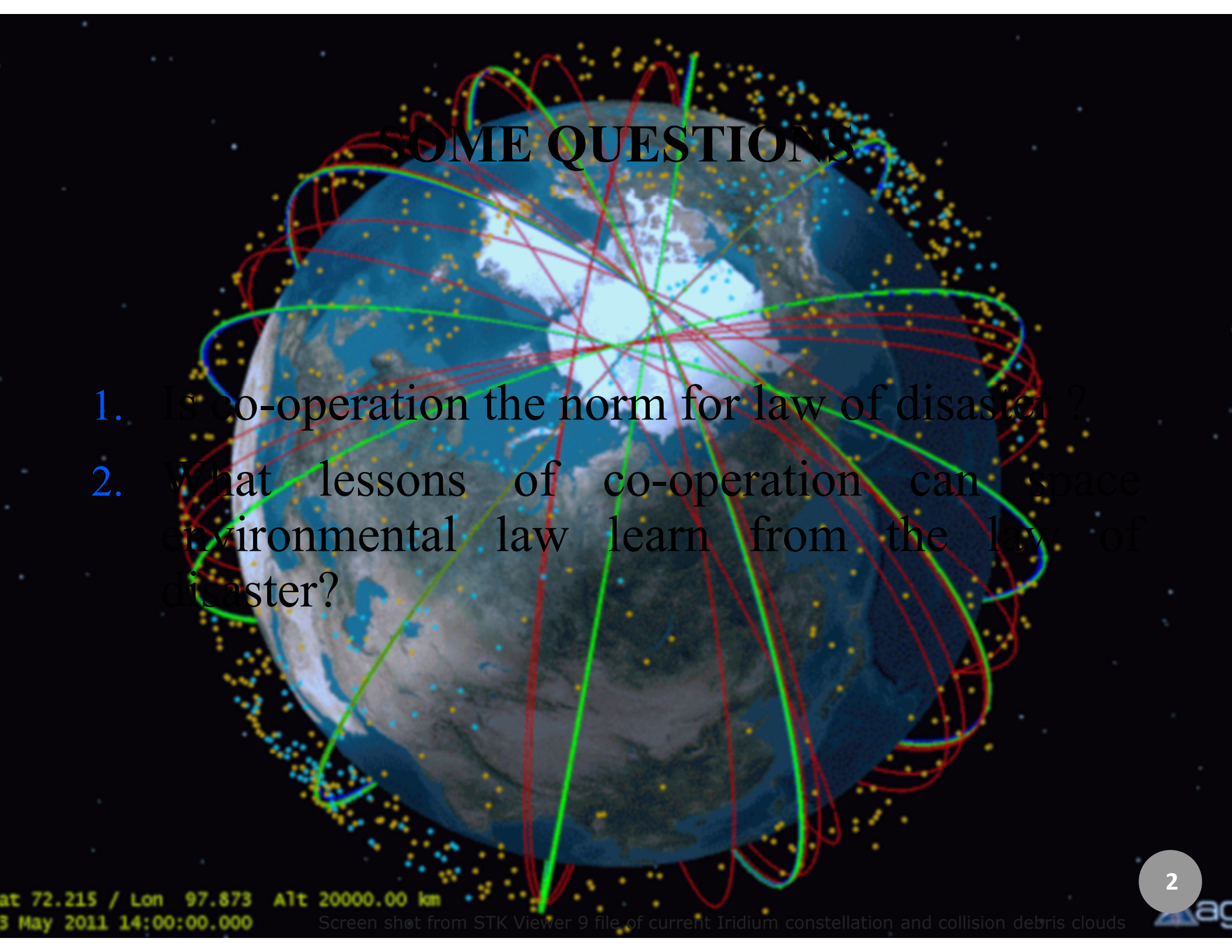
SOME QUESTIONS

1. Is co-operation the norm for law of disaster?
2. What lessons of co-operation can space environmental law learn from the law of disaster?



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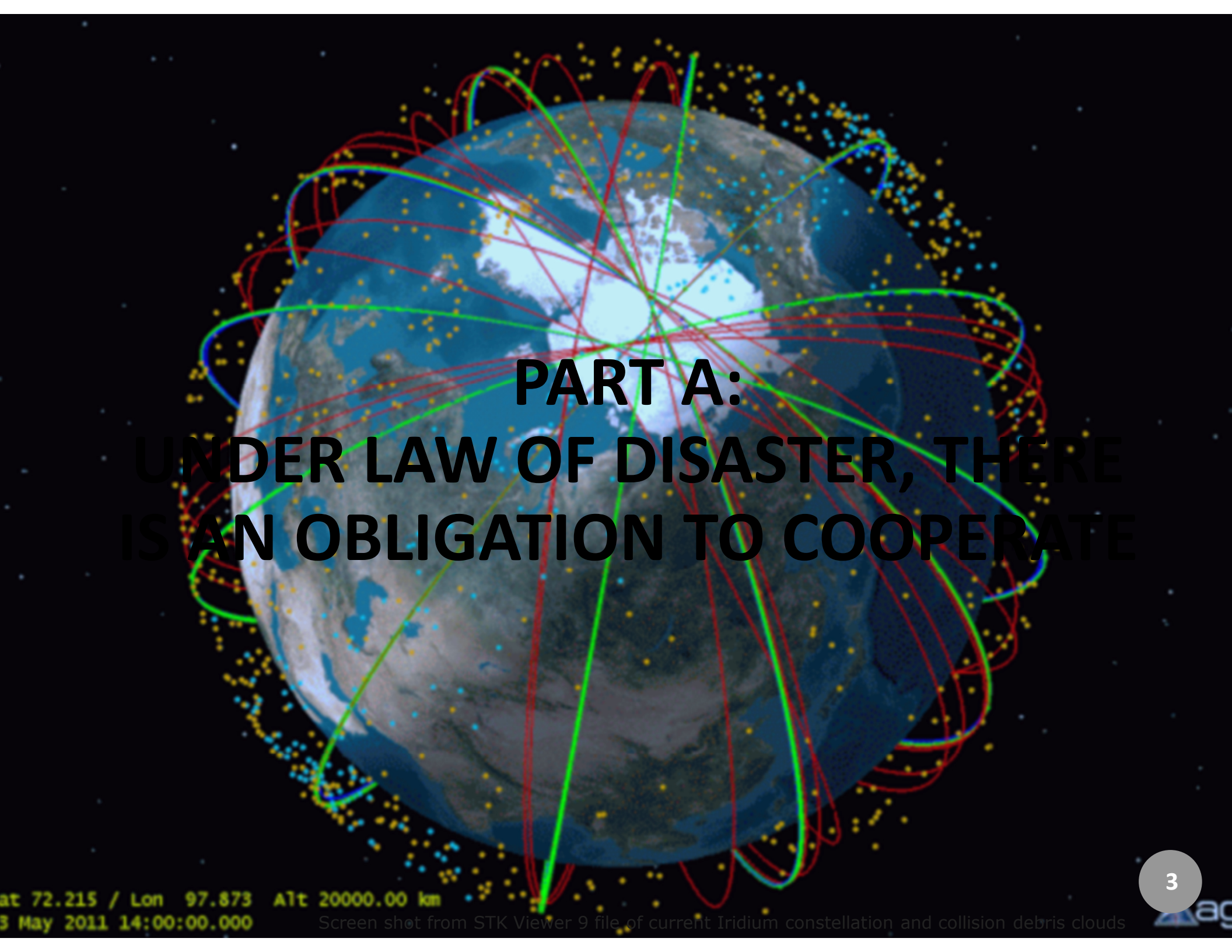

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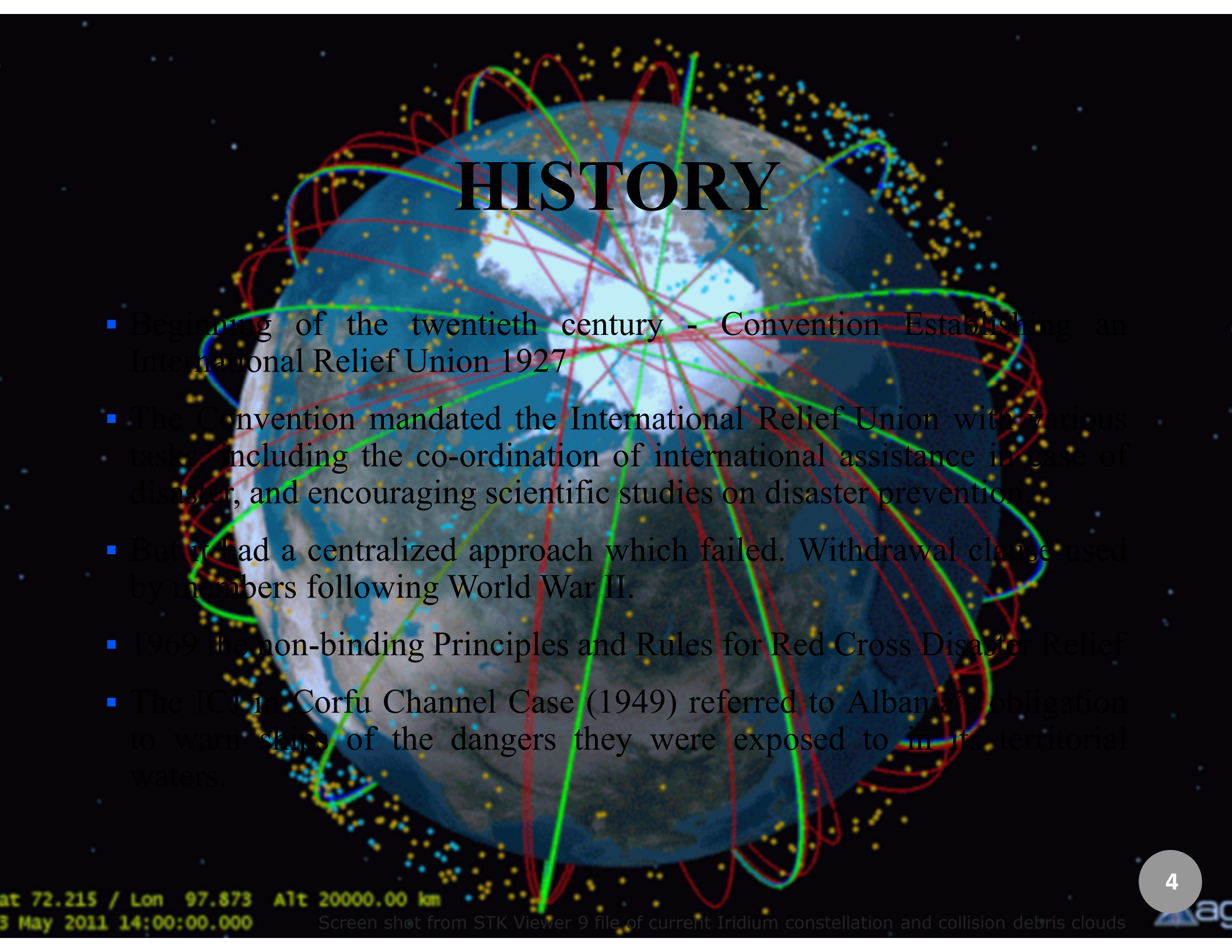
HISTORY

- Beginning of the twentieth century - Convention Establishing an International Relief Union 1927
- The Convention mandated the International Relief Union with various tasks, including the co-ordination of international assistance in case of disaster, and encouraging scientific studies on disaster prevention.
- But it had a centralized approach which failed. Withdrawal clause used by members following World War II.
- 1969 the non-binding Principles and Rules for Red Cross Disaster Relief
- The ICJ in Corfu Channel Case (1949) referred to Albania's obligation to warn ships of the dangers they were exposed to in its territorial waters.



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GENERAL ASSEMBLY RES 46/182 (1991)

- "The magnitude and duration of many emergencies may be beyond the response capacity of many affected countries. International cooperation to address emergency situations and to strengthen the response capacity of affected countries is thus of great importance..." (Guiding Principles, Para 5)
- "The international community should adequately assist developing countries in strengthening their capacity in disaster prevention and mitigation, both at the national and regional levels, for example, in establishing and enhancing integrated programmes in this regard." (Para 13)
- "The international community is urged to provide the necessary support and resources to the programmes and activities undertaken to further the goals and objectives of the decade." (Para 17)
- "International relief assistance should supplement national efforts to improve the capacities of developing countries to mitigate the effects of natural disaster..." (para 18)

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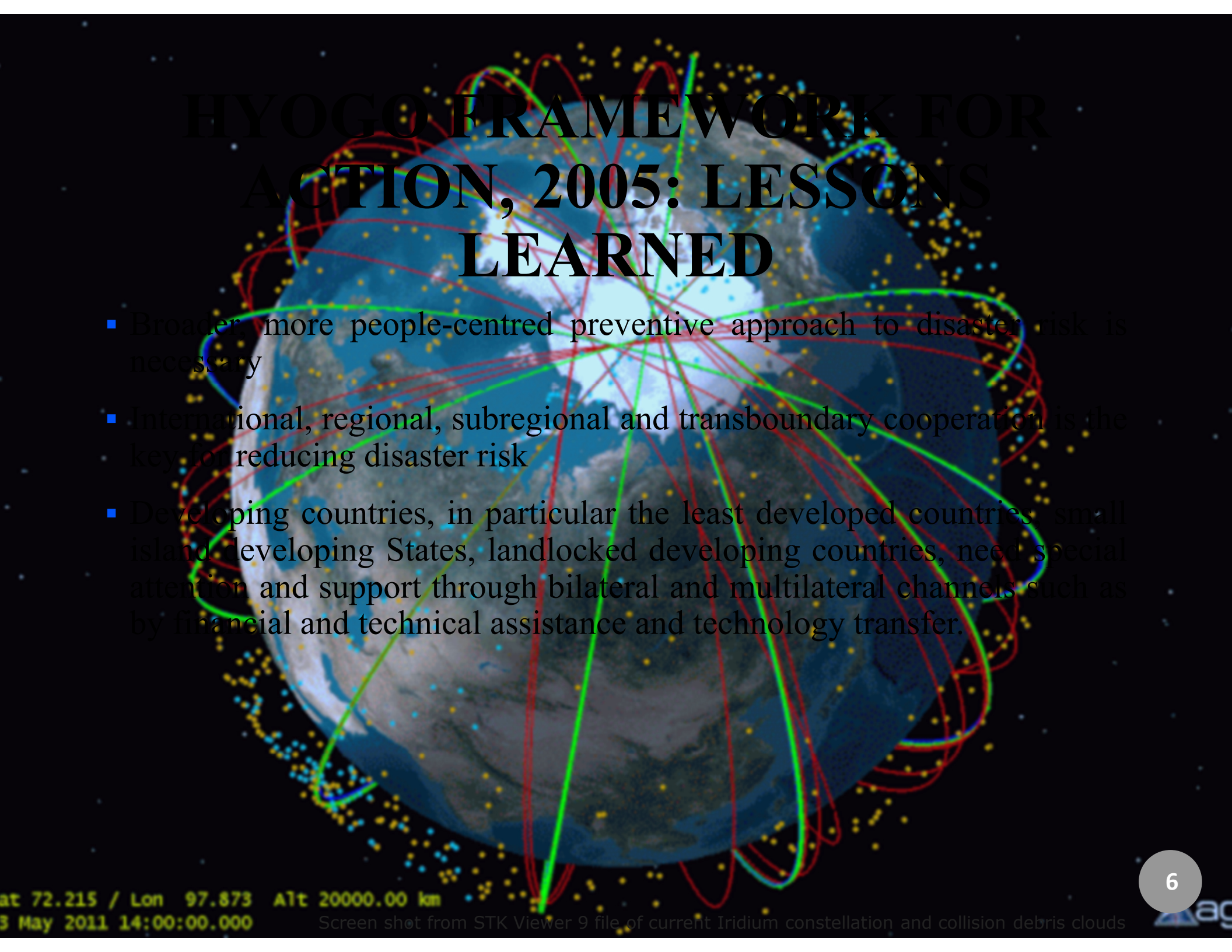
HYOGO FRAMEWORK FOR ACTION, 2005: LESSONS LEARNED

- Broader, more people-centred preventive approach to disaster risk is necessary
- International, regional, subregional and transboundary cooperation is the key for reducing disaster risk
- Developing countries, in particular the least developed countries, small island developing States, landlocked developing countries, need special attention and support through bilateral and multilateral channels such as by financial and technical assistance and technology transfer.



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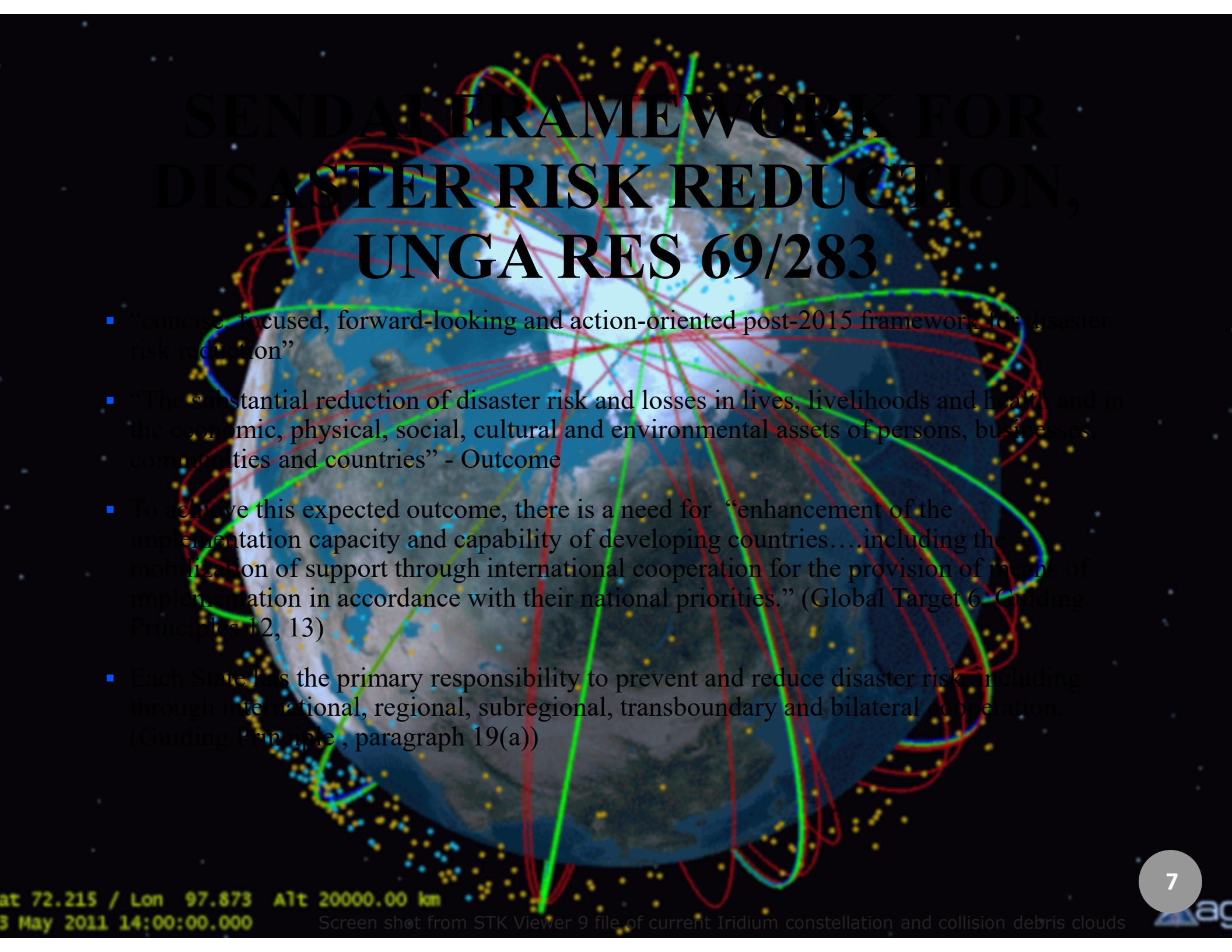
SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION, UNGA RES 69/283

- "concise, focused, forward-looking and action-oriented post-2015 framework for disaster risk reduction"
- "The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries" - Outcome
- To achieve this expected outcome, there is a need for "enhancement of the implementation capacity and capability of developing countries….including the mobilization of support through international cooperation for the provision of means of implementation in accordance with their national priorities." (Global Target 6, Guiding Principles 12, 13)
- Each State has the primary responsibility to prevent and reduce disaster risk, including through international, regional, subregional, transboundary and bilateral cooperation. (Guiding Principle , paragraph 19(a))



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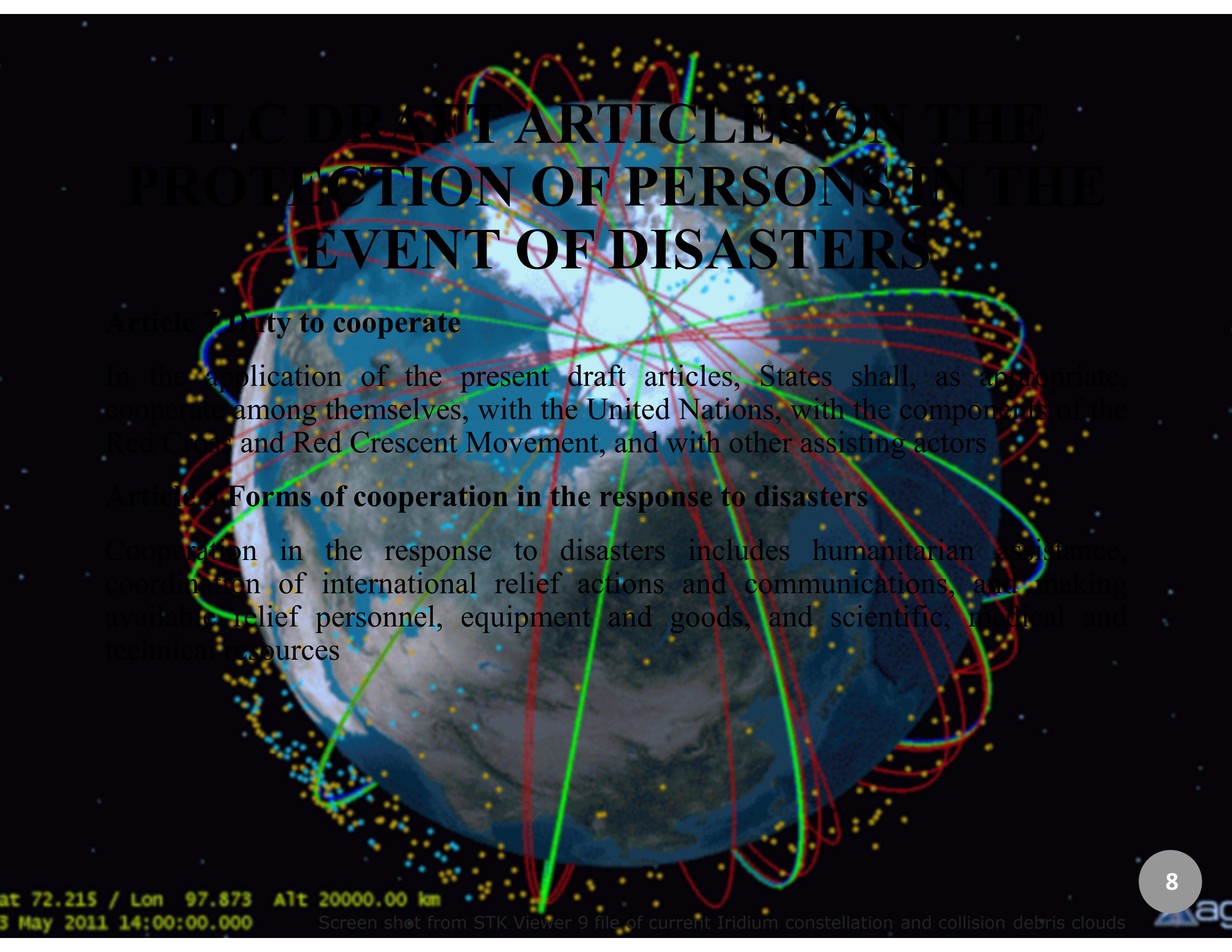
ILC DRAFT ARTICLES ON THE PROTECTION OF PERSONS IN THE EVENT OF DISASTERS

Article 7 Duty to cooperate

In the application of the present draft articles, States shall, as appropriate, cooperate among themselves, with the United Nations, with the components of the Red Cross and Red Crescent Movement, and with other assisting actors

Article 8 Forms of cooperation in the response to disasters

Cooperation in the response to disasters includes humanitarian assistance, coordination of international relief actions and communications, and making available relief personnel, equipment and goods, and scientific, medical and technical resources



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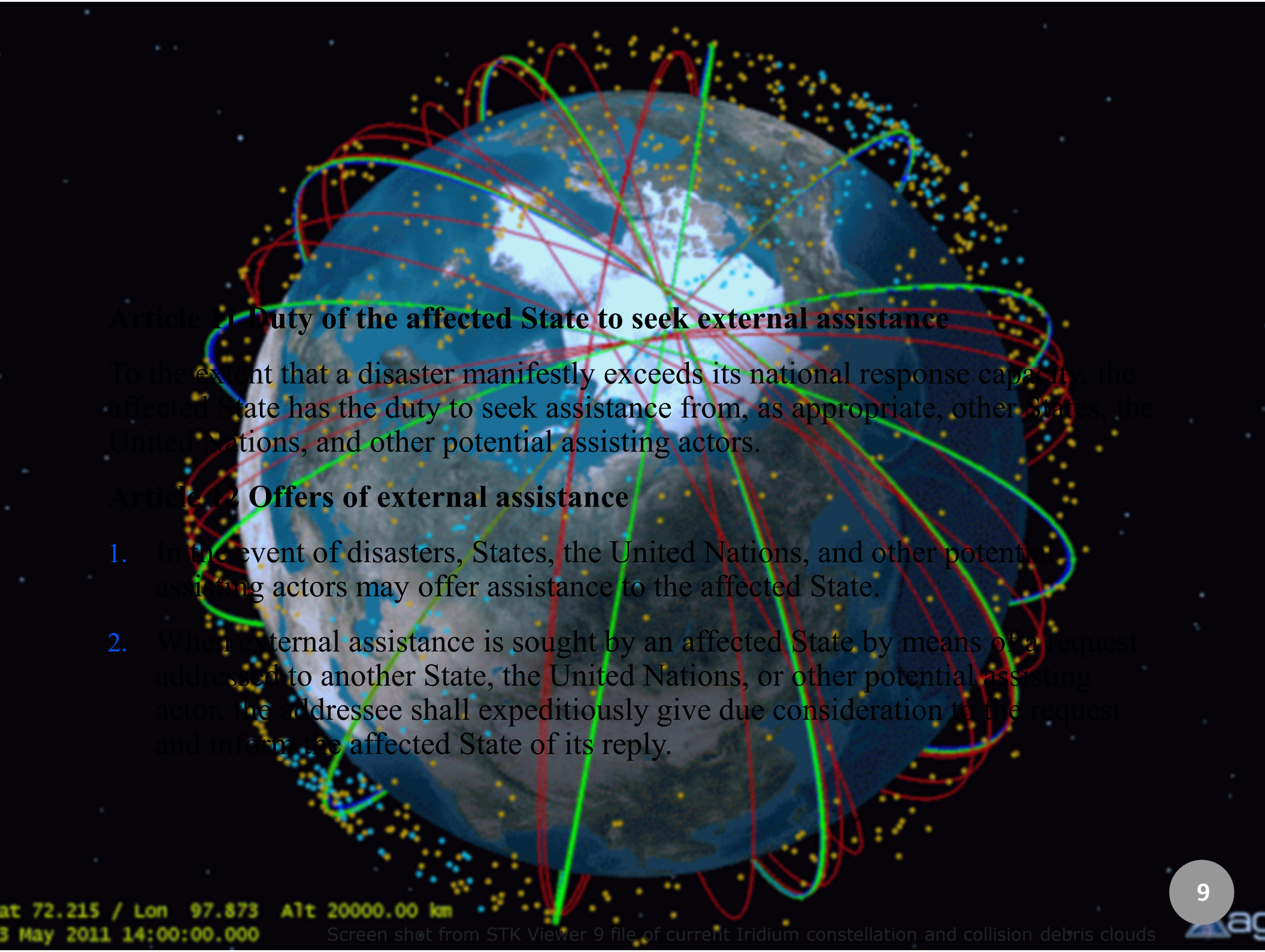

Article 11 Duty of the affected State to seek external assistance

To the extent that a disaster manifestly exceeds its national response capacity, the affected State has the duty to seek assistance from, as appropriate, other States, the United Nations, and other potential assisting actors.

Article 12 Offers of external assistance

1. In the event of disasters, States, the United Nations, and other potential assisting actors may offer assistance to the affected State.

2. When external assistance is sought by an affected State by means of a request addressed to another State, the United Nations, or other potential assisting actor, the addressee shall expeditiously give due consideration to the request and inform the affected State of its reply.

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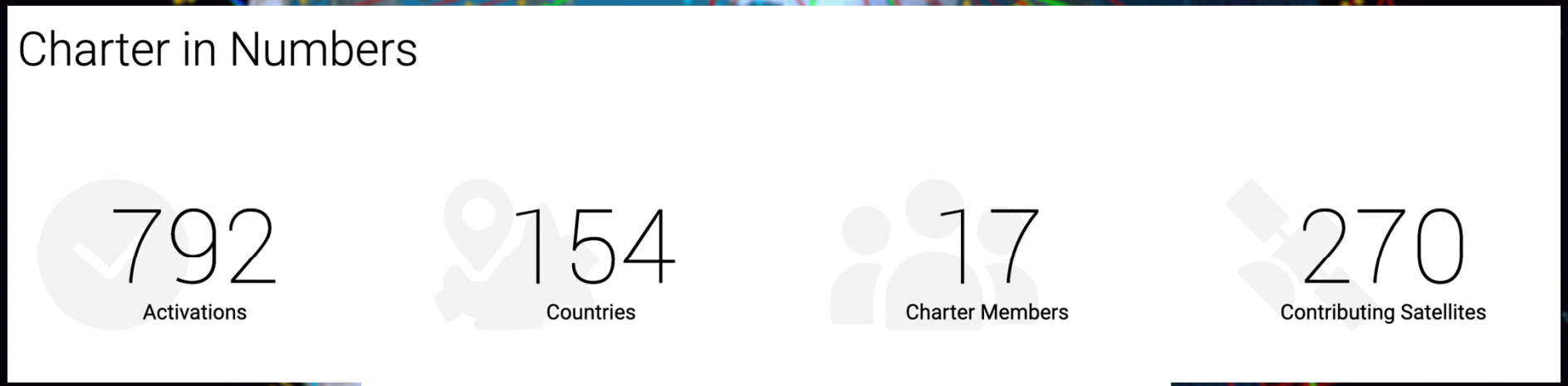
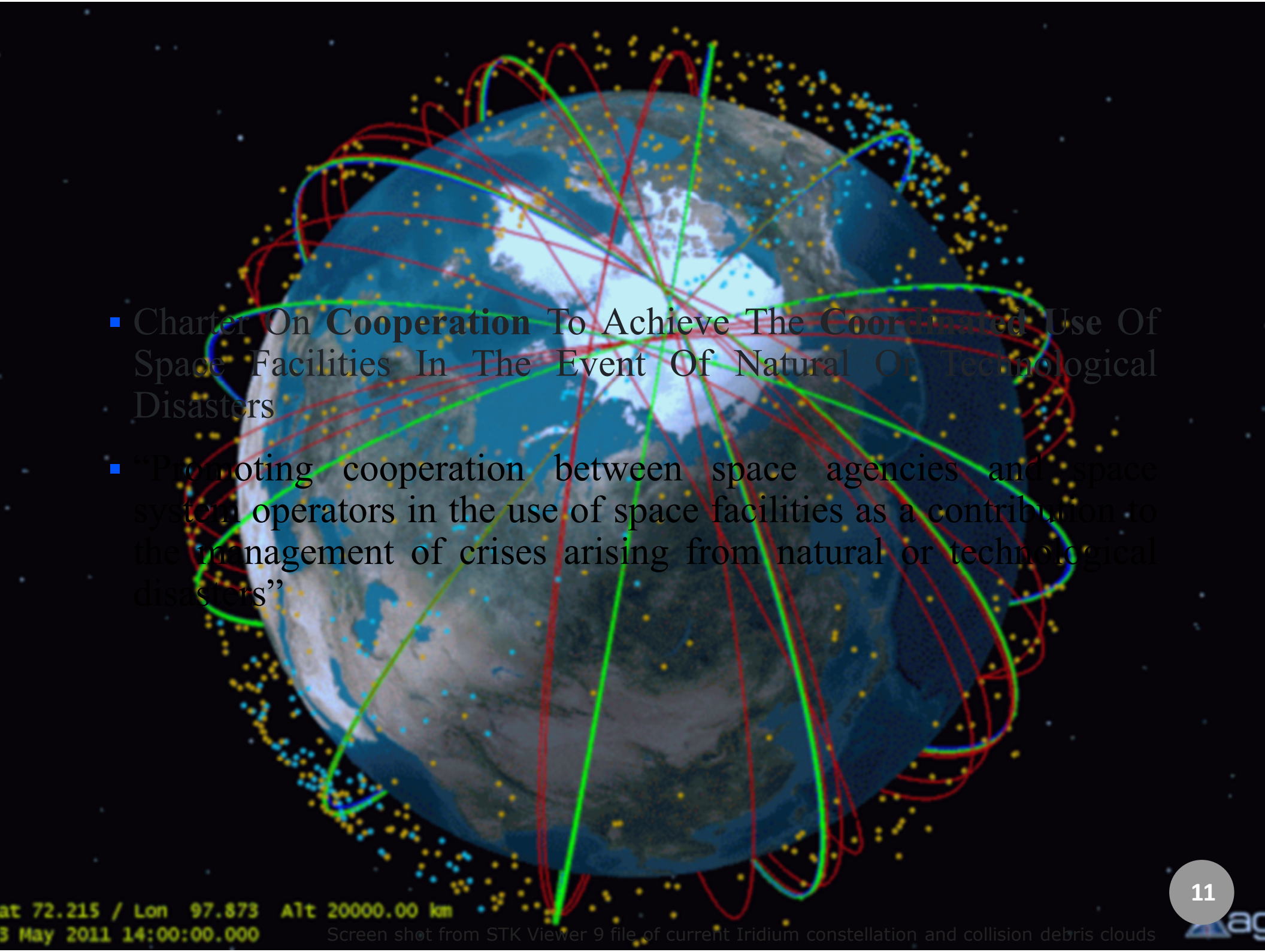
INTERNATIONAL CHARTER ON SPACE AND MAJOR DISASTERS

- Composed of space agencies and space system operators from around the world who work together to provide satellite imagery for disaster monitoring purposes. Established on 20 October 2000.





- Charter On **Cooperation** To Achieve The Coordinated Use Of Space Facilities In The Event Of Natural Or Technological Disasters
- "Promoting cooperation between space agencies and space system operators in the use of space facilities as a contribution to the management of crises arising from natural or technological disasters"

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UNITED NATIONS PLATFORM FOR SPACE-BASED INFORMATION FOR DISASTER MANAGEMENT AND EMERGENCY RESPONSE, UNGA RES 61/110

- "Deeply convinced of the urgent need for enhanced coordination efforts at the global level to reduce the impact of disasters" – Preamble 4
- "Recognizing, in that regard, that unnecessary loss of life and property could be avoided if better information were available regarding the risk and onset of disasters, through improved risk assessment, early warning and monitoring of disasters" – Preamble 5
- "Desirous of enhancing international coordination at the global level in disaster management and emergency response through greater access to and use of space-based services for all countries and facilitating capacity-building and institutional strengthening for disaster management, in particular in developing countries" – Preamble 7
- Resolution 4: Notes with concern that unless a global, integrated and coordinated approach is undertaken, building upon the experiences of existing international initiatives, the utilization of space assets in support of disaster management will continue to lag significantly in most parts of the world and that a considerable gap will exist and is likely to remain in all areas of space technology applications to disaster management

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TAMPERE CONVENTION ON THE PROVISION OF TELECOMMUNICATION RESOURCES FOR DISASTER MITIGATION AND RELIEF OPERATIONS

- Adopted on 18 June 1998, came into force 8 January 2005
- Until Tampere, the trans-border use of telecommunication equipment by humanitarian organizations was often impeded by national regulatory barriers.
- The treaty simplifies the use of life-saving telecommunication equipment, especially by relief workers and in assistance to mitigate the impact of a disaster.
- Its preamble notes "the history of international cooperation and coordination in disaster mitigation and relief, including the demonstrated life-saving role played by the timely deployment and use of telecommunication resources"
- Preamble further notes "Resolution 7 of the World Telecommunication Development Conference (Buenos Aires, 1994), endorsed by Resolution 36 of the Plenipotentiary Conference of the International Telecommunication Union (Kyoto, 1994), urging governments to take all practical steps for facilitating the rapid deployment and the effective use of telecommunication equipment for disaster mitigation and relief operations by reducing and, where possible, removing regulatory barriers and strengthening cooperation among States"

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BILATERAL TREATIES

- UN Doc A/CN.4/590/Add.2 (2008)

II. Bilateral treaties

62. Agreement concerning the United States relief assistance to the Chinese people (with Exchange of Notes), of 27 October 1947, China — United States of America, United Nations, *Treaty Series*, vol. 12, No. 178.

63. Exchange of Notes between the Governments of Australia and of Greece concerning the gift of relief supplies to Greece, of 1 July 1948, and supplementary Exchange of Notes, United Nations, *Treaty Series*, vol. 22, No. 329.

64. Agreement for Duty-Free Entry and Defrayment of Inland Transportation of Charges of Relief Supplies and Packages, India — United States of America, of 9 July 1951, United Nations, *Treaty Series*, vol. 147, No. 1927.

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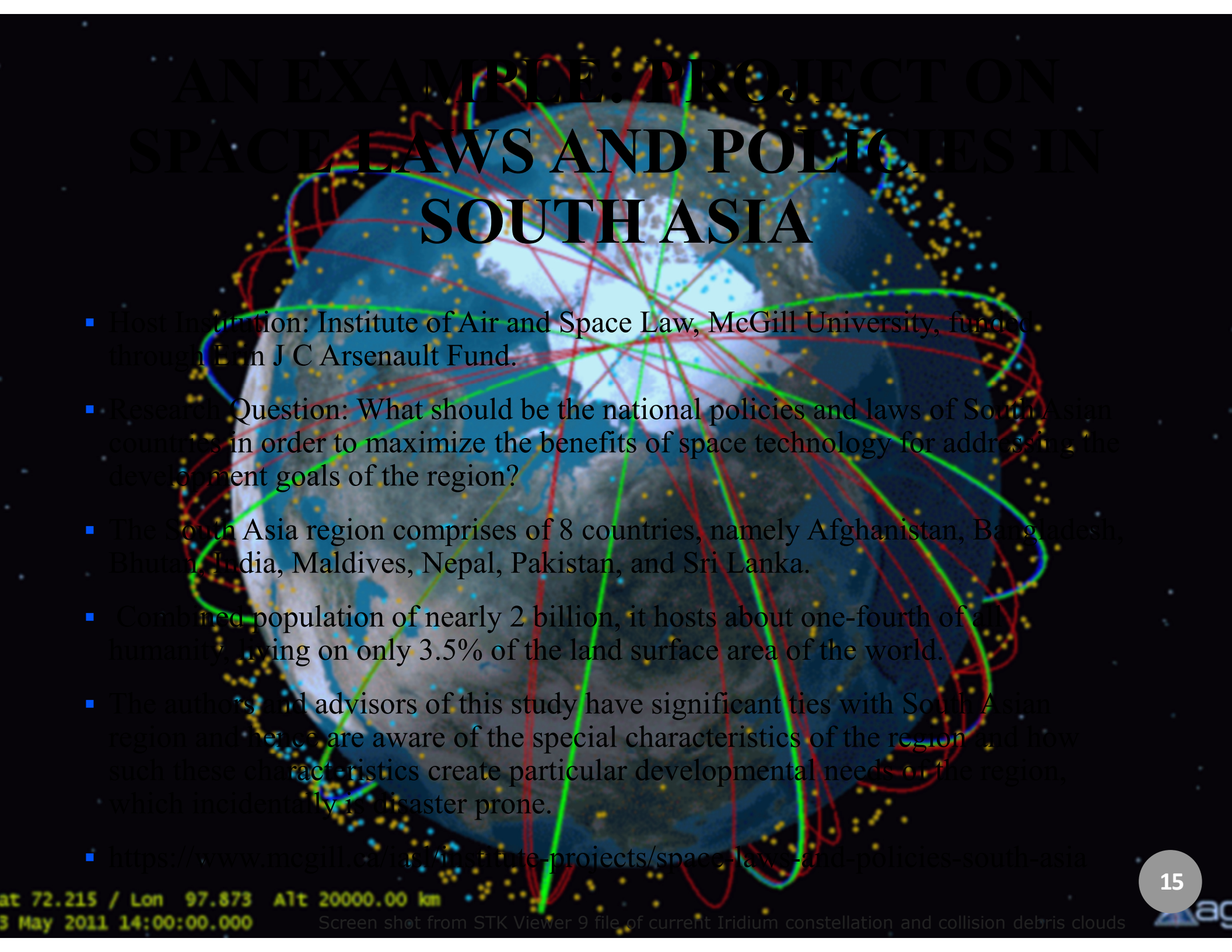
AN EXAMPLE: PROJECT ON SPACE LAWS AND POLICIES IN SOUTH ASIA

- Host Institution: Institute of Air and Space Law, McGill University, funded through Dean J C Arsenault Fund.
- Research Question: What should be the national policies and laws of South Asian countries in order to maximize the benefits of space technology for addressing the development goals of the region?
- The South Asia region comprises of 8 countries, namely Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- Combined population of nearly 2 billion, it hosts about one-fourth of all humanity, living on only 3.5% of the land surface area of the world.
- The authors and advisors of this study have significant ties with South Asian region and hence are aware of the special characteristics of the region and how such these characteristics create particular developmental needs of the region, which incidentally is disaster prone.
- https://www.mcgill.ca/iasl/institute-projects/space-laws-and-policies-south-asia



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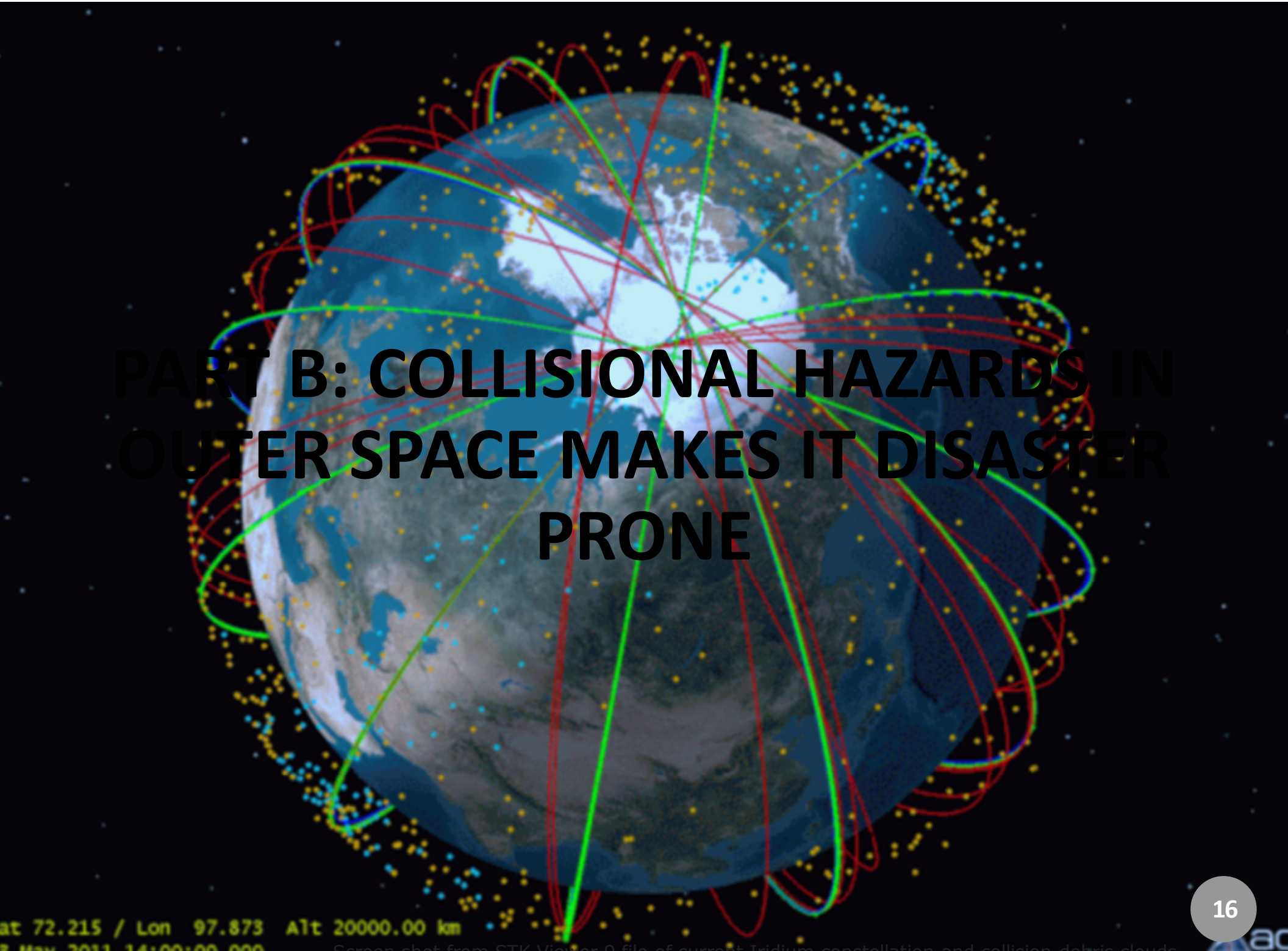
PART B: COLLISIONAL HAZARDS IN OUTER SPACE MAKES IT DISASTER PRONE



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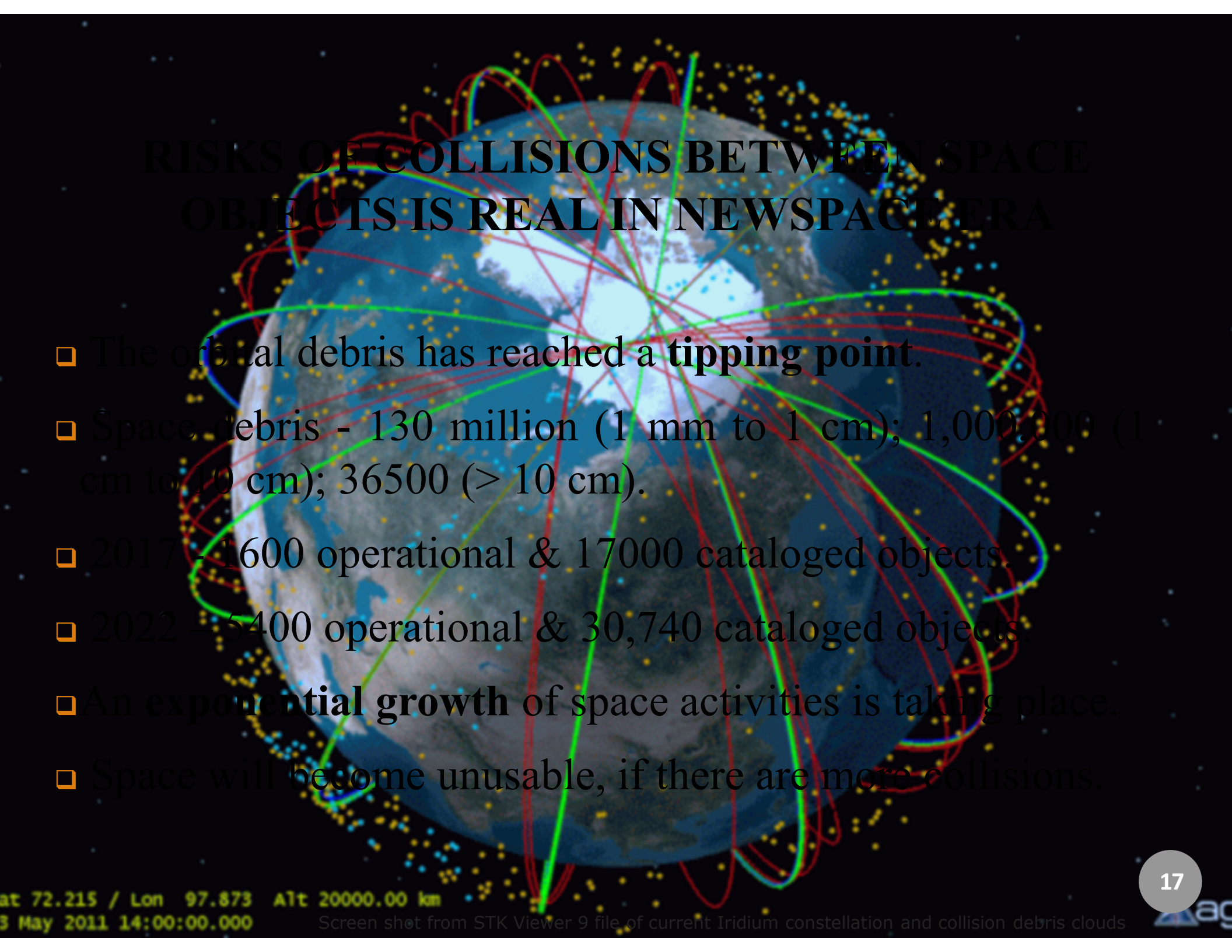
RISKS OF COLLISIONS BETWEEN SPACE OBJECTS IS REAL IN NEWSPACE ERA



- The orbital debris has reached a **tipping point**.
- Space debris - 130 million (1 mm to 1 cm); 1,000,000 (1 cm to 10 cm); 36500 (> 10 cm).
- 2017 – 1600 operational & 17000 cataloged objects.
- 2022 – 5400 operational & 30,740 cataloged objects.
- An exponential **growth** of space activities is taking place.
- Space will become unusable, if there are more collisions.

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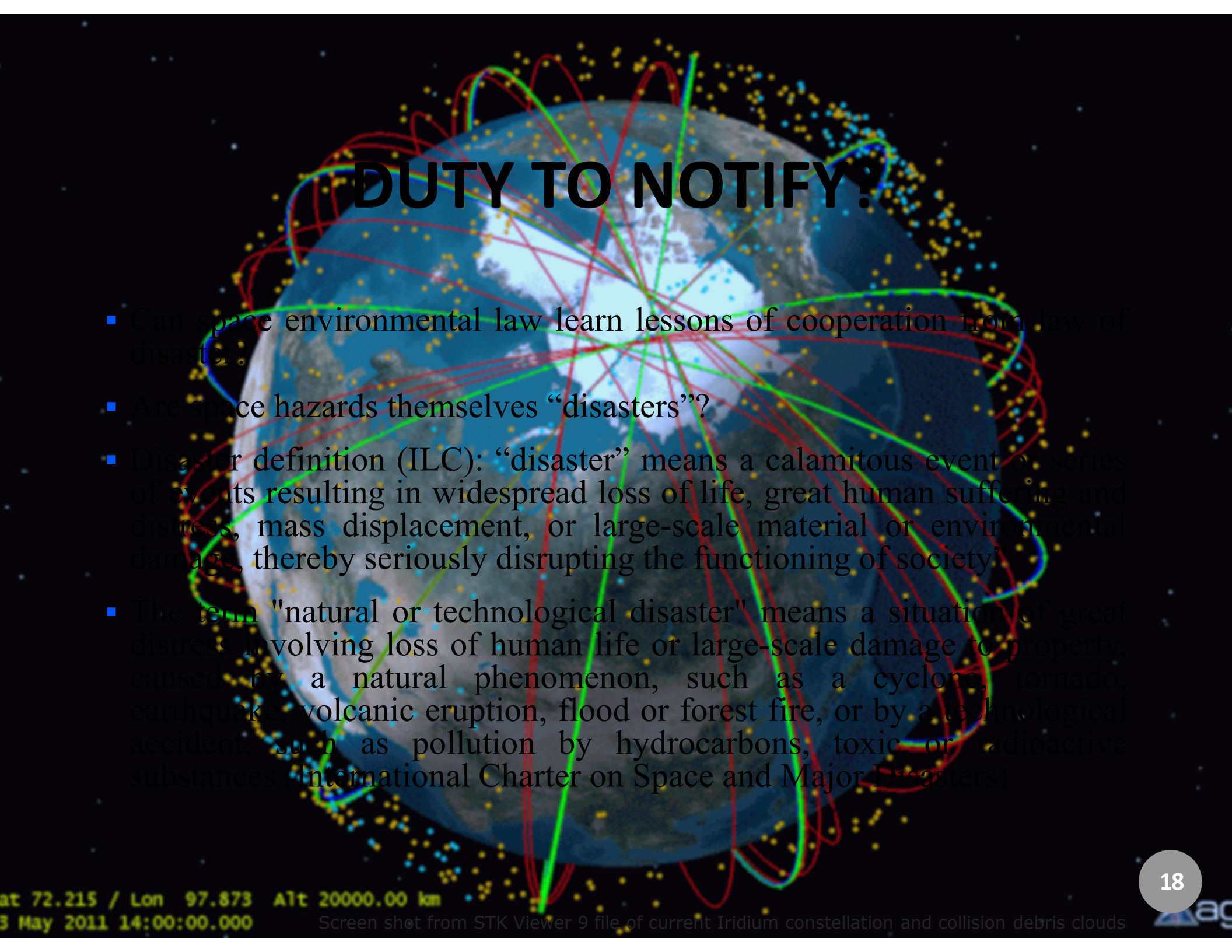
DUTY TO NOTIFY?

- Can space environmental law learn lessons of cooperation from law of disaster?
- Are space hazards themselves "disasters"?
- Disaster definition (ILC): "disaster" means a calamitous event or series of events resulting in widespread loss of life, great human suffering and distress, mass displacement, or large-scale material or environmental damage, thereby seriously disrupting the functioning of society"
- The term "natural or technological disaster" means a situation of great distress involving loss of human life or large-scale damage to property, caused by a natural phenomenon, such as a cyclone, tornado, earthquake, volcanic eruption, flood or forest fire, or by a technological accident, such as pollution by hydrocarbons, toxic or radioactive substances (International Charter on Space and Major Disasters)



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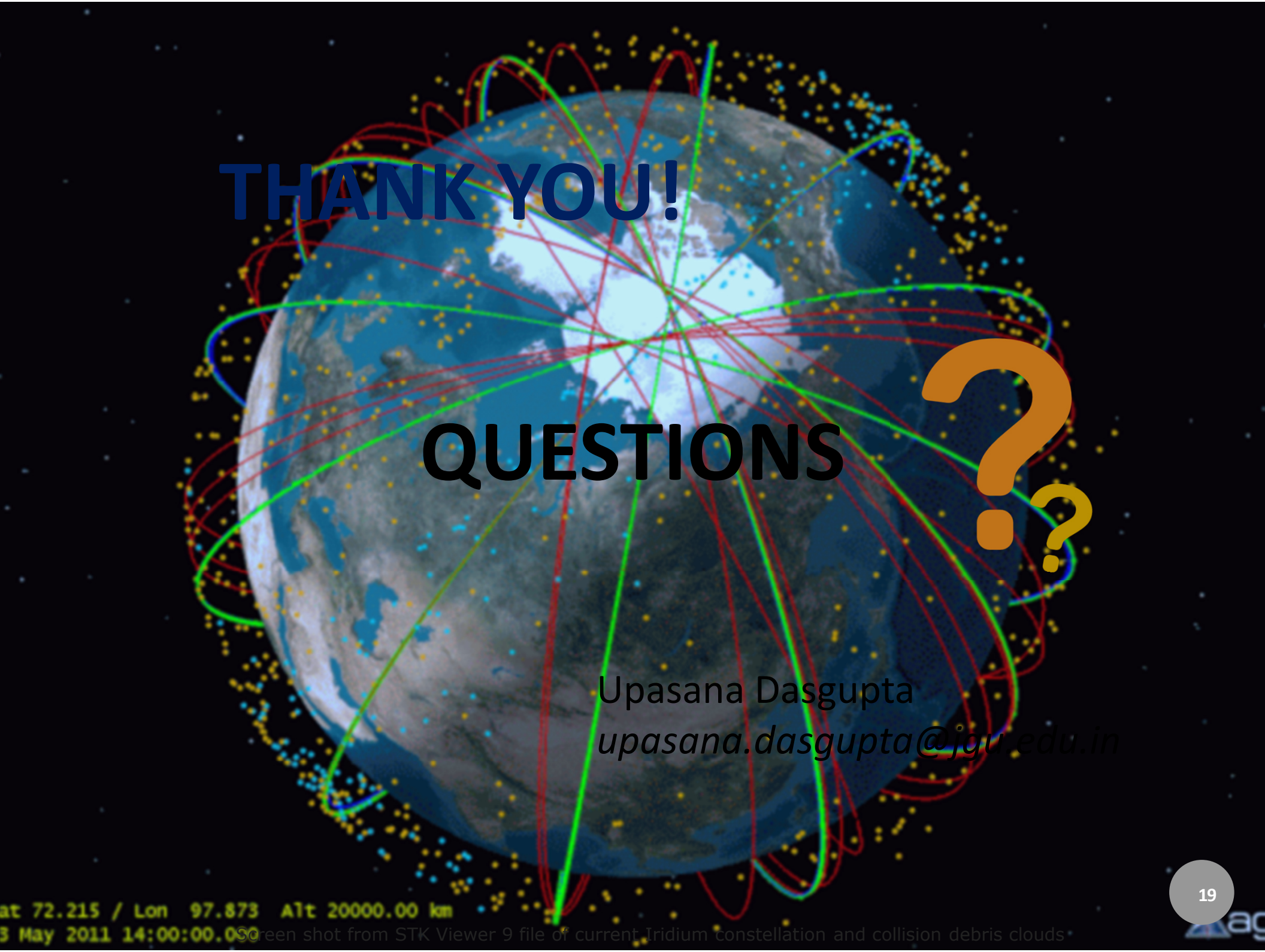

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