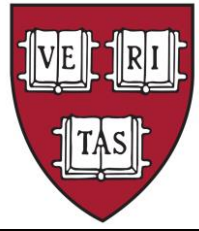


The Legal Aspects of Planetary Defense: SMPAG Ad-Hoc Legal Working Group Key Report Conclusions



7th Planetary Defense Conference – April 27th, 2021

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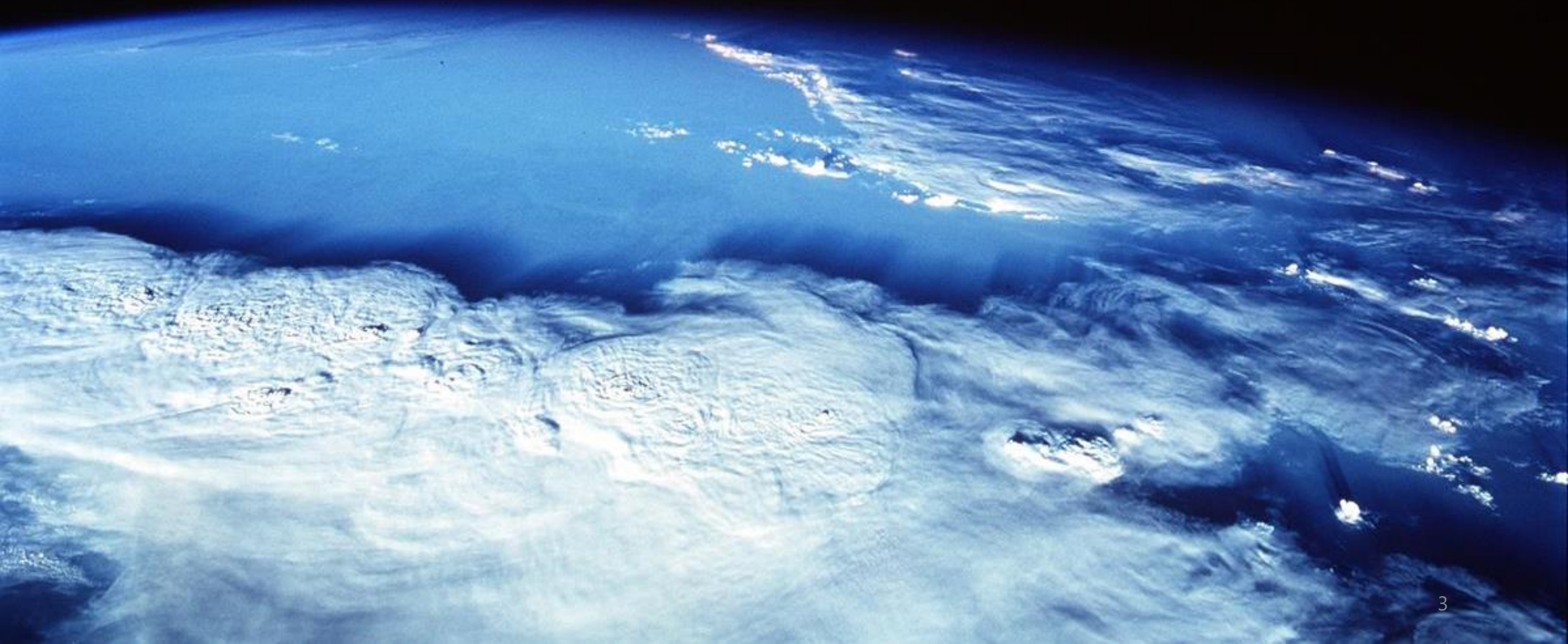
Photo par NASA / Public domain

Structure



- **I. Context**
- **II. SMPAG ad-Hoc LWG Key Report Conclusions**
- **III. To know more...**

I. Context



Our Team



HISTORY

Created in 2016 by SMPAG, the SMPAG LWG is currently composed of 15 international space lawyers from NASA, ESA, DLR and the Mexican, Italian, Austrian and UK Space Agencies. The role of the SMPAG LWG is to answer SMPAG's legal questions regarding a Planetary Defense mitigation mission.





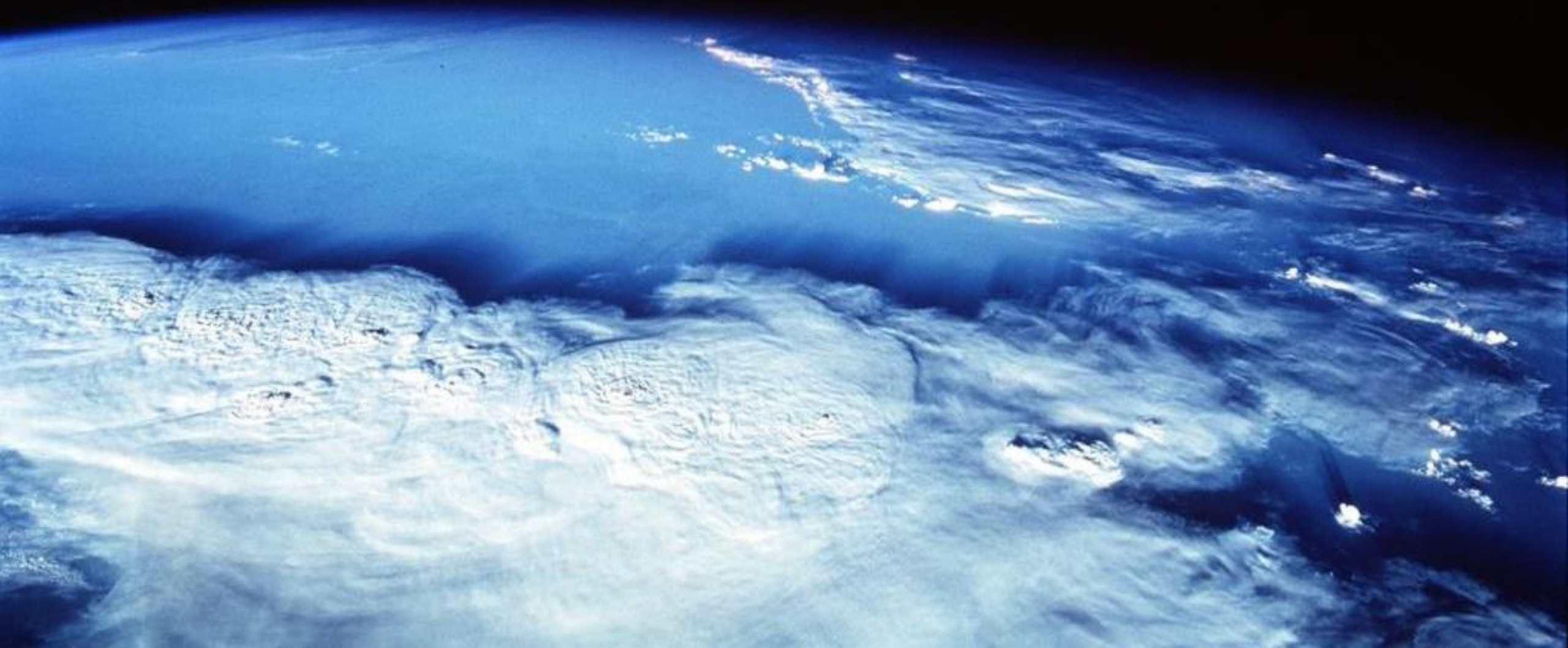
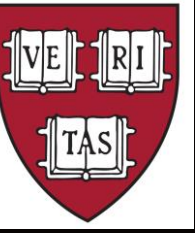
The SMPAG Ad-Hoc Legal Working Group (2016-)

- The SMPAG Legal WG shall:
 - ❑ Describe the existing legal context, in particular international law, relevant to the work of SMPAG;
 - ❑ Identify, formulate and prioritize relevant legal questions and issues requiring clarification;
 - ❑ Where necessary, suggest possible ways forward to deal with legal questions and issues;
 - ❑ And provide legal advice to SMPAG, as required.

Disclaimer:

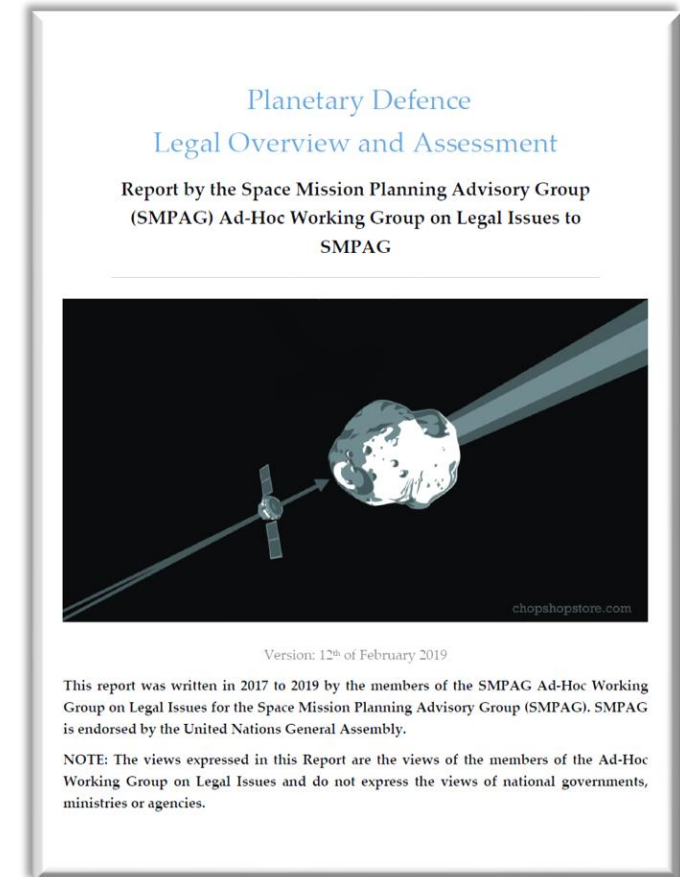
- The report's conclusions represent the views of the participating experts; They do not reflect the positions of their national space agencies, ministries, or governments.
- These are preliminary conclusions: many points are matters that the legal community has not previously addressed and that remain debatable; As new relevant data comes to light, revisions may be necessary.

II. Report's Conclusions



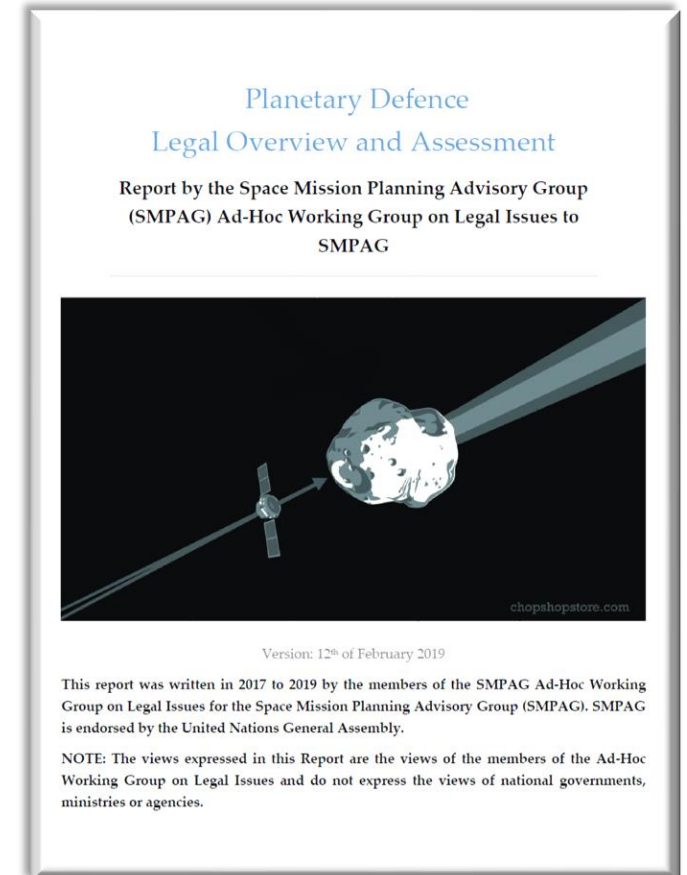
International Law

- States are obliged to act in accordance with their international legal obligations. Planetary defense missions must be carried out in accordance with international law.
- Under the Outer Space Treaty, each party is internationally responsible for the space activities of its governmental and non-governmental entities (such as private corporations) and is required to authorize and continuously supervise non-governmental activities.



Obligation to Inform and Liability regarding misinformation

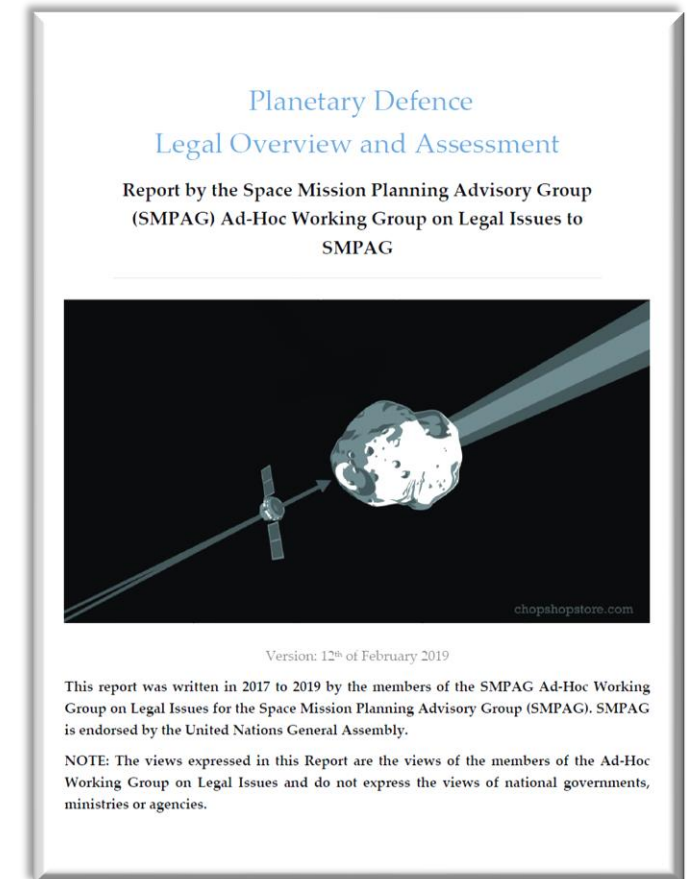
- If a State has information relevant to the prediction of a NEO impact threat to Earth, **such information should be made available and shared**. (based on OST Article XI and IX)
- If any planetary defense-related information that is shared by a State or an international group such as SMPAG or IAWN, turns out to be false, the state or group who shared that information **will not be liable** if:
 - a) diligent and well-founded probabilistic information was provided in good faith. (However, legal action under national law in domestic courts cannot be excluded)
 - b) If that information is distorted or misinterpreted (by the media for ex.)
- However, if a State releases information that it knows to be false in a grossly negligent manner or even deliberately, there might be a basis for a claim to compensation (for internationally wrongful acts).



Obligation to Act

In case of a NEO threat:

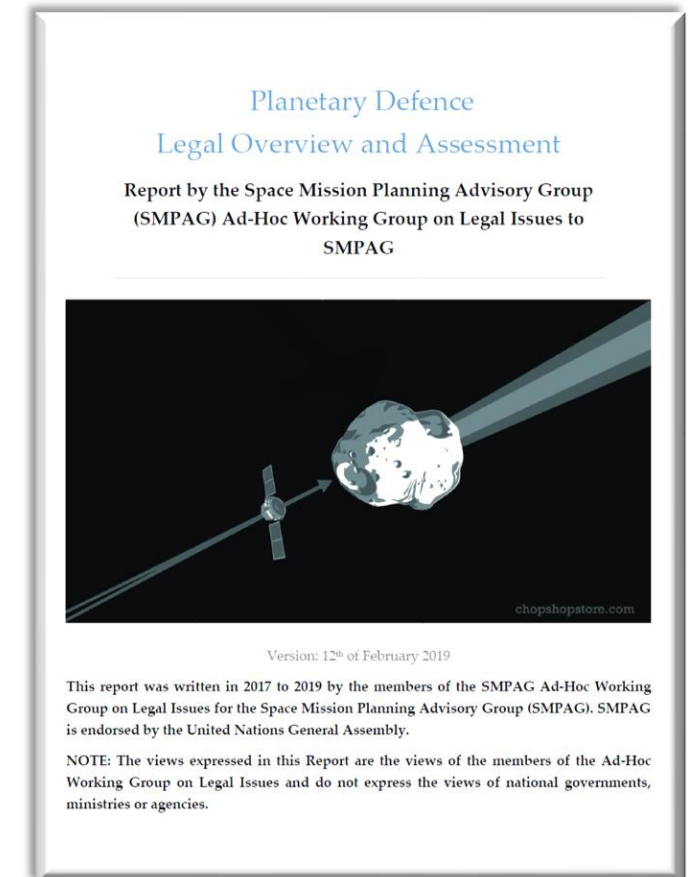
- A State has a legal obligation to try to protect its territory and its population. However, this will depend on the existing capacity and availability of resources of the State in question.
- A non-impacted State would not have a legal obligation to assist another state at risk to be impacted.



Legality of Planetary Defense Methods

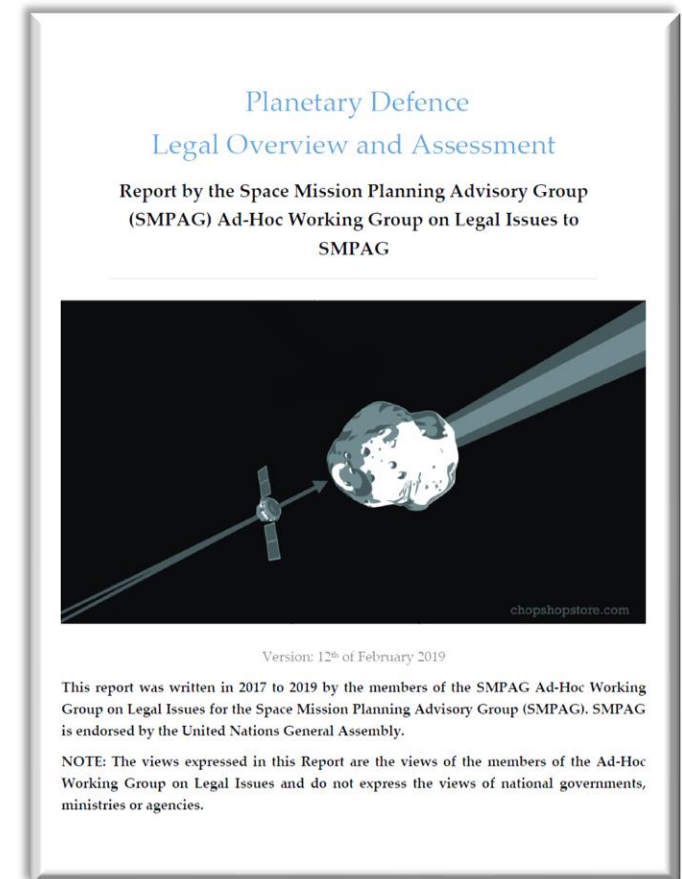
- The slow push/pull methods (gravity tractors, enhanced gravity tractors, ion beam shepherds and laser ablation) do not raise any particular issues of legality under international law.
- Exception: the use of NEDs in outer space (cf. previous presentation)

The Outer Space Treaty prohibits placing a nuclear weapon in orbit, installing it on a celestial body, or stationing it in space in any other manner. The Limited Test Ban Treaty prohibits any nuclear explosion in outer space, regardless of its intended purpose)



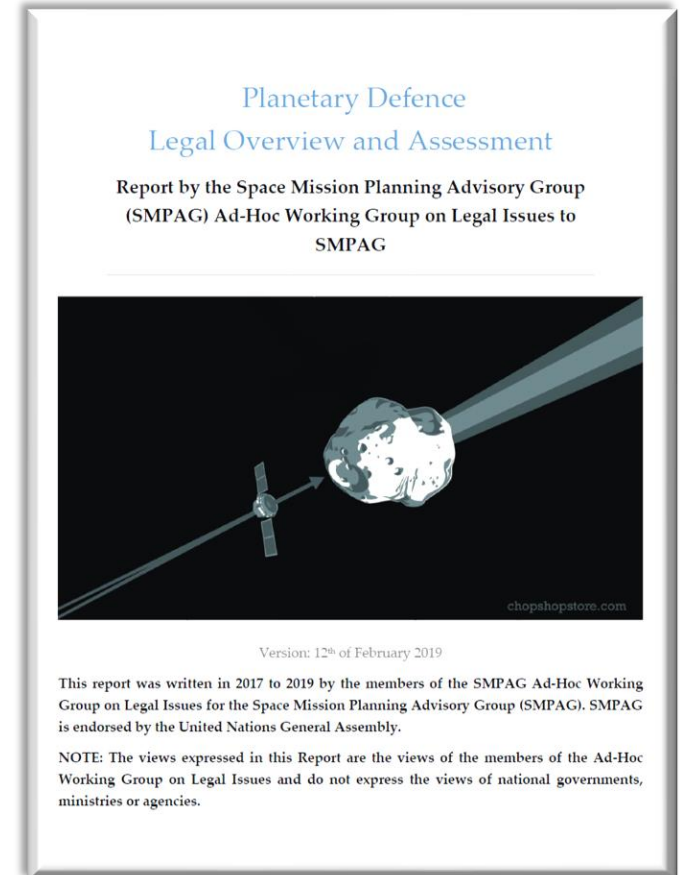
Liability for damage

- A State has liability for damage done by any space object for which it is a launching State. For damage inflicted on Earth, the liability is 'absolute' (that is, it applies even without any wrongdoing). Absolute liability includes cases where an asteroid is insufficiently deflected and impacts at a different location compared to where it would have struck if there had been no intervention.
- Also, in case of malfunctions, failures and damage caused on Earth or in outer space, the general rules on responsibility and liability apply (cf. next presentation)

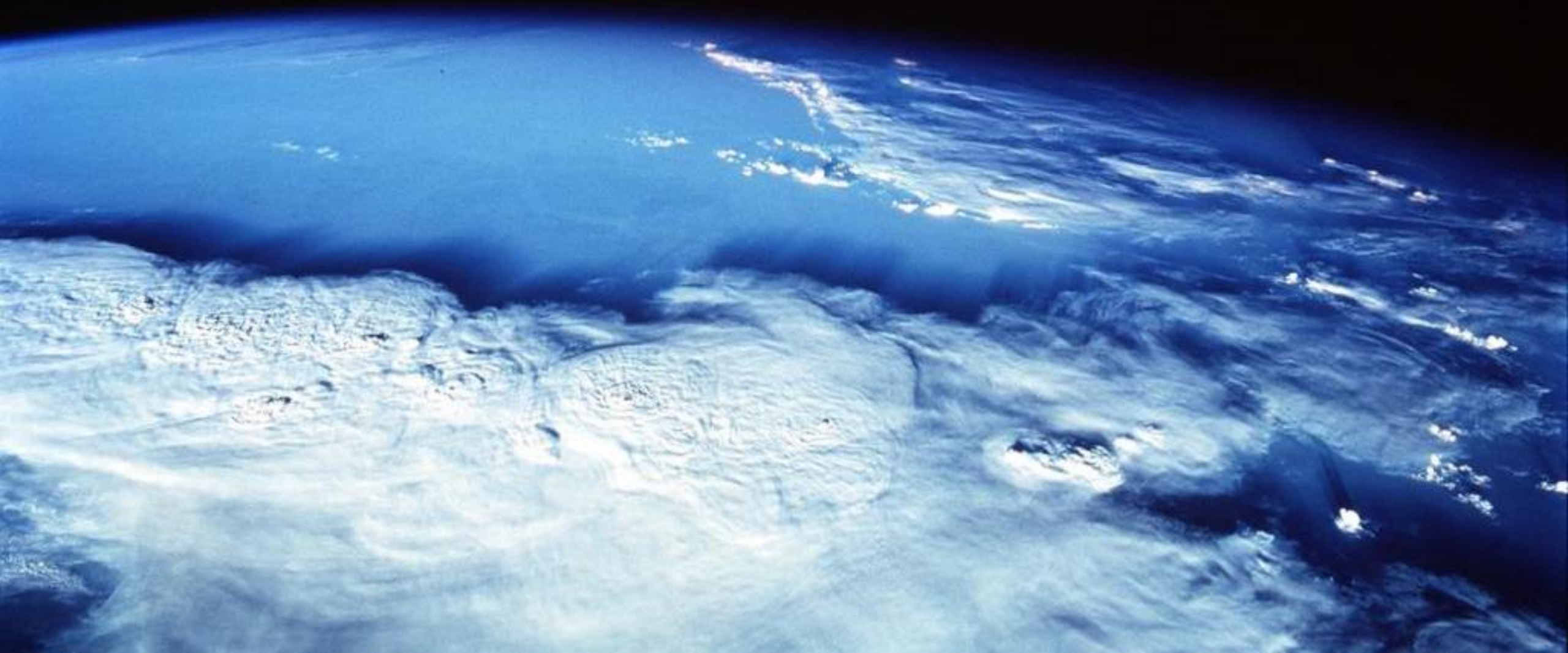


Decision-Making bodies

- Regarding possible decision-making bodies for planetary defense action planning, the United Nations Security Council (UNSC) has extraordinary power to supersede rules of international law through a decision, which requires the votes of nine out of fifteen Members and no opposing vote by one of the Permanent Five (P5) Members of the UNSC.
- Other international institutions and organizations could provide valuable political support for a planetary defense action (cf. next presentation)



III. To Know More...

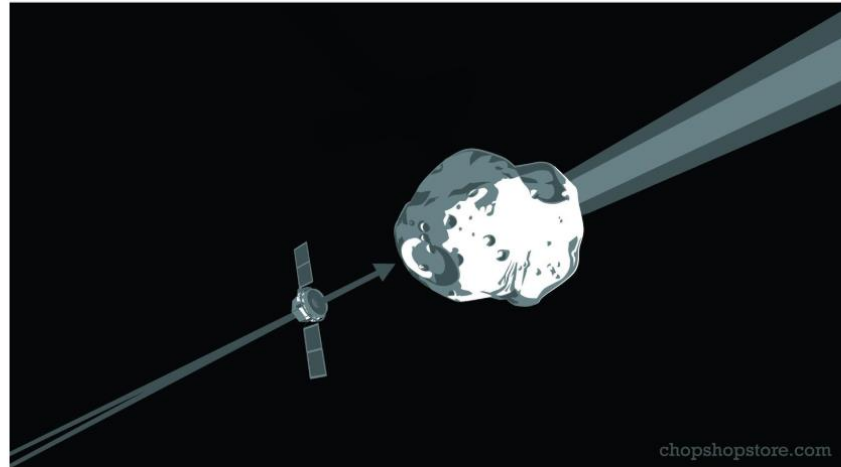


Our Report



Planetary Defence Legal Overview and Assessment

Report by the Space Mission Planning Advisory Group
(SMPAG) Ad-Hoc Working Group on Legal Issues to
SMPAG



Version: 12th of February 2019

This report was written in 2017 to 2019 by the members of the SMPAG Ad-Hoc Working Group on Legal Issues for the Space Mission Planning Advisory Group (SMPAG). SMPAG is endorsed by the United Nations General Assembly.

NOTE: The views expressed in this Report are the views of the members of the Ad-Hoc Working Group on Legal Issues and do not express the views of national governments, ministries or agencies.

www.cosmos.esa.int + [“Planetary Defence Legal Overview and Assessment”](#)

Session Decision to Act

Friday April 30th, Noon-1.30pm CET



3 Additional Oral Presentations on the Legal Aspects of Planetary Defense

Mr Luciano Vaz Ferreira

Ph.D. Candidate

University of Reading

Liability waivers and Planetary defense missions: The Good Samaritan Principle

Mr. Krzysztof Niewęglowski

Phd Candidate

Maria Curie Skłodowska University in Lublin

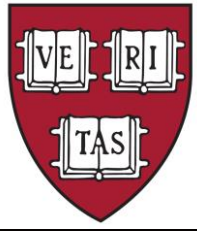
Obligation to participate in planetary defense action as part of international jus cogens

Dr. Anne-Sophie Martin

Postdoctoral Research Fellow

Sapienza University of Rome

Reacting to Near-Earth Object Impact: Exceptional Circumstances Justifying Non-Compliance with International law



Thank you for your attention

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