



Legal Analysis of the UN Space Debris Mitigation Guidelines
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Outline

- Historical Development of the UN Guidelines
- Content of the UN Guidelines
- Legal Status of the UN Guidelines
- Considerations regarding the Rule of Law
- Contribution to the Formation of Customary International Law
- Conclusion

Historical Development of the UN Guidelines

- 1993 Formal establishment of the IADC
- 1994 Space debris as formal agenda item of STSC
- 1999 STSC Technical Report on Space Debris (Rex Report)
- 2002 IADC Space Debris Mitigation Guidelines (updated 2007)
- 2004 STSC starts developing own set of mitigation guidelines, based *inter alia* upon:
 - use technical content of & not be more technically stringent than IADC guidelines
 - not be legally binding under international law; voluntary implementation, national mechanism
 - be a living document that could be updated regularly and that references IADC
- 2007 STSC, COPUOS, UN Space Debris Mitigation Guidelines
- 2009 LSC agenda: “*General exchange of information on national mechanisms relating to space debris mitigation measures*”

Content of the UN Guidelines

- Definition of Space Debris

“...as all man-made objects, including fragments and elements thereof, in Earth orbit or re-entering the atmosphere, that are non-functional.”

- Applicability

“...to mission planning and the operation of newly designed spacecraft and orbital stages and, if possible, to existing ones.”

- Scope

- UN Guidelines do not outlaw a certain *type* of space activity.
- UN Guidelines provide guidance on *how to conduct* space activities in principle in order to prevent or at least to minimize harmful by-products of space activities.

Content of the UN Guidelines (Scope)

- E.g. Guideline 1: Limit the debris released during normal operations

“Space systems should be designed not to release debris during normal operations.” = prevent the production of space debris even when undertaking space activities that are perfectly legal in general.

“If this is not feasible, the effect of any release of debris on the outer space environment should be minimized.” = if release cannot be prevented in its entirety the effects are to be minimized.
- UN Guidelines are not designed as a comprehensive approach and cure for the space debris issue

Legal Status of the UN Guidelines

- Non-binding

“The implementation of space debris mitigation measures is recommended...”

“Member States and international organizations should voluntarily take measures,...”

“They [UN Guidelines] are not legally binding under international law”.

- Technical

- developed within STSC
- reference to IADC guidelines and *“based on the technical content”*
- to be updated *“in light of new findings”* and research

Considerations regarding the Rule of Law

- Gradual disappearance of the rule of law in outer space?
 - First Phase (1950ies – 1979): International treaties
 - Second Phase (1980 – 1995): UN GA resolutions re: specific space activities
 - Third Phase (since 1995): UN GA resolutions on (re-)interpretation of treaties
 - Fourth Phase? Non-binding and technical “common understandings”?
- UN Guidelines as point of reference for the exercise of due diligence
 - Art. I, III, IX OST / Art. 3 ILC draft articles on prevention of transboundary harm
 - obligation to prevent and/or minimize risk to cause harm
 - Space debris internationally acknowledged as hazard
 - uncertainty about appropriate measures
 - UN Guidelines “*reflect the existing practices as developed by a number of national and international organizations*” (UN GA)
 - identification of some reference points for judging the States’ compliance

From “guidance” to “rules”?

- UN Guidelines’ contribution to the formation of customary international law
 - Transformation of UN / IADC guidelines into measurable and verifiable (albeit non-binding) ISO standards
 - “Voluntary“ national implementation: conviction to be bound by international law?
 - Deviation from customary rule harder to prove than from clear-cut treaty provision
- Operational framework for the complex issue of space debris requires (actively negotiated) clear and binding rules for maximum preventive and repressive effects

Conclusion

- Hazardous by-products of space activities need to be addressed in the community interest
→ international obligation to prevent and to minimize risks
- UN Guidelines have shed some light on the appropriate measures, but are limited in scope, clarity and legal status
- Characterization of UN Guidelines as weakening or strengthening the rule of law depends on whether or not they serve as stepping stone for an operational set of rules