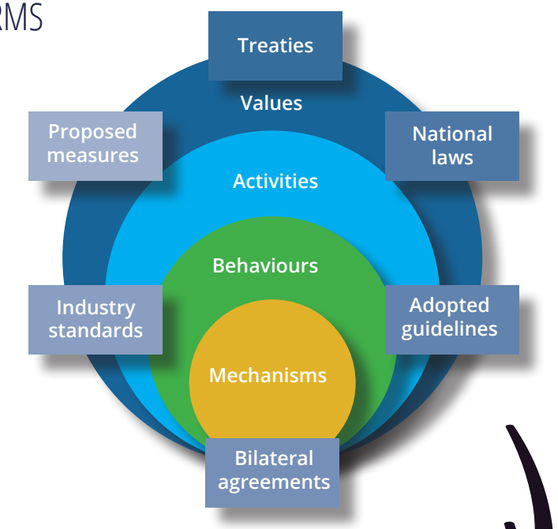
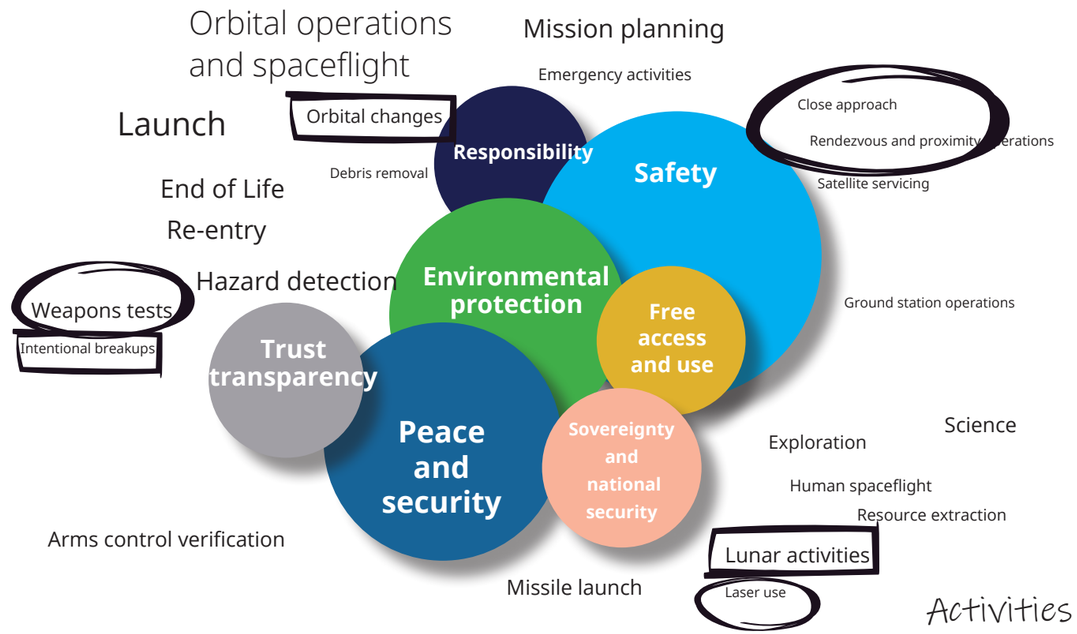
FROM SAFETY TO SECURITY: MAPPING THE NORMATIVE LANDSCAPE IN OUTER SPACE

SOURCES OF NORMS



EMBEDDED VALUES AND DOCUMENTED ACTIVITIES



Activities that experts are most concerned about. (Circled.)

PRESCRIBED BEHAVIOURS AND PRACTICES

Constraints

- Weapons of mass destruction
- National appropriation
- Intentional contamination
- Intentional destruction
- Harmful interference
- Interference with jurisdiction and control
- Restrain weapons testing and use of force

Communication

- Make capabilities known
- Clarification
- Consultation
- Disclosure
- Data dissemination
- Information exchange
- Maintain communications links
- Anomaly sharing/attribution
- Provide orbital information
- Publish national policies
- Status updates

Due regard

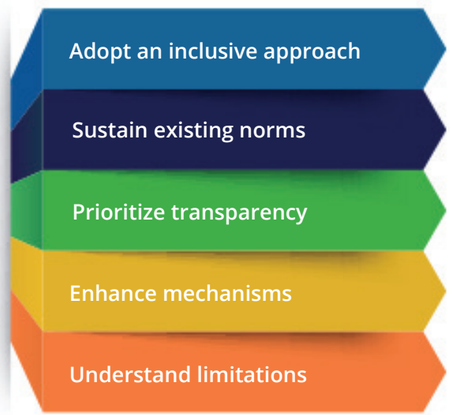
- Cooperation
- Coordination
- Notification
- Avoid interference
- Minimize collision risk
- Minimize debris
- Minimize health/safety risks
- Adequate distance between spacecraft
- Supervision/monitoring
- Tracking
- Warnings
- Minimize use
- Registration
- Risk assessment
- Spectrum coordination

Technical design

- Resiliency
- Compatibility
- Policies and procedures
- Identification
- Interoperability
- Trackability
- Command and control
- Standardization
- System security
- Training

This map is a visualization of the existing normative landscape in outer space. Created from detailed coding of 90 space governance documents and additional expert feedback from an online survey and global series of workshops, it identifies the prevailing values, documented activities, and prescribed behaviours that currently influence practices in space. It is intended to provide a solid foundation for the further elaboration of norms that ensure the safe conduct of security- and military-related activities in space.

EXPANDING SECURITY NORMS



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Created by Jessica West of Project Ploughshares and Gilles Doucet of Spectrum Space Security, with funding from the Canadian Department of National Defence MINDS Program (Mobilizing Insights in Defence and Security).

RECOMMENDATIONS

ADOPT AN INCLUSIVE APPROACH

To achieve wide acceptance and adherence, norms are best pursued through inclusive strategies that nurture and expand likemindedness among diverse actors, such as:

- Building on shared or core values, especially those linked to environmental sustainability and operational safety;
- Focusing on obligations and benefits that are shared by all parties;
- Emphasizing positive behaviours that make operators in outer space feel safe, secure, and confident in the intentions of others;
- Considering alternatives to concepts such as "responsible behaviour" to enable more inclusive and objective definitions.

SUSTAIN EXISTING NORMS

New norms should take advantage of the safety and sustainability practices and commitments that already exist by:

- Reinforcing and promoting existing governance agreements and practices;
- The consistent practice of existing norms, with leaders publicly identifying and validating such practices;
- The consistent, uniform encouragement of compliance, as well as fair and consistent calling out of violations of standards and norms.

ENHANCE TRANSPARENCY

To reduce operational risk and conflict escalation in space, the development of norms for military and security activities should prioritize transparency. Transparency can be enhanced through improved communications practices, including:

- Pre-notifications,
- Registration and disclosure,
- Information exchange,
- Data sharing,
- Consultations,
- Establishing direct lines of communication.

ADVANCE MECHANISMS

- New mechanisms should be created to enable safe and transparent practices by military space operators, particularly in support of communications practices noted above.
- Existing mechanisms, such as the Registration Convention, should be better utilized.

UNDERSTAND LIMITATIONS

Understanding that norms cannot by themselves produce collective security and strategic stability will point to critical next steps, including:

- Identifying behaviours that need special attention, including the testing, use and orbiting of destructive weapons, the production of debris, and interference with strategic and critical infrastructure;
- Focusing on formal restrictions that mitigate and set boundaries for intentional military activities in space.

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