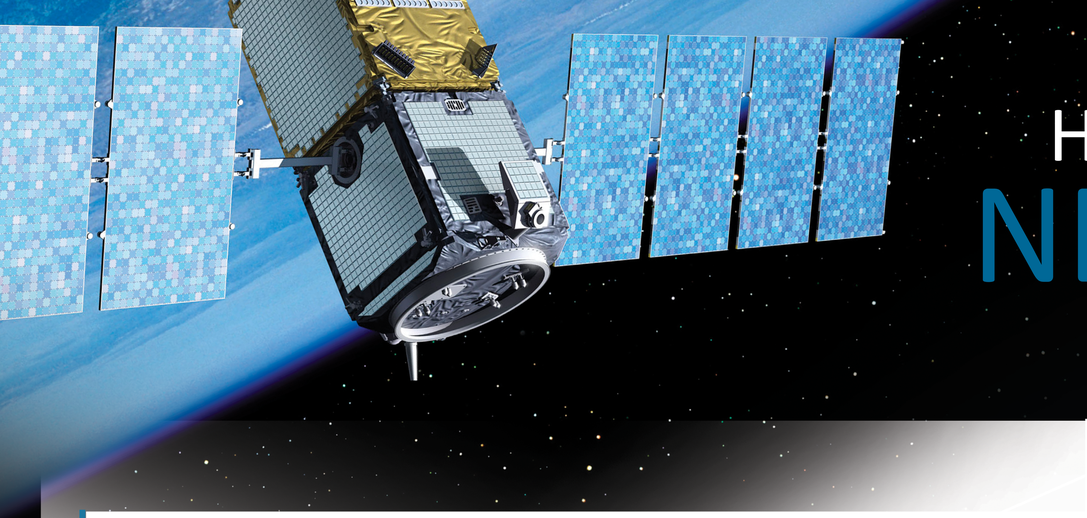


Brian Weeden – Technical Advisor | Ian Christensen—Project Manager

HANDBOOK FOR NEW ACTORS IN SPACE

SECURE WORLD FOUNDATION

www.swfound.org

WHAT IS THE HANDBOOK FOR NEW ACTORS IN SPACE?

As space participation broadens:

Societal Benefits Increase

- Increased innovation
- Growth in applications and services
- Lowering of costs

Challenges are Exacerbated

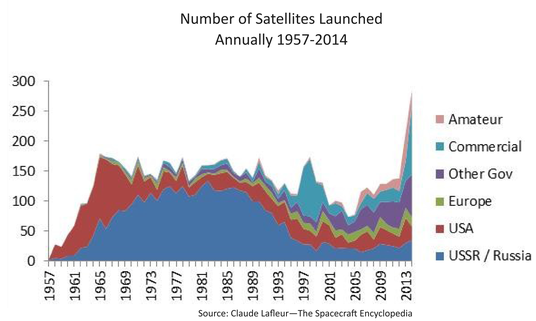
- Frequency interference
- Orbital debris
- On-orbit crowding
- Regulatory efficiency

In order to help maximize benefits and reduce challenges the Handbook offers:

- An overview of fundamental principles, norms, and best practices for safe and responsible operations in space
- Provision of only useful information, and concrete facts rather than prescriptive or aspirational views
- Linked information across business, legal, policy and technical domains
- Concrete examples of how existing actors have approached issues

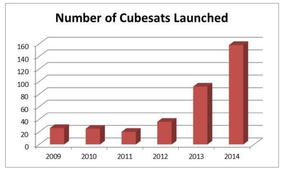
The goal of the Handbook is to assist new actors in space to continue to derive the many benefits space activities have to offer for the foreseeable future.

SPACE REGIME IS UNDERGOING MASSIVE CHANGE



Source: Claude Lafleur—The Spacecraft Encyclopedia

Diversification of actors and democratization of space community



Source: Spaceworks Enterprises

Dramatic increase in launches driven in part by emergence of smallsat-based business models

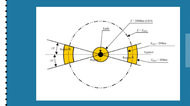
States Operating Satellites as of January 2015

Source: UCS Satellite Database

More than 70 States, commercial companies, and international organizations currently operate over1,200 satellites in Earth orbit

Example: Debris Mitigation Guidelines, Regulations, & Practices

Consensus-Built Guidelines Established



1) Defined Protected Orbital Regions
2) Guideline Mitigation Practices

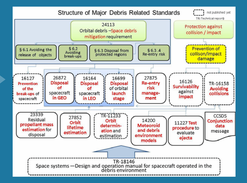
Endorsed Through the United Nations

Voluntary guidelines adopted by United Nations, for member states.

Formalized in International Industry Standards and National Polices

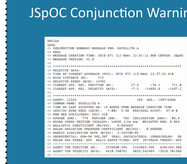
Elements adopted into ISO Standard 24113
Implemented at varying levels in national and agency licensing, regulatory, and contracting policies.

Practiced by Satellite Operators



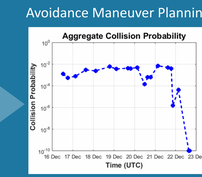
Example: Conjunction Assessment and Collision Avoidance

JSpOC Conjunction Warnings



Satellite Operator Risk Assessment

Avoidance Maneuver Planning



HOW CAN THE SMALLSAT COMMUNITY CONTRIBUTE?

SWF is developing the Handbook in an interactive manner with the space community.
By contributing your experiences you will help to ensure that all perspectives are represented.

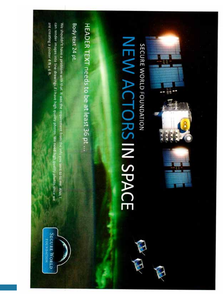
Share Your Experience

- Best Practices
- Lessons Learned
- Issues and Resources Encountered

Provide Feedback

- Suggest overlooked content
- Identify areas of improvement

JOIN US



TOPICS COVERED BY THE HANDBOOK

1. ***International Framework for Space Activities***
2. ***National Policy, Legal and Administrative Frameworks***
3. ***Best Practices for Responsible Space Operations***

Find out more by visiting our website: