

# The Space Security Index



“The Space Security Index continues to provide an objective ‘one-stop shopping’ resource for information related to international space activities and their potential consequences. It’s a must for every space research bookshelf.”

**Theresa Hitchens – Director, United Nations Institute for Disarmament Research**

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## Background

Space is the only global commons that borders every community on Earth. Space has become a new centre of social, economic, and military power. However, the dynamics of space security remain poorly understood. Space is a uniquely fragile environment and the resources of Earth’s orbital space are limited. It is not clear how we can best balance today’s competing civil, commercial, and military interests against the need for sustainable uses of space that will ensure its utility for future generations.

## Purpose

The purpose of the Space Security Index is to facilitate dialogue on space security challenges and potential responses. The annual report also provides a comprehensive pedagogical tool on the concept of space security to inform debate among stakeholders and policy-makers. Therefore, the Space Security Index provides facts and focus in an important debate that has become unnecessarily polarized.

The Space Security Index is the first and only annual, comprehensive, and integrated assessment of space security. Based on nine indicators of space security, it provides background information and in-depth analysis on key space security trends and developments. The annual assessment has two key components:

- A policy-neutral fact-base of trends and developments in space security based on primary, open-source research.
- An assessment of the status of space security based on a consultative process engaging a broad cross-section of space stakeholders through an online expert survey and a working group of space experts.

## Spacesecurity.org

Spacesecurity.org is a consortium of governmental, non-governmental, and academic organizations that produces the annual Space Security Index. The member organizations of Spacesecurity.org are: Secure World Foundation; Project Ploughshares; the Simons Foundation; Institute of Air and Space Law at McGill University; and the Space Generation Foundation. Spacesecurity.org also cooperates with the Department of Foreign Affairs and International Trade Canada. *The views expressed in the Space Security Index represent those of the experts engaged throughout the process and do not necessarily reflect the views of the Government of Canada or the other partner organizations of Spacesecurity.org.*

## Definition

Space security can be defined as *the secure and sustainable access to, and use of, space and freedom from space-based threats.* The Space Security Index assesses nine indicators of space security: the space environment; space situational awareness; space security laws, policies and doctrines; civil space programs and global utilities; commercial space; space support for terrestrial military operations; space systems protection; space systems negotiation; and space-based strike weapons.

[www.spacesecurity.org](http://www.spacesecurity.org)

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## Methodology

### 1. Research

The Space Security Index provides a comprehensive overview of eight indicators of space security. Spacesecurity.org staff develop an overview of space security including a description of each indicator and its impacts on space security, and an analysis of space security trends. Yearly developments are tracked, documented, and synthesized from open-source literature.

### 2. Survey

A broad range of experts and stakeholders from the civil, commercial, and military space sectors, as well as policy experts and officials, are invited to complete an online survey of their opinions and perceptions of space developments over the past year. Efforts are made to engage space actors in a manner that is broadly representative of the international space community. Briefing notes summarising the indicator descriptions, impacts, trends, and yearly space security developments are provided as supporting documentation. Respondents are asked to offer qualitative ratings along a set scale regarding the impact of developments in the different indicator areas on space security. Responses remain anonymous.

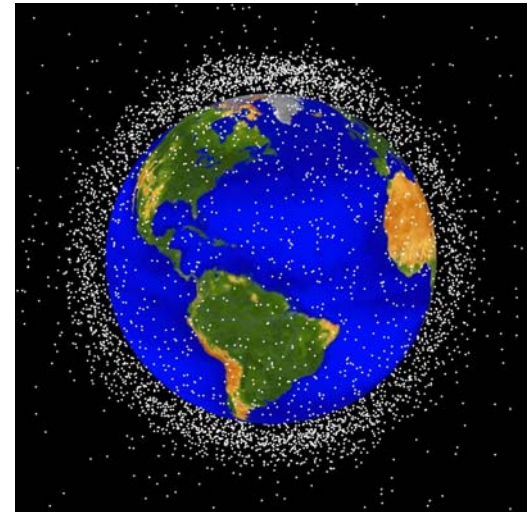
### 3. Space Security Working Group

The results from the survey are analyzed and integrated with the primary research in consultation with a Space Security Working Group. Informed by the briefing notes, the results of the space security survey, and their own expertise, participants of the Space Security Working Group are invited to provide their input and their assessment of the status of space security. The final net assessments of space security are based on the results of the space security survey and the Space Security Working Group survey. It is not the intent of the Space Security Index to provide a scientific measure of the status of space security, but rather to provide a broad overview of international perceptions of space security.

The Working Group is composed of international experts on civil, legal, commercial, and military space, who meet at the Institute of Air and Space Law at McGill University in Montreal.

### 4. Publication

Following the assessment of the Space Security Working Group, the Spacesecurity.org staff integrate the research, survey results, and Space Security Working Group assessments into a final comprehensive text. An Advisory Board is consulted to review all materials and to provide expert content. The annual Space Security Index report, as well as an executive summary of its findings, is made available at [www.spacesecurity.org](http://www.spacesecurity.org).



*Space debris in low Earth orbit*

“The benefits and advantages that space can provide for all mankind are becoming as ubiquitous as the air we breathe. For policy makers, for journalists, for technical professionals, and for those just interested in space, the Space Security Index is a unique resource. There is no more comprehensive and up-to-date source of information on developments in space, and the threats to space security, than the Space Security Index.”

- Hon. Philip E. Coyle, Senior Advisor, Center for Defense Information