

*International Cooperation and Competition
in Civilian Space Activities*

June 1985

NTIS order #PB87-136842



Recommended Citation:

International Cooperation and Competition in Civilian Space Activities (Washington, DC: U.S. Congress, Office of Technology Assessment, OTA-ISC-239, July 1985).

Library of Congress Catalog Card Number 84-601087

For sale by the Superintendent of Documents
U.S. Government Printing Office, Washington, DC 20402

Foreword

The nature of global space activities has changed radically over the last decade. No longer are the United States and the Soviet Union the only countries capable of placing satellites into Earth orbit or sending interplanetary probes into deep space. Europe and Japan now have substantial space programs and have developed commercially competitive space systems. Several newly industrialized countries are well along in building their own space programs. In addition, the U.S. private sector has recently expanded its interest and investment in space technology. As this report makes clear, these changes have strong policy implications for the U.S. Government space program and for the U.S. private sector.

This report presents the major findings of an assessment requested by the House Committee on Science and Technology and the Joint Economic Committee, on international cooperation and competition in civilian space activities. The United States still enjoys a strong competitive position in most space technologies and in space science. There continues to be broad support for a long-term public commitment to civilian space activities. But precisely because of our achievements—and those of other space-faring nations—the number of opportunities (and associated costs) that lie before us require a thoughtful articulation of space goals and objectives. * Such goals should reflect a broad public consensus, including, but not limited to, those with obvious stake holdings in the space program. Defining these goals maybe essential if the United States hopes to maintain its position of leadership at a reasonable cost. The newly appointed National Commission on Space, which OTA proposed as one option in an earlier report (*Civilian Space Policy and Applications*), could help to focus the national debate.

Maintaining a space program well integrated with other national objectives will also require attention to the quantity and quality of cooperative international space projects. This report makes clear that the United States must cooperate in space in order to stay competitive.

In the course of this assessment OTA completed two technical memoranda, prepared at the request of congressional committees. *UN/SPACE '82: A Context for Cooperation and Competition*, was requested by the House Committee on Science and Technology and the Joint Economic Committee. *Remote Sensing and the Private Sector: Issues for Discussion* was requested by the House Committee on Science and Technology and the House Committee on Government Operations. Some material in this report is discussed in more detail in these technical memoranda. A list of these and other related OTA reports appears on the next page.

In undertaking this assessment, OTA sought the contributions of a wide spectrum of knowledgeable and interested individuals. Some provided information, others reviewed drafts of the report. OTA gratefully acknowledges their contributions of time and intellectual effort.

* For an initial suggested list of such goals and objectives, see *Civilian Space Stations and the U.S. Future in Space* (Washington, DC: U.S. Congress, Office of Technology Assessment, OTA-STI-241, November 1984).



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Related OTA Reports

Civilian Space

- *Civilian Space Stations and the U.S. Future in Space.*
OTA-STI-241, November 1984. GPO stock #052 -O03-O0969-2.
- *Civilian Space Policy and Applications.*
OTA-STI-1 77, June 1982. GPO stock #052 -O03-O0878-5.
- *Radio frequency Use and Management: Impacts From the World Administrative Radio Conference of 1979.* OTA-CIT-1 63, January 1982. GPO stock #052 -O03-O0863-7.
- *Solar Power Satellite Systems and Issues.*
OTA-E-144, August 1981. NTIS order #PB 82-108846.

Technical Memoranda

- *U.S.-Soviet Cooperation in Space.* OTA-TM-STI-27 (in press).
- *Remote Sensing and the Private Sector: Issues for Discussion.*
OTA-TM-ISC-20, March 1984. GPO stock #052 -O03-O0945-5.
- ***Salyut: Soviet Steps Toward Permanent Human Presence in Space.***
OTA-TM-STI-14, December 1983. GPO stock #052 -O03-O0937-4.
- *UNISPACE '82: A Context for International Cooperation and Competition.*
OTA-TM-ISC-26, March 1983. GPO stock #052 -O03-O0962-5.
- *Space Science Research in the United States.*
OTA-TM-STI-19, September 1982. NTIS order #PB 83-166512.

Military Space

- "Anti-Satellite Weapons, Countermeasures, and Arms Control" (scheduled for publication summer 1985)
- "Ballistic Missile Defense Technologies" (scheduled for publication summer 1985).
- *Arms Control in Space—Workshop Proceedings.*
OTA-BP-ISC-28, May 1984. GPO stock #052 -O03-O0952-8.
- *Directed Energy Missile Defense in Space—Background Paper.*
OTA-BP-ISC-26, April 1984. GPO stock #052 -O03-O0948-0.

International Competitiveness

- *Commercial Biotechnology: An International Analysis.*
OTA-BA-218. January 1984. GPO stock #052-003-00939-1.
- *An Assessment of Maritime Trade and Technology.*
OTA-O-220, October 1983. GPO stock #052-003-00931-5.
- *U.S. Industrial Competitiveness—A Comparison of Steel, Electronics, and Automobiles.*
OTA-ISC-1 35, July 1981. NTIS order #PB 81-235749.
- *Technology and Steel Industry Competitiveness.*
OTA-M-1 22, June 1980. NTIS order #PB 80-208200.
- *International Competitiveness in Electronics.*
OTA-ISC-200. November 1983. GPO stock #052-003-00933-1.

NOTE: Reports are available through the US. Government Printing Office, Superintendent of Documents, Washington, DC 2040 783-3238; and the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703)487-4650.

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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by these advisory panel members. The views expressed in this OTA report, however, are the sole responsibility of the Office of Technology Assessment.

Workshop on UNISPACE '82 (Nov. 30, 1982)

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Workshop on Remote Sensing and the Private Sector (July 26, 1983)

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Executive Branch Meeting on Remote Sensing (August 18, 1983)

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Workshop on the International Trading Regime for Space-Related Equipment and Services (June 1, 1983)

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Acknowledgments

The following individuals contributed to this study in a variety of ways. OTA is grateful for their assistance:

James Ball	Peter Hambling	Geoffrey Pardoe
James Baker	Larry Heacock	Udo Pollvogt
Nadine Binger	Douglas Heydon	William Raney
William Bishop	Ken Hodgkins	Cad Rappaport
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Darrell Branscome	Daniel Kevin	Richard Rowberg
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Radford Byerly	Martin Kress	Glenn Sacra
Charles Chafer	Chester Lee	Morgan Sanborn
Barbara Cherry	Kenneth W. Leeson	Antonio Savoca
Stuart Chiron	George Li	Fred Sarriner
Lynne Cline	John Logdson	Carl Schmitt
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Raymond Crowell	T. Allen McArtor	Marcia Smith
Terry Dawson	Wally McClure	Marcellus Snow
James Dougherty	Mark McCarthy	Courtney Stadd
Fred Doyle	John McElroy	Louis Testardi
Robert Duffy	Thomas McNight	Shelby Tilford
Otho Eskin	Ahmed Meer	Hans Traumann
Steven Flasjer	Charles Miller	Christopher Vizas
Donna Fossum	Walter Morgan	Howard Warriner
Sybil Francis	James Morrison	Fred Weingarten
Roy Gamse	George Ojalehto	Hayden Wetzel
Marc Giget	Richard O'Rorke	Charles Wilk
Isaac Gillam	Jack Osland	Charles Williams
Robert Gosse	Scott Pace	Bud Youngren
Richard Halpern	Robert Palmer	Dennis Zimmerman

OTA wishes to acknowledge the contributions of the following organizations and Government agencies for their generous assistance:

Agency for International Development	National Aeronautics and Space Administration
American Telephone and Telegraph	National Oceanic and Atmospheric Administration
Arianespace, Inc.	National Space Development Agency of Japan
Communications Center	National Telecommunications and Information Administration
COMSAT Corp.	Orbital Sciences Corp.
Congressional Research Service	Orion Satellite Corp.
Embassy of the Federal Republic of Germany	Rockwell International
Embassy of France	SPOT Image Corp.
Embassy of Great Britain	Department of State
Export-Import Bank	Texas Instruments
Federal Communications Commission	TransSpace Carriers Inc.
General Accounting Office	United Nations Committee on the Peaceful Uses of Outer Space
General Dynamics	Walter Hinchman Associates, Inc.
GTE International Systems Corp.	World Bank
IN MARSAT	
INTELSAT	
International Trade Administration	
MCI Communications Corp.	