



REFERENCE GUIDE TO THE  
INTERNATIONAL  
SPACE STATION





REFERENCE GUIDE TO THE  
**INTERNATIONAL  
SPACE STATION**

Library of Congress Cataloging-in-Publication Data.

Kitmacher, Gary, 1955-, editor.

Reference Guide to the International Space Station  
Includes appendix and references.

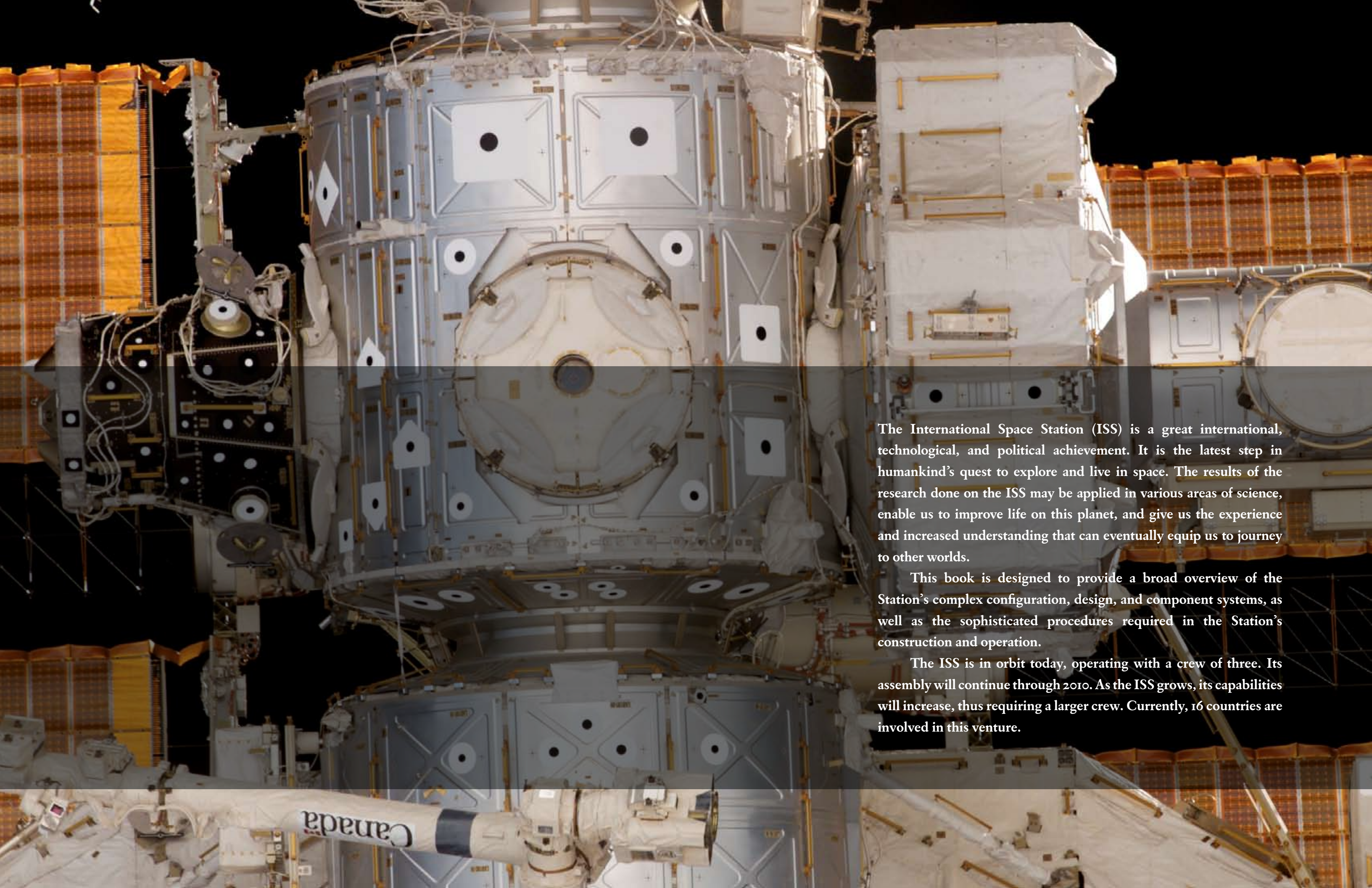
1. Astronautics. 2. Outer Space-Exploration. 3. Space Vehicles. 4. Space Stations.  
5. International Space Station Program. 6. United States. National Aeronautics and  
Space Administration.

August 2006

ISBN 0-9710327-2-6

National Aeronautics and Space Administration  
Washington, DC  
August 2006

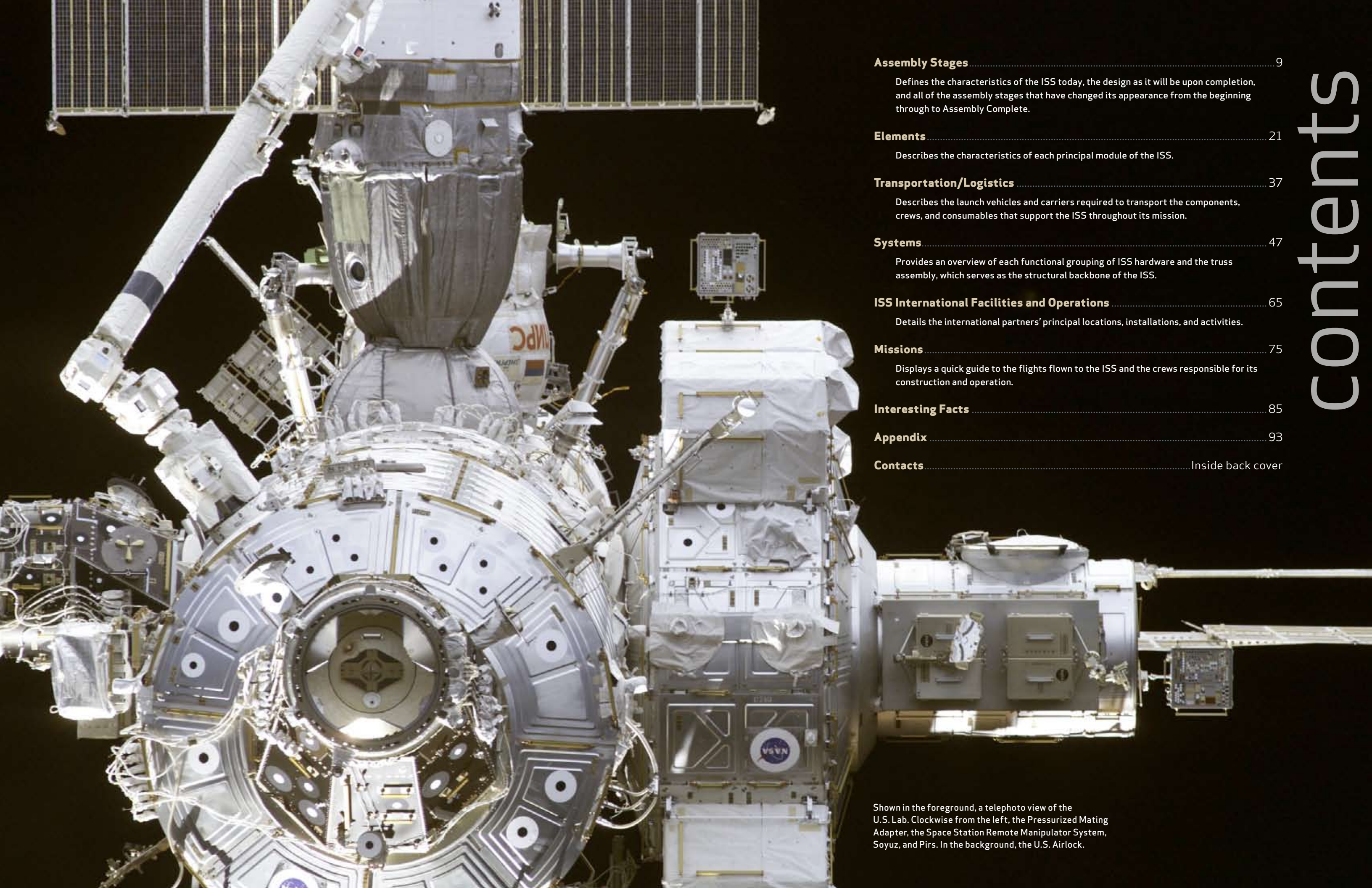
NASA SP-2006-557



The International Space Station (ISS) is a great international, technological, and political achievement. It is the latest step in humankind's quest to explore and live in space. The results of the research done on the ISS may be applied in various areas of science, enable us to improve life on this planet, and give us the experience and increased understanding that can eventually equip us to journey to other worlds.

This book is designed to provide a broad overview of the Station's complex configuration, design, and component systems, as well as the sophisticated procedures required in the Station's construction and operation.

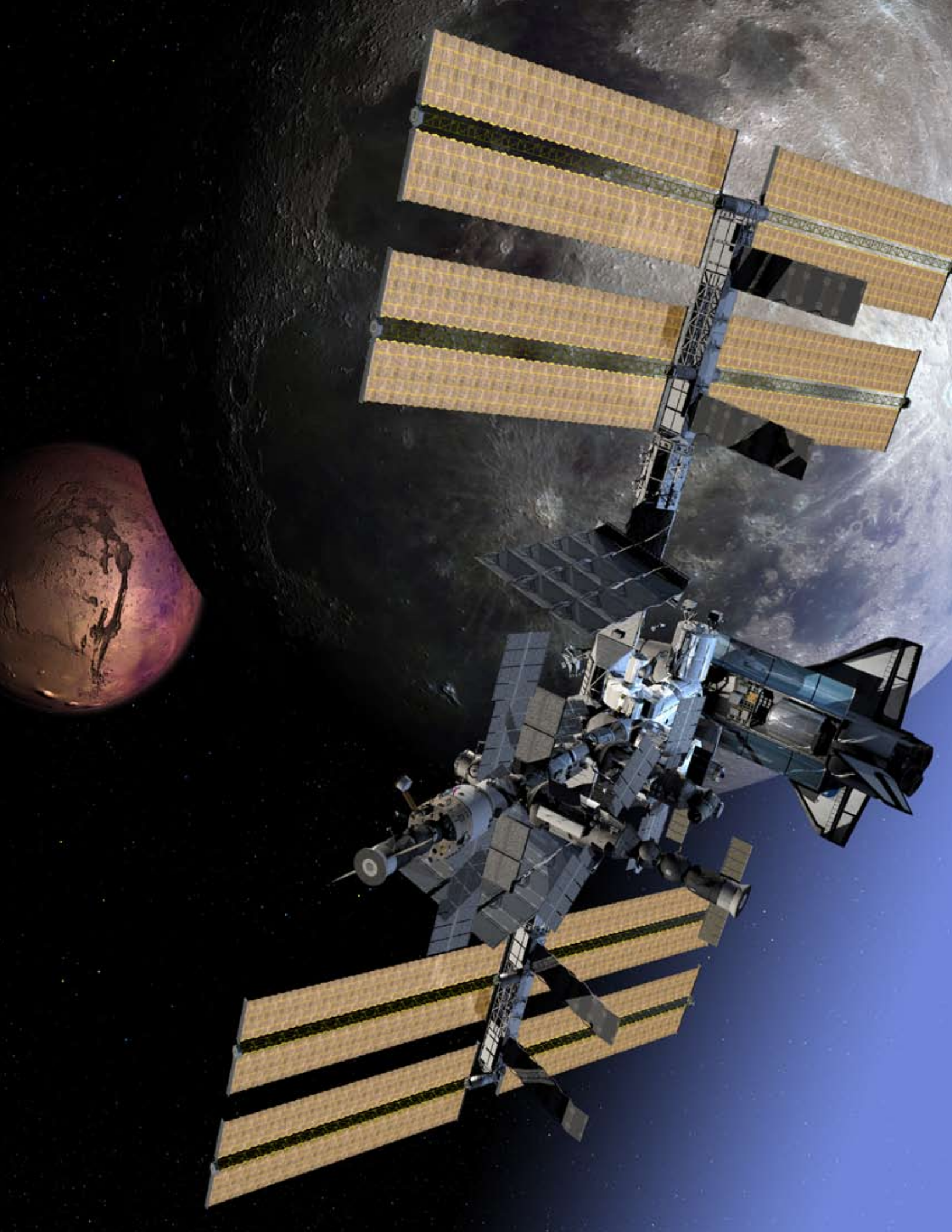
The ISS is in orbit today, operating with a crew of three. Its assembly will continue through 2010. As the ISS grows, its capabilities will increase, thus requiring a larger crew. Currently, 16 countries are involved in this venture.



# contents

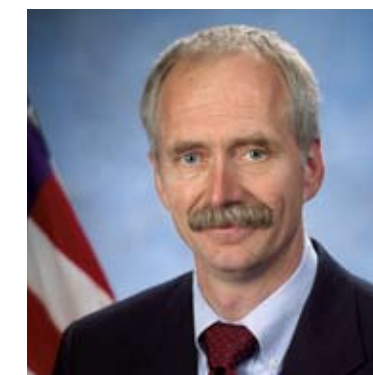
<b>Assembly Stages</b> .....	9
Defines the characteristics of the ISS today, the design as it will be upon completion, and all of the assembly stages that have changed its appearance from the beginning through to Assembly Complete.	
<b>Elements</b> .....	21
Describes the characteristics of each principal module of the ISS.	
<b>Transportation/Logistics</b> .....	37
Describes the launch vehicles and carriers required to transport the components, crews, and consumables that support the ISS throughout its mission.	
<b>Systems</b> .....	47
Provides an overview of each functional grouping of ISS hardware and the truss assembly, which serves as the structural backbone of the ISS.	
<b>ISS International Facilities and Operations</b> .....	65
Details the international partners' principal locations, installations, and activities.	
<b>Missions</b> .....	75
Displays a quick guide to the flights flown to the ISS and the crews responsible for its construction and operation.	
<b>Interesting Facts</b> .....	85
<b>Appendix</b> .....	93
<b>Contacts</b> .....	Inside back cover

Shown in the foreground, a telephoto view of the U.S. Lab. Clockwise from the left, the Pressurized Mating Adapter, the Space Station Remote Manipulator System, Soyuz, and Pirs. In the background, the U.S. Airlock.

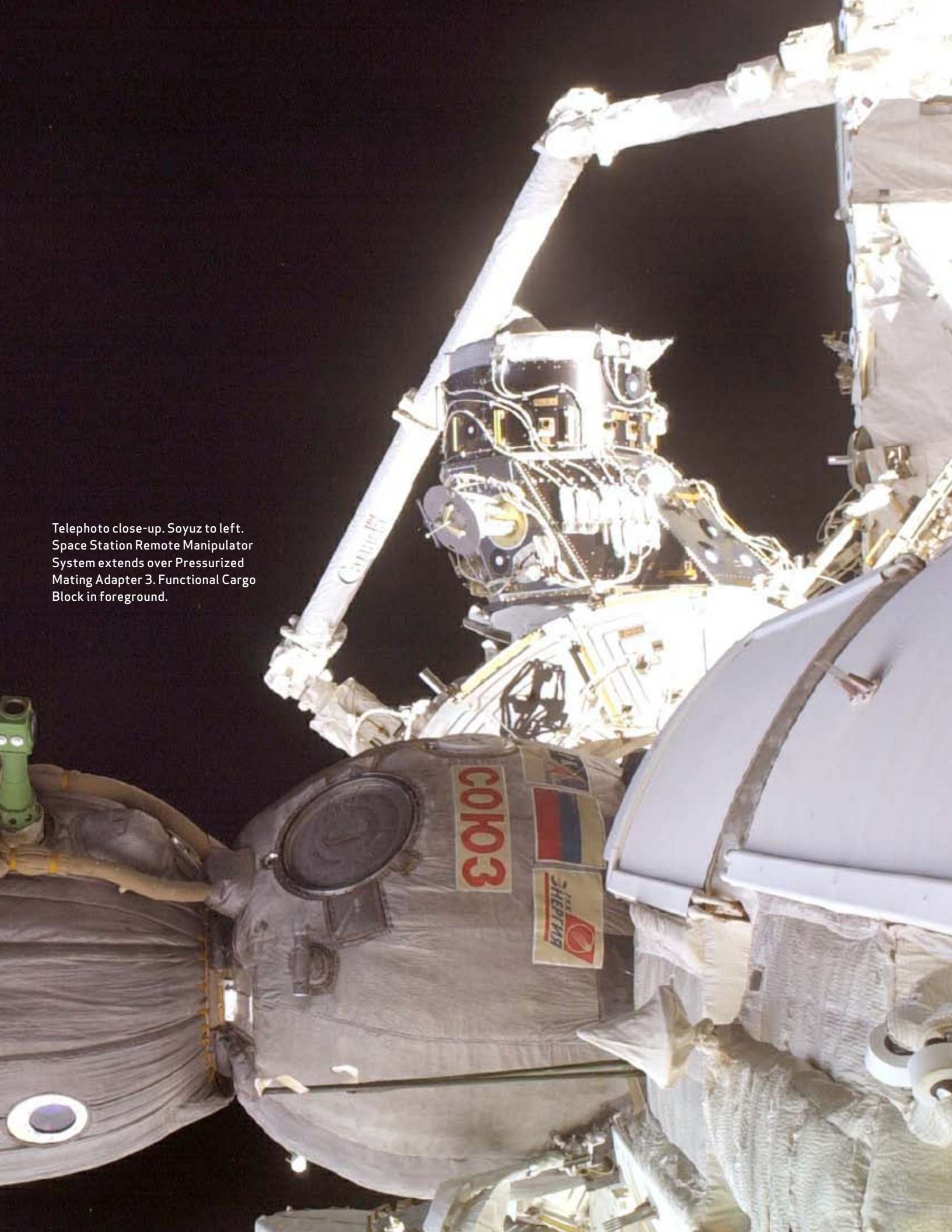


The International Space Station (ISS) affords a unique opportunity to serve as an engineering test bed for flight systems and operations critical to NASA's exploration mission. U.S. research on the ISS will concentrate on the long-term effects of space travel on humans and engineering development activities in support of exploration. This research will help enable human crews to venture through the increasingly longer missions and greater distances necessary to visit Earth's planetary neighbors.

The National Aeronautics and Space Administration (NASA) looks forward to working with our partners on ISS research and engineering development and operations that will help open up new pathways for future exploration and discovery beyond low-Earth orbit.



—*William H. Gerstenmaier*  
Associate Administrator  
NASA Space Operations Mission Directorate



Telephoto close-up. Soyuz to left. Space Station Remote Manipulator System extends over Pressurized Mating Adapter 3. Functional Cargo Block in foreground.