

# *Quo Vadis* Payload Safety?

**IAASS Conference**

**Rome, 2008**

*MaryBeth Schwartz and Michael Fodroci*

# *Quo Vadis* Payload Safety?

- **Agenda**
  - **Introduction**
  - **Origins**
  - **Evolution**
  - **The Present**
  - **The Future**
  - **Summary/Conclusions**

# *Quo Vadis* Payload Safety?

- **Introduction**
  - **Thirty Years of Payload Safety**
  - **The Road We've Traveled**
  - **The Road Ahead**



National Aeronautics and  
Space Administration

Washington, D.C.  
20546

JUN 16 1976

Reply to Attn of MQ

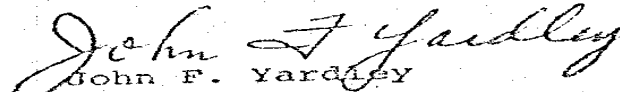
TO: Distribution

FROM: M/Associate Administrator for Space Flight

SUBJECT: Initial Issue of "Safety Policy and Requirements  
for Payloads Using the Space Transportation System"

The enclosed document, "Safety Policy and Requirements for Payloads Using the Space Transportation System," dated June 1976, contains the official set of basic safety requirements for all payloads using the Space Transportation System (STS). As you know, several drafts of this document were reviewed and coordinated extensively with your participation over the past two-to-three years. This initial release represents a consolidation of the many comments received while attempting to achieve simplicity and retain philosophical consistency.

Although it will be implemented via incorporation into the Payloads Accommodations Handbook of each of the major elements of the STS, I plan to keep this document under OSF STS-level configuration management. It will be revised from time to time on the basis of implementation experience as well as change suggestions from the payload community. As stated in the Foreword, questions and suggested changes should be referred to the Director, Reliability, Quality and Safety, Office of Space Flight, NASA Headquarters, Washington, D. C. 20546.

  
John F. Yardley

Enclosure

# *Quo Vadis* Payload Safety?

- **Origins**
  - **Skylab**
  - **The Space Shuttle**
  - **The Technical Requirements**
  - **The Process**



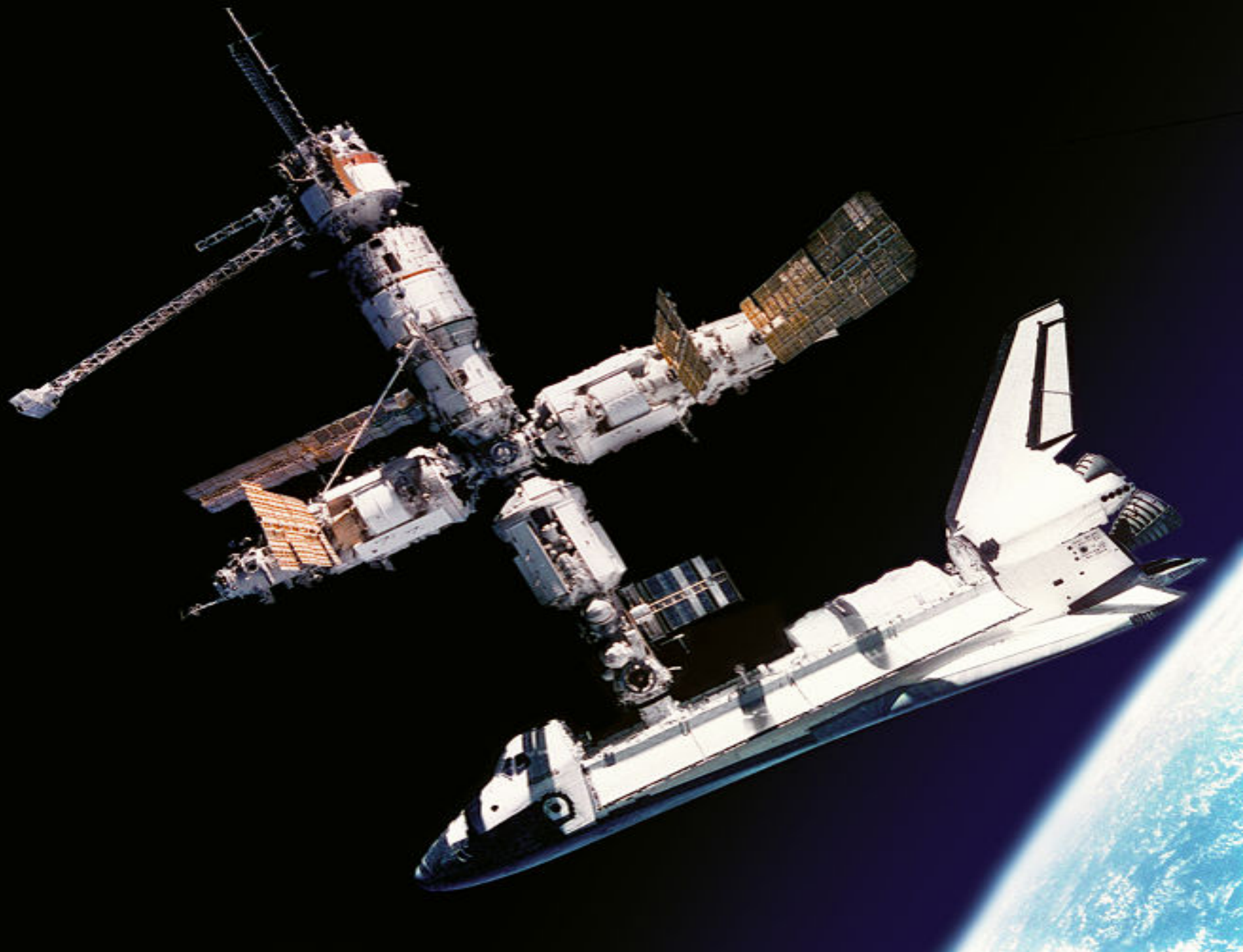




# *Quo Vadis* Payload Safety?

- Evolution
  - Interpretations
  - Streamlining/Combining Reviews
  - Basic, Intermediate, and Complex
  - Category 1 & 2 – The Shuttle/Mir Program
  - The ISS Addendum

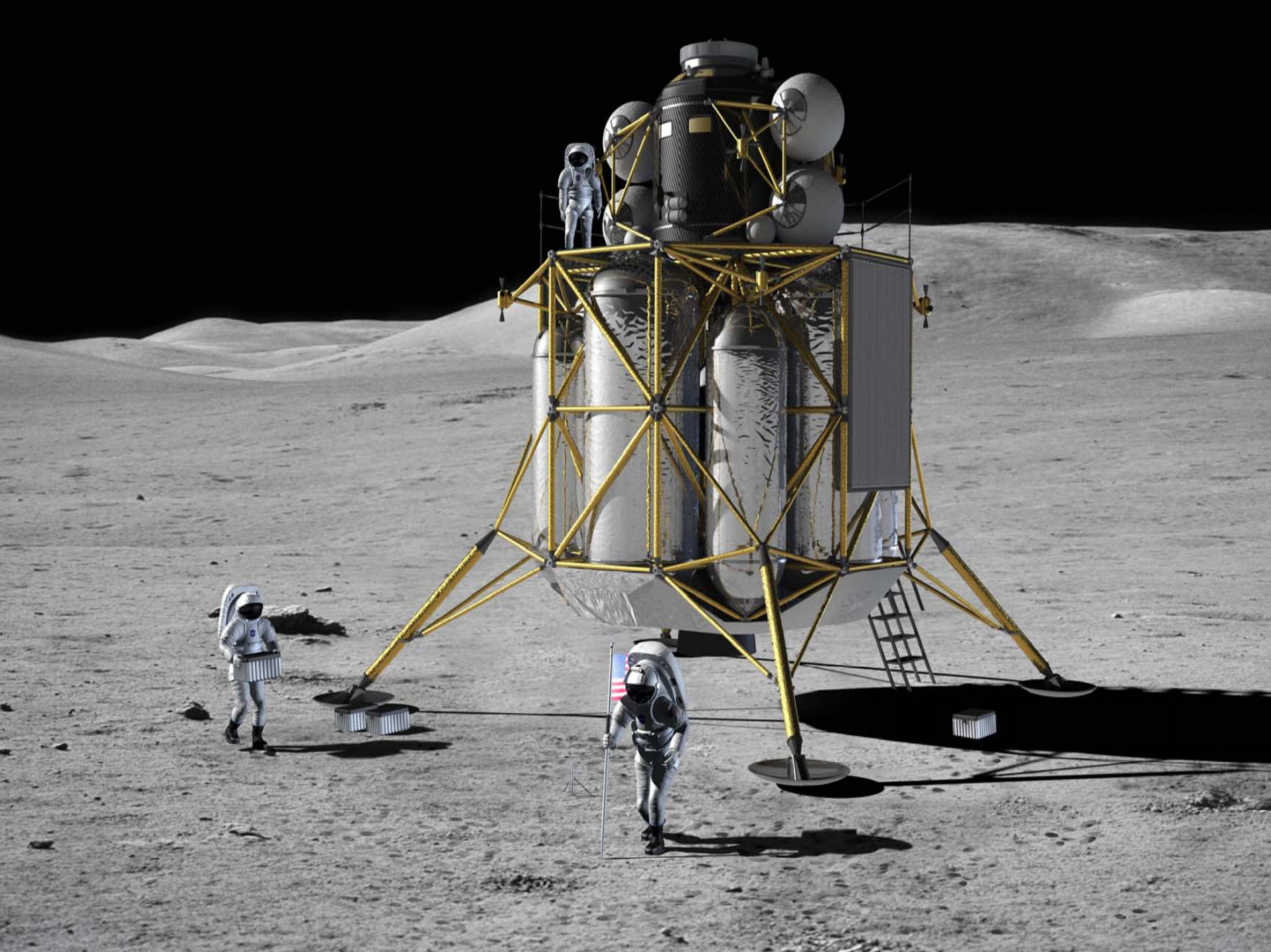




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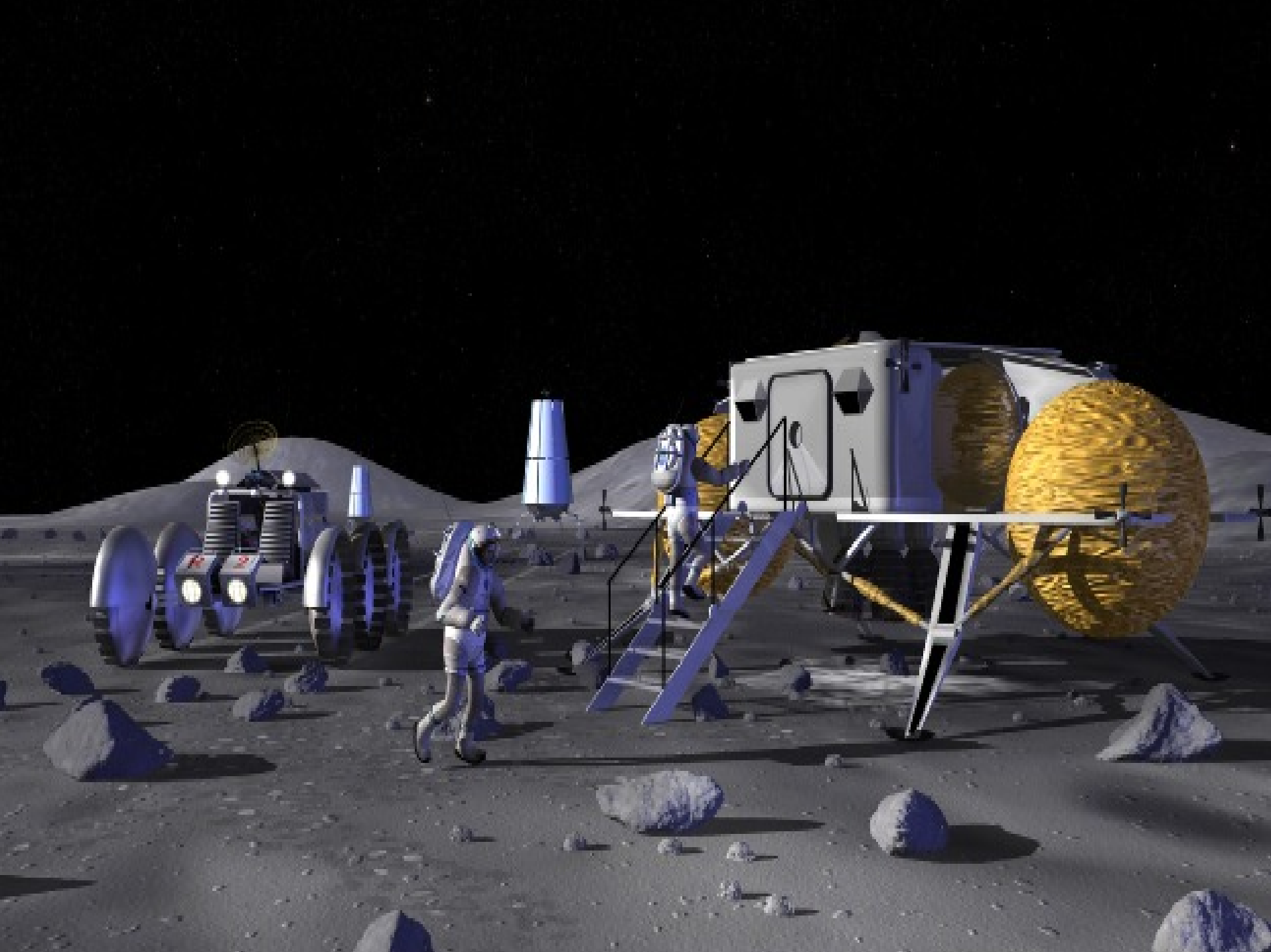
- The Present
  - The Shuttle
  - The International Space Station
  - Franchising, and the Challenge of Consistency
  - Export Control
  - The End of the Shuttle Program





# *Quo Vadis* Payload Safety?

- The Future – Two Paths
  - The International Space Station
  - Lunar Missions
    - Reliability
    - Fault Tolerance and Factors of Safety in a Mass Constrained Environment
    - Safety “Targets” vs. Fault Tolerance
    - Scientific Merit



# *Quo Vadis* Payload Safety?

- **Summary/Conclusions**