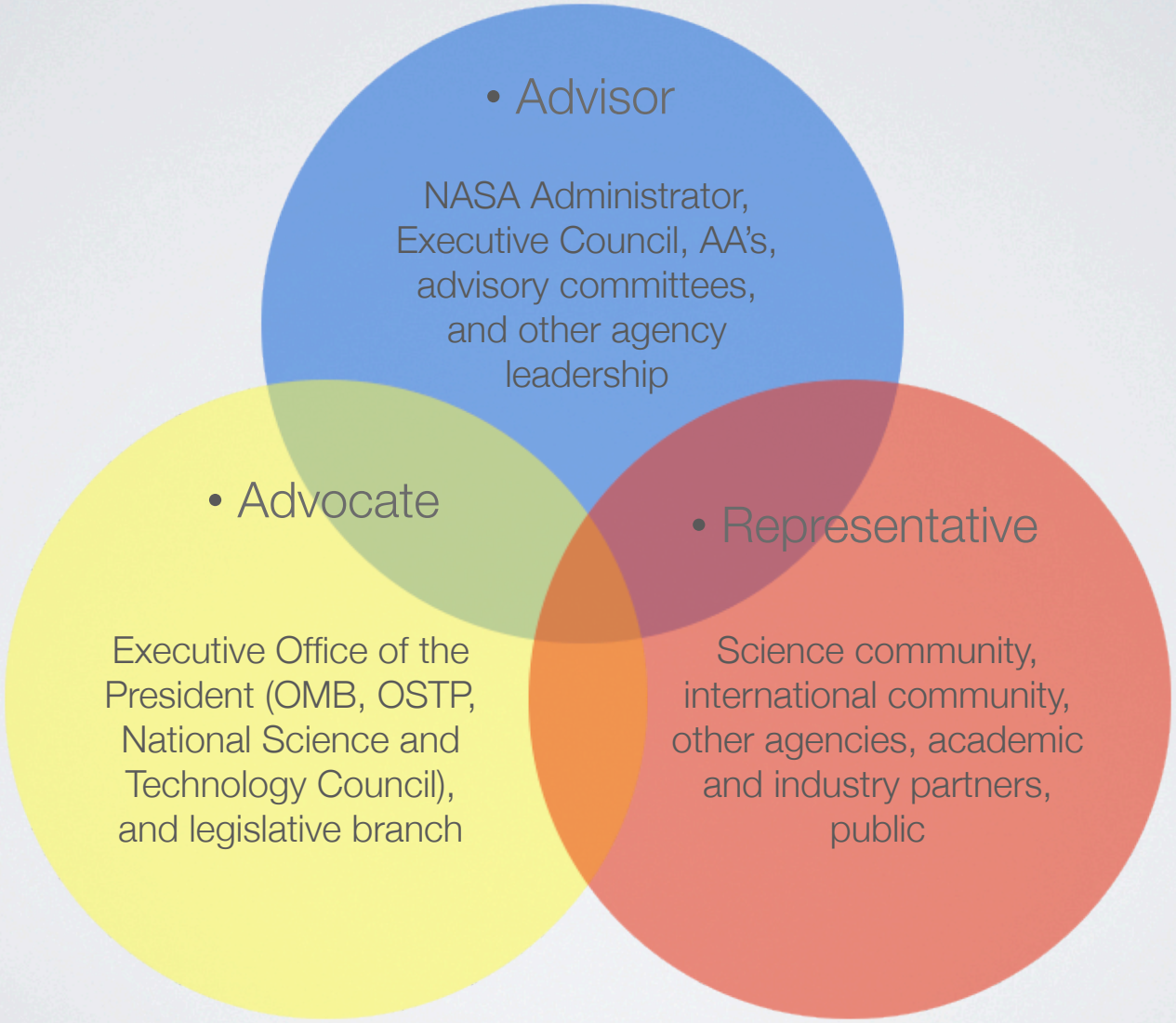
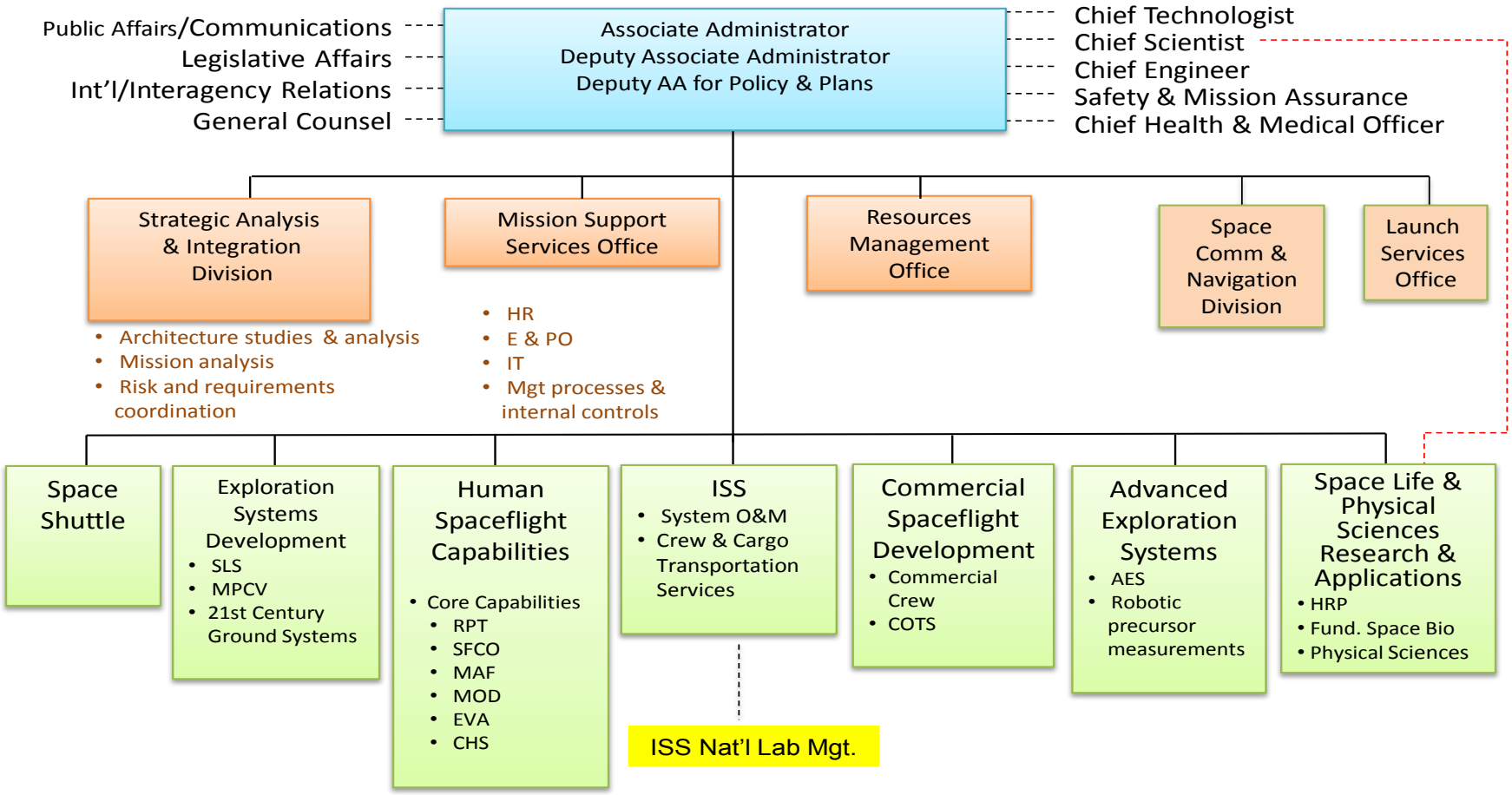
ISS National Laboratory and
The Center for the Advancement of Science in Space
Presentation to the NASA Advisory Council

Role of the Chief Scientist



Organizational Structure: Human Exploration and Operations Mission Directorate



Chronological Bibliography of Prior NASA Studies and Selected External References

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- *NASA Federal Laboratory Review*, prepared by the NASA Federal Laboratory Task Force, NAC, February 1995
- *An Orbital Research Institute for Science and Technology* Discussion Draft v 0.8, 11 April 1995
- *NASA Science Institutes Benchmarks,* Report of the NASA Science Institutes Team, 1995
- NASA Science Institute Plan, 1996
- *Reference Model -A Non-Governmental Organization for Space Station Utilization Management,* NASA internal report, 1998
- Institutional Arrangements for Space Station Research, NRC Report 1999
- *Options for Managing Space Station Utilization*, report prepared by Swales Aerospace, October, 1999
- *Economic Development of the International Space Station*, Spacebound 2000 Conference Paper by M. Uhran, 2000
- *International Space Station Operations Architecture Study*, CSC Final Report, 2000.
- Engineering Challenges to the Long-Term Operation of the International Space Station, NRC Report 2000

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- Review of NASA's Biomedical Research Program, NRC Report 2000
- *Science and Technology Research Directions for the International Space Station*, NASA Report, 2000.
- *Non-Governmental Organization Concept Development for Management of International Space Station Utilization*, Final Report of the NASA Study Team, June 2001
- *A Non-Government Organization to Manage Utilization of the International Space Station*, AIAA Conference paper by M. Uhran, 2001
- *Factors Affecting the Utilization of the International Space Station for Research in the Biological and Physical Sciences*, National Research Council Report, 2002
- *ISS NGO Response to Congress*, letter to Chairman Boehlert, Committee on Science, 2002
- *Commercial Market Outreach Plan for the International Space Station,* 2002
- *Role of the Space Station in Development of Space*, AIAA Conference Paper by M. Uhran, 2002
- *International Space Station Payload Operations and Concepts Architectural Assessment Study*, CSC Final Report, 2002
- *International Space Station Utilization Management Concept Development*, Final Report of the NASA *Draft Statement of Work for ISS Research Institute*, 2003
- Draft Statement of Work for ISS Research Institute, 2003

NASA Authorization Act of 2005

Sec. 507 National Laboratory Designation

(a) DESIGNATION.—To further the policy described in section 501(a), the United States segment of the ISS is hereby designated a national laboratory.

(b) MANAGEMENT.—

(1) PARTNERSHIPS.—The Administrator shall seek to increase the utilization of the ISS by other Federal entities and the private sector through partnerships, cost sharing agreements, and other arrangements that would supplement NASA funding of the ISS.

(2) CONTRACTING.—The Administrator may enter into a contract with a nongovernmental entity to operate the ISS national laboratory, subject to all applicable Federal laws and regulations.

NASA Authorization Act of 2010

SEC. 504. MANAGEMENT OF THE ISS NATIONAL LABORATORY.

(a) COOPERATIVE AGREEMENT WITH NOT-FOR PROFIT ENTITY

FOR MANAGEMENT OF NATIONAL LABORATORY.—

(1) IN GENERAL.—The Administrator shall provide initial financial assistance and enter into a cooperative agreement with an appropriate organization that is exempt from taxation under section 501(c)(3) of the Internal Revenue Code of 1986 to manage the activities of the ISS national laboratory in accordance with this section.

(2) QUALIFICATIONS.—The organization with which the Administrator enters into the cooperative agreement shall develop the capabilities to implement research and development projects utilizing the ISS national laboratory and to otherwise manage the activities of the ISS national laboratory.

(3) PROHIBITION ON OTHER ACTIVITIES.—The cooperative agreement shall require the organization entering into the agreement to engage exclusively in activities relating to the management of the ISS national laboratory and activities that promote its long term research and development mission as required by this section, without any other organizational objectives or responsibilities on behalf of the organization or any parent organization or other entity.

NASA Liaison

(b) NASA LIAISON.—
(1) DESIGNATION.—The Administrator shall designate an official or employee of the Space Operations Mission Directorate of NASA to act as liaison between NASA and the organization with which the Administrator enters into a cooperative agreement under subsection
(a) with regard to the management of the ISS national laboratory.

(2) CONSULTATION WITH LIAISON.—The cooperative agreement shall require the organization entering into the agreement to carry out its responsibilities under the agreement in cooperation and consultation with the official or employee designated under paragraph (1).

Why a Cooperative Agreement?

"The Federal Acquisition Regulations (FAR 35.003) provides that an "agency shall use a cooperative agreement" when the principal purpose of the relationship "is to transfer a thing of value to the State, local government, or other recipient to carry out a public purpose of support or stimulation authorized by law of the United States instead of acquiring (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government," and "substantial involvement is expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement." 31 U.S.C. § 6305.

Put differently, the use of a grant or cooperative agreement is appropriate if the principal purpose of the agreement is to provide assistance to the recipient to accomplish a public objective authorized by law. In contrast, if the federal agency's principal purpose is to acquire goods or services for the direct benefit or use of the federal government, then a procurement contract must be used."

Competitive Selection

- The award under this CAN initially funds the operation of an independent 501(c)(3) entity to manage non-NASA utilization of the ISS through the ISS NL. The NL Entity will be expected to capitalize on the unique venue of the ISS as a national resource to promote opportunities for advancing science and technology to other U.S. government agencies, university-based researchers and private firms for utilization of the ISS. These organizations will use the ISS as the nation's newest national laboratory to pursue basic and applied research in fields such as human health, energy, and the environment, as well as stimulate educational opportunities in Science, Technology, Engineering and Mathematics (STEM) for the next generation of U.S. scientists and engineers. During the second year, NASA anticipates expanding the NL Entity portfolio to include management for all or a portion of NASA-awarded ISS-based research grant activities. –
- Early in 2011, NASA released a cooperative agreement notice to solicit proposals, and CASIS was selected on July 13, 2011.

- See more at: http://www.iss-casis.org/