Space Diplomatic Efforts Update

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U.S. National Space Policy Goals

- **Expand international cooperation on mutually beneficial space activities to: broaden and extend the benefits of space; further the peaceful use of space; and enhance collection, and partnership in sharing, of space-derived information.**
- **Strengthen stability in space through: domestic and international measures to promote safe and responsible operations in space; improved information collection and sharing for space object collision avoidance; protection of critical space systems and supporting infrastructures, with special attention to the critical interdependence of space and information systems; and strengthening measures to mitigate orbital debris**
- **Increase assurance and resilience of mission-essential functions enabled by commercial, civil, scientific, and national security spacecraft and supporting infrastructure against disruption, degradation, and destruction, whether from environmental, mechanical, electronic, or hostile causes.**

Developing Transparency and Confidence Building Measures

- **Bilateral**
  - **Space security exchanges in diplomatic, military-to-military, and scientific channels**
  - **Close approach notifications**
- **Multilateral**
  - **European Union proposal for an international "Code of Conduct for Space Activities"**
  - **Forthcoming United Nations Group of Government Experts study of space TCBMs**

The United States will pursue bilateral and multilateral transparency and confidence-building measures to encourage responsible actions in, and the peaceful use of, space

- National Space Policy, June 2010

Preserving the Space Environment

- United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS)
  - Working group on long-term sustainability of space activities (LTSSA) now underway
    - Conducted as part of UN COPUOS' scientific and technical subcommittee
    - Chaired by Dr. Peter Martinez of South Africa
    - Terms of reference endorsed by UN COPUOS in June
    - Informal coordination meetings held in Cape Town, South Africa on October 5-7
  - Activities include expert group reviews of "best practice" guidelines in four areas:
    A. Sustainable space utilization supporting sustainable development on Earth
    B. Space debris, space operations and tools to support collaborative space situational awareness
    C. Space weather
    D. Regulatory regimes and guidance for actors in the space arena
- LTSSA working group will guilds on ongoing work in existing international organizations and bodies, including:
  - Inter-Agency Space Debris Coordination Committee
  - Consultative Committee for Space Data Systems
  - International Organization for Standardization

LTSSA Expert Group B – Debris, Operations and SSA Collaborative Tools

- **Space Debris**
  - **Measures to reduce the creation and proliferation of space debris**
  - **Technical developments and possibilities regarding space debris removal**
- **Space Operations**
  - **Conjunction assessment and collision avoidance processes and procedures**
  - **Pre-launch and maneuver notifications (including launch collision avoidance)**
  - **Rendezvous and proximity operations**
  - **Common standards, practices and guidelines**
- **Processes and procedures to support collaborative space situational awareness**
  - **Registries of operators and contact information**
  - **Collection, storage and dissemination of data on functional and non-functional space objects**
  - **Storage and exchange of operational information**
  - **Information-sharing procedures**

LTSSA Expert Group D – Regulatory Regimes

- Regulatory regimes
  - Adherence to existing treaties and principles on the peaceful uses of outer space
  - Review of the regulatory framework and the tools for the use and transfer of space technologies within international cooperation and international turnover of controlled space-related goods
  - National regulatory frameworks for space activities
- Guidance for actors in the space arena
  - Technical standards, established practices and the acquired experience for the successful development and operation of space systems throughout all the phases of the mission life cycle for all classes of space objects, including microsatellites and smaller satellites
  - Technical and legal capacity-building for developing countries

LTSSA Working Group Next Steps

- **UN Office of Outer Space Affairs has requested inputs on "best practice guidelines" for consideration by LTSSA expert groups**
  - **Requests sent to UN COPUOS Member States, intergovernmental organizations (e.g., ICAO, ITU) and designated international agencies and bodies**
  - **Inputs from "national" private sector organizations will be submitted via UN COPUOS Member States**
  - **Department of State will submit all U.S. Government and private sector inputs no later than January 15, 2012**
- **Inputs will be evaluated by expert groups in February 2012 in Vienna, Austria**
  - **U.S. participants to include private sector as well as USG experts**
- **Working group deliberations will continue through February 2013, with final results reported to UN COPUOS in June 2014**

Backups

U.S. National Space Policy Guidelines

- **International Cooperation**
  - Lead in the enhancement of security, stability, and responsible behavior in space;
  - Promote appropriate cost- and risk-sharing among participating nations in international partnerships
  - Augment U.S. capabilities by leveraging existing and planned space capabilities of allies and space partners
  - Potential areas for international cooperation...include…space surveillance for debris monitoring and awareness
- **Preserve the Space Environment**
  - Minimize debris and preserve the space environment for the responsible, peaceful, and safe use of all users
  - Develop, maintain, and use space situational awareness (SSA) information from commercial, civil, and national security sources to detect, identify, and attribute actions in space that are contrary to responsible use and the long-term sustainability of the space environment

Close Approach Notifications

- **U.S. Strategic Command's Joint Functional Component Command for Space (JFCC SPACE) provides notifications through its Joint Space Operations Center (JSpOC) at Vandenberg Air Force Base, California, to U.S. and international satellite operators**

- **JSpOC issues an average of 70 - 100 notifications per week via e-mail and other means**

- **Operators encouraged to provide satellite ephemeris data to potentially increase accuracy of collision risk, especially if satellite has recently maneuvered**