



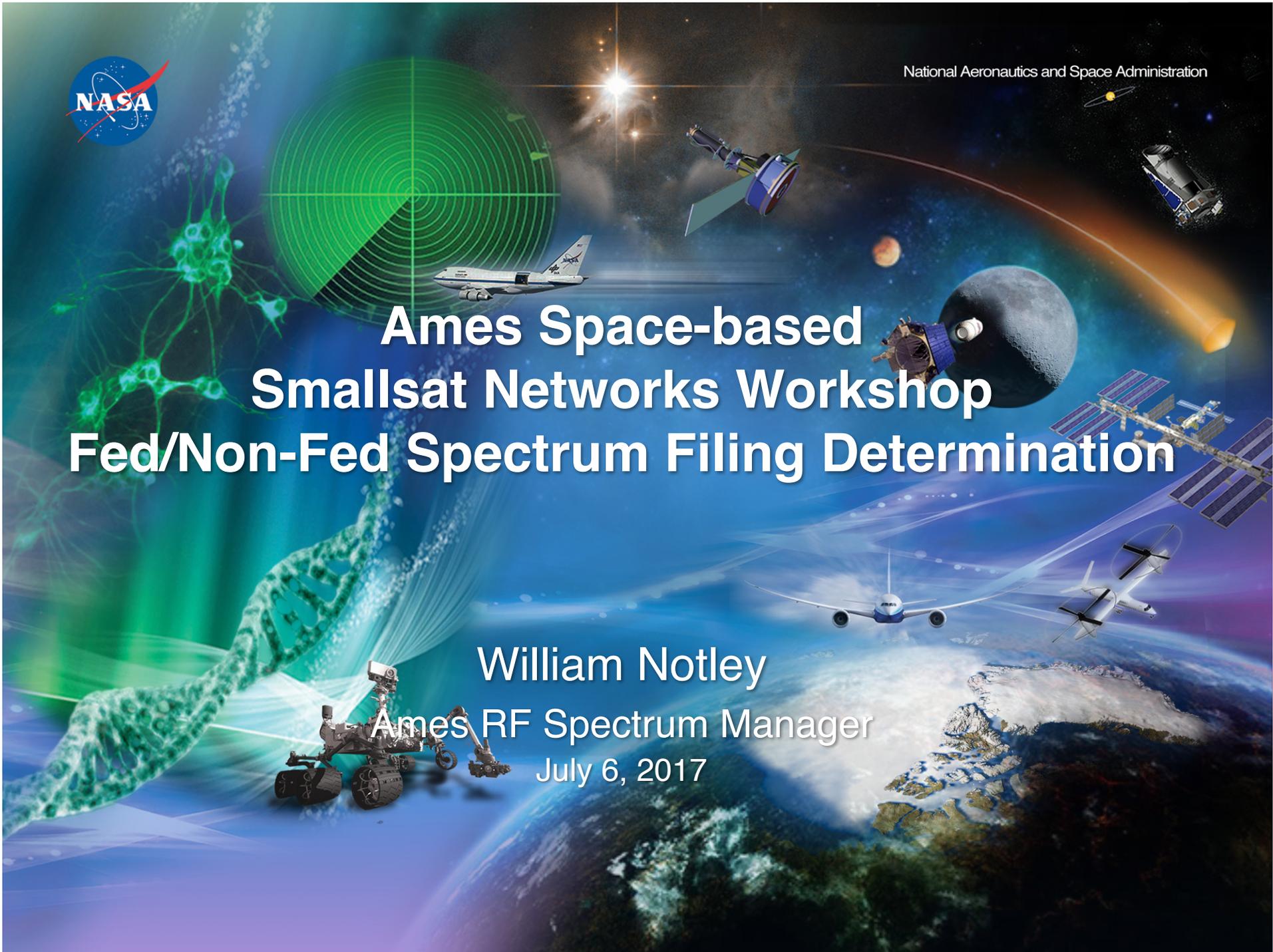
National Aeronautics and Space Administration

Ames Space-based Smallsat Networks Workshop Fed/Non-Fed Spectrum Filing Determination

William Notley

Ames RF Spectrum Manager

July 6, 2017





National Aeronautics and
Space Administration

Ames

Discovery • Innovations • Solutions

Spectrum Filing for NASA Owned and/or Contracted Spacecraft

To assist NASA in complying with federal spectrum laws and regulations, NASA contracts, grants, and other agreements, should provide clear language associated with spectrum regulatory requirements in such Agreements (e.g., cooperative research and development agreement (CRADA)).

Any NASA contract, grant, or other agreement that involves the use of the electromagnetic spectrum for transmission, reception, or both should explicitly indicate the following:

- Ownership of Equipment
- Operations and Effective Control of RF Payloads



National Aeronautics and
Space Administration



Spectrum Filing for NASA Owned and/or Contracted Spacecraft

Any NASA contract, grant, or other agreement should clearly state that spectrum authorization is required for all systems using the electromagnetic spectrum for transmission, reception, or both.

For NASA-funded but non-Federal designated systems, as noted by NPR 2570 (Section 3.5), NASA requires that the contractor or grantee obtain spectrum licensing through the appropriate FCC processes.

For NASA owned and/or RF payload controlled systems, NASA will pursue spectrum authorizations from the NTIA and work with other entities when separate FCC filings may also need to be submitted (e.g., for Iridium, Globalstar systems).



Spectrum Filing for NASA Owned and/or Contracted Spacecraft

Along with spectrum requirements, ownership and operations should be addressed in NASA contracts, grants, and other agreements that involve the use of the electromagnetic spectrum for transmission, reception, or both.



National Aeronautics and
Space Administration



Spectrum Filing for NASA Owned and/or Contracted Spacecraft

Contracts/Agreements: Ownership of Equipment

- **Government Owned:** Any experimental, developmental, or operational equipment that involves the use of the electromagnetic spectrum for transmission, reception, or both that is developed, procured, or furnished by the Government under a contract/agreement is designated as owned by NASA.
- **Non-Government Owned:** NASA does not claim ownership of any experimental, developmental, or operational equipment that involves the use of the electromagnetic spectrum for transmission, reception, or both that is developed or procured under a contract/agreement.



National Aeronautics and
Space Administration



Spectrum Filing for NASA Owned and/or Contracted Spacecraft

Contracts/Agreements: Ownership of Equipment in Agreements

Agreement should state whether the system, specifically the radio communication (transmitter, receiver) system, is owned by NASA (Federal Government) or not.

For NASA ownership, cases may include equipment developed by a contractor but claimed as NASA (Federal Government) property and government procured or developed systems provided to a contractor (i.e., Government Furnished Equipment (GFE)), but claimed as NASA property. NASA ownership may also include a sub-system that is included as a hosted payload on a non-NASA platform or spacecraft. Other cases may also exist.

For non-NASA (non-Federal government), cases may include systems developed under contract or systems procured by NASA but formally transferred to a non-NASA entity. Other cases may also exist.



National Aeronautics and
Space Administration



Spectrum Filing for NASA Owned and/or Contracted Spacecraft

Contracts/Agreements: Operations and Effective Control of RF Payloads in Agreements

Agreement should identify the organization that has effective control of the operations of the system specifically the radio communication system and the capability to conduct or cease transmissions.

For NASA (Federal) operations, the effective control may be exercised in several ways including, but not limited to, a NASA civil servant with direct control of the systems conducting radio communications or a contract directing a contractor conducting operations to follow instructions from NASA.

For non-NASA (non-Federal) operations, the contractor or other entity exercises sole authority, without direction from NASA (Federal), over the operations of the system specifically the radio communications transmissions.