

Annex A

Record Notes

A.1 Coordination Notes

C002--Subject to coordination with the Western Area Frequency Coordinator located at the Naval Air Warfare Center, Weapons Division, China Lake, CA, prior to use within a 322-kilometer radius of Pt. Mugu or in California south of Latitude 37 30' North.

C003--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Western Area Frequency Coordinator (WAFC) who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the WAFC as necessary to ensure compatibility with existing uses.

C004--Subject to coordination with the Eastern Area Frequency Coordinator located at Patrick AFB, FL, prior to use within the area bounded by 24 N 31 30'N and 77 W 83 W.

C005--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Eastern Area Frequency Coordinator, Patrick AFB, FL, who also coordinated it, as appropriate, with Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the Eastern AFC, Patrick AFB, FL, as necessary to ensure compatibility with existing uses.

C006--Subject to coordination with the Area Frequency Coordinator located at White Sands Missile Range, NM, prior to use in the State of New Mexico or other U.S. territory within a 240-kilometer radius of WSMR plus the area of Utah and Colorado that lies south of 41 North and between 108 and 111 West; Telephone 505-678-5417 or 3702, DSN: 258-5417 or 3702.

C007--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Area Frequency Coordinator, WSMR, NM, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC, WSMR, NM, as necessary to ensure compatibility with the existing uses.

C008--Subject to coordination with the DOD Area Frequency Coordinator located at Ft. Huachuca, AZ, prior to activation within the State of Arizona, Attn: SFIS-FAC-SH, Ft. Huachuca, AZ 85613-5000; Telephone 520-538-6423; FAX 520-538-8525; DSN 879-6423.

C009--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Area Frequency Coordinator, Ft. Huachuca, AZ, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC, Ft. Huachuca, as necessary to ensure compatibility with existing uses.

C010--Subject to coordination with the Gulf Area Frequency Coordinator located at Eglin AFB, FL, prior to use within the area bounded by 24 N 33 30'N and 83 W 90 W.

C011--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Gulf Area Frequency Coordinator, Eglin AFB, FL, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the Gulf AFC, Eglin AFB, FL, as necessary to ensure compatibility with existing uses.

C012--Subject to coordination with the Joint Frequency Management Office located at the Commander- in- Chief, Pacific Headquarters, Camp H. M. Smith, HI, prior to use with the area enclosed by 322-kilometer radius of Honolulu, HI.

C013--Subject to local coordination with Frequency Manager, Air Force Test Center (AFFTC), Edwards AFB, CA.

C015--Subject to prior coordination with Frequency Manager, 30th Space Wing, Vandenberg AFB, CA.

C016--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Air Force Spectrum Management Office, Fort Meade, MD, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the Air Force Spectrum Management Office, Fort Meade, MD, as necessary to ensure compatibility with existing uses.

C019--Subject to prior coordination with Army Frequency Management Office U.S. and Possessions (AFMO US&P), 2350 Stanley Road, Suite 32, JBSA Ft. Sam Houston, TX 78234-2720; Telephone 210-221-2050/0454.

C022--Subject to prior coordination with Frequency Manager, Army Missile Command, Huntsville, AL.

C024--This frequency assignment in one of the bands 1435-1525, and 2360-2395 MHz was coordinated prior to its authorization with AFMO US&P, Ft. Sam Houston, TX, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with AFMO US&P, Ft. Sam Houston, TX, as necessary to ensure compatibility with existing uses.

C027--Subject to prior coordination with DOE Area Frequency Coordinator, Las Vegas, NV, when used within the State of Nevada or within a 160-kilometer radius of Mercury or Tonopah, NV; Telephone 702-295-4766 or 0988, or 702-295-0311 (weekends, holidays, and off-duty hours).

C030--The Department of Commerce is designated as control for federal use of this frequency. Use under this assignment is subject to initial coordination with, and subsequent coordination as indicated by, Radio Frequency Coordinator S.I.G. Research Facilities Center, NOAA, Department of Commerce, P.O. Box 520197, Miami, FL 33152; Telephone 305-526-2936 (FTS 350-2936).

C052--Subject to local coordination with FCC Chief of Spectrum Coordination Branch to avoid interference to non-federal services.

C057-- Subject to prior coordination with NASA Spectrum Manager, Johnson Space Center, Houston, TX; Telephone 281-483-0124.

C060--Prior to operational use, this frequency assignment must be coordinated with and concurred by the commander of the military installation listed.

C061--Operational use of this frequency assignment has been coordinated with and concurred by the commander of the military installation listed.

C062--DOE use of this frequency for telemetering is subject to prior coordination at the national level with agencies having assignments in the same band and will be subject, at the time of such coordination, to adjustment to preclude harmful interference.

C065--Subject to coordination, prior to use, with the Department of the Interior, Bureau of Land Management, National Interagency Fire Center, Boise, ID; Telephone 208-387-5644.

C067--Subject to coordination with the Area Frequency Coordinator located at Nellis AFB, NV, prior to use in the states of Nevada, Utah west of 111 W and Idaho south of 44 N.

C068--This frequency assignment in one of the bands 1435-1525, and 2360-2395 MHz was coordinated prior to authorization with the Area Frequency Coordinator, Nellis AFB, NV, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC as necessary to ensure compatibility with existing uses.

C069-- This frequency assignment for a GOES DCP uplink is registered with the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) office of National Environmental Satellite Data Information Service (NESDIS) as outlined in 8.3.7 Coordination of Geostationary Operational Environmental Satellite Terrestrial Data Collection Platforms (DCP)

C073--Subject to prior coordination with NASA Spectrum Manager, Wallops Flight Facility, Wallops Island, VA; Telephone 757-824-1623.

C074--Operational activities should be coordinated with NASA Spectrum Manager responsible for JPL/Goldstone Programs. Mail: 4800 Oak Grove Drive, Mail Stop 303-404, Pasadena, CA 91109; Telephone (FTS) 8-792-0068 or (commercial) 818-354-0068.

C075--This assignment has been coordinated with the Hydrology Coordinator in accordance with Section 8.3.6.

C076--This assignment has been coordinated with the Electromagnetic Spectrum Manager, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230; E-mail: esm@nsf.gov, in accordance with Section 8.3.7, for the band 1660-1670 MHz, or Section 8.3.19 of the NTIA Manual.

C078--The domestic fixed aspects of this assignment have been coordinated with NTIA in accordance with Section 8.2.11 of the NTIA Manual.

C081--This assignment is for a station in the National Radio Quiet Zone. Successful coordination has been affected in accordance with Section 8.3.9 of the NTIA Manual.

C085--Subject to prior coordination with Army Frequency Coordinator, Military District of Washington, Attn: ASNK-OPB, Fort Lesley J. McNair, Washington, DC 20319-5050; Telephone 202-475-2554 or 2486, DSN 335-2554 or 2486.

C086--This frequency assignment in one of the bands 1435-1525 and 2360-2395 MHz was coordinated prior to authorization with the Mid-Atlantic Area Frequency Coordinator, Patuxent River, MD, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC as necessary to ensure compatibility with existing uses.

C088--Prior to use, this frequency assignment must be scheduled with the Post Frequency Manager, Aberdeen Proving Ground, MD, Telephone 410-278-7591; DSN 298-7591.

C089--A new frequency assignment in an Aeronautical Advisory Group (AAG) (see Section 1.3.2) designated frequency band or in one of the bands 1215-1390, 2700-2900, 9000-9200 MHz (see Section 8.3.16), or a technical modification to an existing frequency assignment as defined by changes to fields described in Section 9.16.1, was coordinated with the FAA prior to submission to NTIA or Federal Communications Commission. Use of the frequency or band under the authority of this assignment is subject to further coordination with the FAA and possible modification if found necessary to ensure compatibility between all users.

C090--The frequency assignment in the 5091-5150 MHz for Aeronautical Mobile Telemetry (AMT) has been coordinated with the FAA prior to submission to NTIA or Federal Communications Commission, and the Aerospace & Flight Test Radio Coordinating Council. It is in accordance with US 111, and the channelization and power flux density (PFD) limits meets WRC-15 Resolution 418 and FAA requirements.

C093--Subject to coordination with the Area Frequency Coordinator located at the Atlantic Fleet Weapons Training Facility, Roosevelt Roads, Puerto Rico, prior to use within the area 370 kilometers of Headquarters Building, Atlantic Fleet Weapons Training Facility, Roosevelt Roads, Puerto Rico.

C094--Subject to coordination with the Area Frequency Coordinator located at the Naval Air Warfare Center Aircraft Division, Patuxent River, MD, prior to use within the area enclosed by 320-kilometer radius of Headquarters Building, Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

C095--The non-military agency allotted primary use of this frequency, or which shares primary allotment status with AGA, has agreed neither Record Notes PO74 nor P076 are required for this assignment.

A.2 Emission Notes

E023--Voice transmission is authorized for test and maintenance only.

E028--Lower sideband transmission. The carrier is higher than the assigned frequency shown by one half of the indicated bandwidth.¹

E029--Upper sideband transmission. The carrier is lower than the assigned frequency shown by one half of the indicated bandwidth.¹

E030--Lower sideband greater. The suppressed carrier is higher than the assigned frequency shown by 1.5 kHz.²

E031--Upper sideband greater. The suppressed carrier is lower than the assigned frequency shown by 1.5 kHz.²

E032--Lower sideband greater. The suppressed carrier is higher than the assigned frequency shown by .5 kHz.²

E033--Upper sideband greater. The suppressed carrier is lower than the assigned frequency shown by .5 kHz.²

E035--Lower sideband transmission.¹

E036--Upper sideband transmission.¹

E037--Full-carrier SSB emission (3KH3E) shall be used except (1) when it is known that the receiving station is capable of receiving suppressed-carrier emission (3KJ3E) and (2) upon request of any station using the same carrier frequency (Ref: FCC 87.67b).

E038--When a single sideband emission is used from the various emissions shown on this HF assignment, the carrier frequency will be set to place the center of intelligence at the assigned frequency.

E039--The authorized emission bandwidth shall be so located within the band that it does not extend beyond the upper or lower limits of the authorized band shown in the *FRB entry of circuit remarks. If a portion(s) of the authorized band is to be excluded (*FBE) the authorized emission bandwidth must not extend into any portion(s) of the excluded band(s).

¹ Applies to SSB transmission.

² Applies to two or more independent sideband channels.

A.3 Limitation Notes

L2--Restricted to (daytime, nighttime, or indicated hours of operation.) Wherever used herein the term daytime means from two hours after local sunrise until two hours before local sunset. The term nighttime only means from two hours prior to local sunset until two hours after local sunrise at (a) specified point(s). Local time at transmitter is applicable unless otherwise specified.

L3--For communication with _____ stations only.

L012--To be used only in an emergency jeopardizing life, public safety, or important property under conditions calling for immediate communication where other means of communication do not exist or are temporarily disrupted or inadequate. To ensure that radio equipment for emergency use is maintained in satisfactory operating condition, testing on such frequencies is permitted, provided that insofar as practicable, transmitters shall be tested with a non-radiating load and the test use of a radiating antenna held to a minimum and provided further that such testing shall be restricted to test message traffic and shall not include operator training.

L113--L012 FX

L116--L2 daytime

L121--L2 daytime Hawaii and westward

L125--L2 local sunrise to local sunset

L131--L2 nighttime

L171--L3 Agriculture

L180--L3 Coast Guard

L182--L3 Interior

L187--L3 Military

L188--L3 Military aircraft or aircraft authorized for military use

L190--L3 Navy

L192--L3 non-federal

L195--L3 non-federal coast stations

L197--L3 non-federal public correspondence

L199--L3 non-federal ships

L203--L3 U.S. Army Engineers

L282--This assignment is for "back-up" use only when regular channels are either temporarily disrupted or inadequate.

L283--Limited to communications in or near a port, or in locks or waterways, between coast stations and ship stations, or between ship stations, in which messages are restricted to those related to the operational handling, the movement and the safety of ships, and, in emergency, to the safety of persons. Messages which are of a public correspondence nature shall be excluded.

L308--L3 Commerce

L318--Authority under this assignment is limited to temporary periods and locations for telemetry of seismic data.

L330--This assignment is limited to communications with non-federal ships for the exchange of traffic dealing with safety of life or property when other means of communication are not practicable.

L341--Limited to operations conducted in accordance with Bridge-to-Bridge portion of Section 8.2.29 of the NTIA Manual.

L347--L2 2330-2230 GMT

L350--Limited to use from November 15 to April 1.

L355--Limited to ground transmissions only.

L357--This band assignment is authorized only for air/ground frequency assignment in the AAG/MAG bands (118-137 MHz and those frequencies utilized by the FAA for air traffic control in the 225-328.6 and 335.4-400 MHz band) and is for "back-up" use only when regular channels are either temporarily disrupted or inadequate. Actual frequencies will be listed in Agency Remarks.

L358--L2 1300-2200 GMT.

A.4 Minute Notes

Do NOT enter minute notes “M” in the NTS field. “M” notes are to be entered on an *NTS line in the CIRCUIT REMARKS field (see Section 9.8.2, paragraph 39k).

M001--A note concerning this assignment is recorded in the minutes of the FAS meeting at which the application was approved. The source of the note is identified in the CIRCUIT REMARKS field (*NTS).

M002--This assignment was coordinated with IRAC or NTIA, and/or is subject to the conditions stated in the letter, the IRAC Document, the FAS Docket, or the FCC Regulation referenced in the CIRCUIT REMARKS field (*NTS).

M003--Subject to coordination prior to activation and, as appropriate, possible scheduling with the activity(ies) or station(s) listed in the CIRCUIT REMARKS field (*NTS).

M004--Subject to coordination prior to activation and, as appropriate, possible scheduling with the activity(ies) listed in the CIRCUIT REMARKS field (*NTS) when used within interference range of such activity(ies) or station(s).

M006--Subject to coordination prior to activation with the National Weather Service Meteorologist-In-Charge at the location(s) listed in the CIRCUIT REMARKS field (*NTS).

M007--Subject to notification of activation to the agency or activity listed in the CIRCUIT REMARKS field (*NTS).

M008--Operations under the authority of this assignment are subject to immediate adjustment, including cessation, if they result in harmful interference to the operations listed in the CIRCUIT REMARKS field (*NTS).

M009--Operations under the authority of this assignment a) are on a noninterference basis to the operations of the agency listed in the CIRCUIT REMARKS field (*NTS) on the same or adjacent channel and b) no protection can be afforded by that agency.

M010--This assignment was agreed to on a nonrenewable basis by the agency identified in the CIRCUIT REMARKS field (*NTS).

M011--Limited to the non-broadcast hours of and subject to coordination prior to activation with the station(s) listed in the CIRCUIT REMARKS field (*NTS).

M013--Subject to prior coordination with and concurrence by the organization/official listed in the CIRCUIT REMARKS field (*NTS) and to temporary cessation when required for marine environmental operations.

M014--During transmission, aircraft shall not exceed the altitude listed in the CIRCUIT REMARKS field (*NTS).

M015--The system using this assignment was reviewed by the SPS in accordance with Chapter 10 and the assignment is being made subject to conditions stated in the IRAC and SPS documents referenced in the CIRCUIT REMARKS field (*NTS).

M017--This non-federal space station assignment is made with the understanding that protection cannot be guaranteed to reception of the non-federal earth station(s) identified in the CIRCUIT REMARKS field (*NTS) due to the operation of existing transmitting earth stations and/or federal fixed stations.

M018--When a frequency application has been pre-coordinated between two agencies prior to the application being submitted to the FAS use this CIRCUIT REMARKS field (*NTS) to indicate agency, person, date and limitations/reference. (optional)

A.5 Priority Notes

P032--Noninterference basis

P074--Not to preclude expansion and adjustment of operations within the band 162.0 to 174.0 MHz by non-military federal agencies.

P076--Not to preclude expansion and adjustment of operations within the band 406.1 to 420.0 MHz by non-military federal agencies.

P077--This assignment supports a transportable fixed application, and as such, the antennas used may not fully comply with the fixed antenna performance standards specified in Section 5.3.3.3 Antenna Standards of the NTIA Manual. Every effort to comply with manual standards will be employed as new technology, system upgrades and/or mission requirements allow. This assignment will operate in accordance with SPS certification guidance.

A.6 Special Notes

S012--This operation does not include operator qualification training, but is a periodic operation of a communications system manned by fully qualified operators who are military reservists or affiliates. Except in emergencies, this frequency assignment will not be used as a means for passing traffic that in the absence of this authorization would require delivery by other means.

S015--Remote control

S017--This assignment is for the training of personnel in the technique and operational aspects of the electronic equipment.

S032--Common simplex channel for emergency and distress communications only. Available to all stations operating in or with aeronautical services.

S034--Disaster communications

S035--Distress, safety and calling

S038--FAC operation simultaneous with RLL

S041--For calibrating direction finders

S043--For emergency use at scene of air sea rescue

S047--For transmission of hydrologic and meteorological data

S048--For transmission of hydrologic data

S059--Radio direction finding

S063--Search and rescue communications

S067--Subject to Department to the Interior, Bureau of Indian Affairs net control

S068--Subject to immediate shutdown as needs of service may dictate

S070--Subject to immediate cancellation upon notice from FCC

S085--Training and testing operations

S120--Intermittent equipment tests

S139--Transmissions on this frequency will be discontinued upon receipt of notification to the effect that harmful interference is being caused to the international broadcasting service.

S141--This U.S. Government record is outside of the US&P and therefore does not fall within the jurisdiction of the NTIA and IRAC/FAS. This record is incorporated into the Government Master File for spectrum management, analysis and information purposes and does not constitute NTIA authority to transmit.

S142--Drone Control

S144--This assignment is not in complete conformity with the National Table of Frequency Allocations. Those operations that are conducted under the non-conforming portions of this assignment are on a secondary basis to operations conducted under assignments that are in conformity with the National Table of Frequency Allocations.

S145--This frequency is subject to adjustment upon notice from the military.

S147--These frequencies are used for a very short time only during actual nuclear test or dry runs prior to actual test. Such use of frequencies will be on a secondary basis subject to the avoidance of harmful interference to all operations established in accordance with international allocations applicable to these frequencies and to all other operations regularly authorized within the United States and Possessions on specific frequencies within these bands.

S148--This is an assignment for domestic service use in providing instantaneous transmission of vital emergency, operational command and alerting traffic of such importance as to affect the immediate survival and defense of the Nation. Circuits utilizing this frequency will be maintained in an operational status at all times, with on-the-air test transmissions to ensure the highest degree of readiness. This assignment requires protection commensurate with the importance of the communications for which the circuit is intended.

S149--Any use of this assignment that is not at a transient location or that is for a period exceeding 15 days shall be notified to the FAS.

S150--This assignment is for a frequency that has been allotted for the primary use of another agency or for all government agencies (AGA); or, the emission bandwidth overlaps a frequency or frequencies allotted for primary use by another agency or all government agencies (AGA). If the frequency is allotted to another agency, the operations on this frequency must be moved to a properly allotted frequency, unless the agency to which the frequency is allotted agrees to the continued use of their allotted frequency. If the frequency is allotted for AGA and there are available frequencies allotted to the agency for its primary use, this operation should be moved to a frequency allotted primarily to the agency. The transition from this frequency in the 406.1-420 MHz band is in accordance with the provisions outlined in section 4.3.9 of the NTIA Manual.

S151--This assignment must be narrowbanded in accordance with either Section 4.3.7, 4.3.9, or 5.3.5.2 of the NTIA Manual.

S154--Scene of disaster frequency.

S155--For interception and retransmission of television signals.

S157--Non-federal service

S159--U.S. Government short-distance low-power service

S160--This assignment has been made pursuant to Section 7.12 of the NTIA Manual and has been coordinated in accordance with Section 8.3.3.

S164--This assignment is not in complete conformity with the National Table of Frequency Allocations. Nevertheless, in the national interest, it is on an equal basis with assignments that are in conformity with the National Table of Frequency Allocations.

S165--This assignment has been made pursuant to Section 7.5.2 of the NTIA Manual for communication with non-federal stations in the maritime mobile service.

S170--Authorized additionally in tactical and training operations when employing single sideband equipment with 3KH3E, 4KJ7B, 4KJ9W emissions for use with peak envelope powers not to exceed 2000 watts. In such operations the following additional conditions are applicable. All necessary emissions under the several modes of operation, including reduced carriers, shall be within kHz of the listed frequency. If harmful interference is caused to authorized operations, the power of this operation will be reduced to the mean power shown for this listing. In the determination of particular listed frequencies and associated carrier frequencies to meet individual tactical needs, due consideration will be given, particularly when utilizing powers in excess of the powers normally authorized on this frequency, to the avoidance of harmful interference to radio services authorized on the same or adjacent frequencies. With respect to the conduct of peacetime training operations, such use of the frequency is on a non-interference basis to the authorized operations of other agencies.

S171--Authorized additionally in tactical and training operations when employing single sideband equipment with 3KH3E, 4KJ7B, 4KJ9W emissions for use with peak envelope powers not to exceed 400 watts. In such operations the following additional conditions are applicable. All necessary emissions under the several modes of operation, including reduced carriers, shall be within kHz of the listed frequency. If harmful interference is caused to authorized operations, the power of this operation will be reduced to the mean power shown for this listing. In the determination of particular listed frequencies and associated carrier frequencies to meet individual tactical needs, due consideration will be given, particularly when utilizing powers in excess of the powers normally authorized on this frequency, to the avoidance of harmful interference to radio services authorized on the same or adjacent frequencies. With respect to the conduct of peacetime training operations, such use of the frequency is on a non-interference basis to the authorized operations of other agencies.

S179--Power shown is for emergencies only. Normal power is 4 kW or less.

S181--This assignment was authorized pursuant to Public Law 87-795.

S185--Secondary service. Maximum number of transmitters authorized: 10

S186--Power shown is for intermittent or emergency use. Normal power is 20 kW.

S189--Tactical and/or training operations

S195--Safety Communications

S196--This assignment is for range safety (command destruct/flight termination) in the band 406.1-420 MHz and is authorized in accordance with Section 8.2.54 of the NTIA Manual with an expiration date not to exceed December 31, 2014.

S199--Navy operations authorized by assignments bearing this note shall not cause harmful interference to those non-federal operations existing at the time of authorization. The Navy agrees to make such adjustments of its group of high frequency coast telegraph assignments bearing this note as may be necessary to accommodate necessary expansion or adjustment of the non-federal coast telegraph service.

S200--JCS communication circuit

S205--Civil defense network

S206--This assignment is for an operation for which other telecommunication facilities do not exist, are inadequate, or are impracticable of installation, and for which the use of frequencies above 30 MHz is not practicable. This note applies to FX or AX station classes only.

S208--This assignment is for the domestic haul of overseas traffic in transit or destined for the United States, for an operation where technical and operational requirements dictate such use. The domestic radio haul is a segment of the overall overseas radio system.

S211--50 kW mean power used during emergency or unusually poor propagation conditions. 10 kW mean power used during normal conditions. 2.5 kW mean power used during unusually good propagation conditions.

S219--Power shown is for emergency use. Normal power is 3 kW.

S227--Power shown is for emergency use. Normal power is 1.5 kW.

S233--This assignment is part of a frequency pool, and, with Department of State approval, it may be used by foreign embassies that are authorized the use of other frequency assignments under Public Law 87-795.

S242--The NASA Unified S-band system operates in the 2270-2290 MHz portion of the 2200-2290 MHz space telemetering band on a shared basis. This system will be utilized in space missions of extended duration. In certain geographical areas agencies conducting telemetering operations on the shared frequencies in the 2270-2290 MHz band may be requested by NASA to adjust such operations as necessary to support the space mission involved.

S264--This assignment will not be used except in the event that full-scale atmospheric nuclear testing is resumed, and it is further subject to prior coordination with PACOM.

S267--Required for use in emergency areas when required to make initial contact with RACES units. Also, for communications with RACES stations on matters requiring coordination.

S279--This listing represents a use of a laser(s) for telecommunication purposes, and it is entered in the Government Master File (GMF) for information.

S286--The Coast Guard agrees to make such adjustments in its coast telegraph operations as necessary to provide an accommodation for non-federal coast radiotelegraph operations anticipated by the designation of this frequency in Part 81, FCC Rules.

S288--This frequency assignment is to support the National Command Authority. Circuits utilizing this frequency will be maintained in operational status at all times.

S291--Operations are subject to compliance with FCC Rules and Regulations Part 87, subpart c. Advisory service shall be given to any private aircraft upon request. The use of this frequency shall not be a deterrent to the establishment of a non-federal advisory station in this area. Operations on this frequency shall cease upon the establishment of non-federal facilities or upon notice of harmful interference thereto.

S292--Not to be a bar to complete operational implementation of common system aids to air navigation.

S296--Not to preclude assignment of this frequency to other agencies at specific locations.

S297--This assignment is part of the Wide-area Multi-user Land Mobile Justice Wireless Network certified by NTIA in IRAC Doc. 31594. The provisions of paragraphs 3 through 5 of Section 8.2.48A of the NTIA Manual, except for the provisions of Paragraph 3 of that Section that require each agency to conduct requirements analysis of need and to conduct an analysis of alternatives to operating their own system, are waived for this assignment.

S298--Subject to Department of the Interior, U.S. Fish and Wildlife Service net control.

S299--Power shown is into a buried vertical dipole. ERP is approximately 1 kW.

S300--This assignment in the 162 to 174 MHz band supports the Federal Wildlife Telemetry program managed by the Department of the Interior's U.S. Fish and Wildlife Service. It is authorized on a non-interference basis and will be used for short-term periods at unspecified locations throughout the United States and possessions.

S301--Operations under the authority of this assignment a) are not protected from harmful interference which may be caused by authorized stations operating in accordance with the National Table of Frequency Allocations and b) are subject to immediate adjustment, including cessation, if they result in harmful interference to authorized stations operating in accordance with that table.

S302--Subject to the understanding that equipment will not be developed for operational use in this band.

S303--Subject to the understanding that there is not intended operational use of this equipment within USP.

S319--Federal Government use of frequencies in the 4940-4990 MHz band will be on a non interference basis to any non-federal operations and shall not hinder the implementation of any non-federal operations.

S321--This assignment is for planning purposes not to exceed 3 years (see Section 9.6.5). The Note will be deleted after the assignment has been activated or this assignment will be deleted after specific locations have been notified.

S322--Stations established under the authority of this assignment shall conform to its technical particulars and shall be notified, as specified in Section 9.1.3 of the NTIA Manual, for inclusion in the list of Frequency Assignment to Federal Radio Stations.

S327--Marine environmental protection command/control/surveillance operations. Authorized additionally for other maritime mobile operations when not required for marine environmental purposes.

S328--This assignment is not planned for renewal. It has been replaced by another assignment.

S330--The equipment nomenclature or appropriate equipment coding is to be provided within six months after activation of the authorized stations.

S334--Subject to Department of the Interior, Bureau of Land Management net control.

S335--This telemetry assignment is on a non-interference, non-protected basis as concerns assignments in the aeronautical mobile service.

S340--To be used in support of DOE scientific missions with protected status for short periods of time during actual operations. Such use will require coordination between the DOD and DOE and will be on a scheduled basis.

S341--Subject to the continued applicability of note P074, this WSMR assignment is exempt from the requirement to be converted to a frequency listed in Section 4.3.7 of the NTIA Manual.

S344--This assignment has been granted a waiver and need not comply with the provisions of Section 8.2.20 of the NTIA Manual.

S345--DOE operations in the band 4400-4940 MHz under this authority will be for emergency deployment of the NEST system. For such use in a given area, DOE will select clear channels based upon current GMF records. If time permits, DOE will coordinate specific frequencies with the appropriate military frequency managers/coordinators in the field. Tests and training will not be conducted under this authority; frequency applications for such operations will be submitted to the FAS/IRAC on a case-by-case basis.

S348--Operations are subject to compliance with FCC Rules and Regulations, Part 95, Subpart D. Transmitters may be operated only by employees of the Federal Government only for the purpose of interfacing with Non-federal licensees to coordinate essential and mutual activities. This authority may be revoked by the Federal Communications Commission in its discretion at any time.

S349--Not to preclude assignment of this frequency outside of normal land mobile interference range (excluding skip and sporadic E reflection etc.) of DOE receive stations.

S350--In the frequency band 30-400 MHz for this FAC operation, power shown is for primary equipment. Back-up equipment has been engineered and installed with output power up to 35 watts. Use of this back-up equipment is authorized during emergencies and/or failure of primary equipment.

S351--This assignment is planned for implementation or deletion as a consolidation of frequencies being used.

S354--This planned assignment is for a Space Project that has been approved in principle by NTIA in the research/development phase. Some operational characteristics have not been determined. This listing does not provide authority to transmit.

S355--This assignment is for a wide-area, common-use frequency pursuant to Section 4.2.3 of the NTIA Manual.

S356--This assignment is for a local-area, common-use frequency pursuant to Section 4.2.4 of the NTIA Manual.

S357--Power shown is for emergencies only. Normal power is 10 kW.

S358--This assignment is exempt from referral to NTIA by Exception 1 of the domestic fixed policy in Section 8.2.11 of the NTIA Manual.

S359--This assignment is exempt from referral to NTIA by Exception 2 of the domestic fixed policy in Section 8.2.11 of the NTIA Manual.

S360--This assignment is exempt from referral to NTIA by Exception 3 of the domestic fixed policy in Section 8.2.11 of the NTIA Manual.

S361--Multiple transmitting and/or receiving stations operating at FIXED (STC prefixed with FX) locations are involved in this assignment; and, it is not feasible to indicate all specific locations. (The method of operation must be fully explained in supplementary details when S361 is applied to a frequency assignment.)

S362--One or more transportable transmitting and/or receiving stations are utilized in this assignment.

S366--All operations will be outside of the U.S./Canada Border Zone, or for assignments for frequencies below 1000 MHz the power used while operating in the Border Zone will not exceed 5 watts.

S367--This frequency assignment has been made on an exceptional basis for operation in the National Radio Quiet Zone on the conditions that use shall be minimized consistent with operational requirements and that any technical modification to this assignment shall be coordinated in accordance with Section 8.3.9 of the NTIA Manual.

S368--Subject to Department of the Interior, Bureau of Reclamation net control.

S370--Transportable earth station operations in the 7300-7750 MHz and 8025-8400 MHz bands shall be deployed in such a manner as not to cause harmful interference to existing assignments and will adjust to allow additional stations of other radio services in these bands as required.

S371--This assignment is in accordance with Chapter 10 and Section 7.14 of the NTIA Manual.

S373--This assignment, in the 2700-2900 MHz band, is for operation in a designated heavily used area or for collocated operation (see Annex D of the NTIA Manual). This equipment has the capability of implementing the additional Electromagnetic Compatibility (EMC) provisions of RSEC Criteria D under Section 5.3 of the NTIA Manual. Implementation of this capability may be necessary at a later date.

S375--Operations authorized by assignments bearing this note shall be subject to the GMF recording method being developed in accordance with IRAC Doc. 23200/1 (FAS ADM 830029/1).

S376--Operations on this frequency under direct-control of the USDA, Forest Service.

S378--In emergency situations a maximum power of 25 watts for ship stations and 10 watts for coast stations is authorized.

S381--Operations under this assignment are for SHARES traffic in accordance with Section 7.3.8 of the NTIA Manual.

S382--This record is retained for spectrum management and analysis purposes and does not constitute an NTIA authority to transmit.

S383--This sounder assignment complies with Section 8.2.21 of the NTIA Manual. The frequency bands listed in paragraph 1.c. of Section 8.2.21 have been suppressed. The information required by paragraph 2 of Section 8.2.21 is provided in the supplementary details of this assignment.

S384--This assignment has been made pursuant to Part 4.3.2 of the NTIA Manual.

S385--This GMF listing identifies passive sensor or radio astronomy receiving stations for spectrum management and analysis purposes and does not constitute an NTIA authority to transmit. Interference protection to the receiving station is afforded only to the extent provided in the National Table of Frequency Allocations.

S387--Upon implementation of narrowband operations this channel will be vacated.

S388--This assignment supports DSCS Operations Center earth stations limited to locations at Fort Detrick, and Fort Meade, MD, and Camp Roberts, CA. This assignment shall not preclude new terrestrial assignments within or overlapping the frequency band 7250-7750 MHz provided each new terrestrial assignment does not exceed a maximum tolerable interfering power of -141.3 dBm in any 30 kHz bandwidth at the earth station receiver. In addition, this assignment has no priority over either future meteorological-satellite systems (See G104) or terrestrial assignments authorized prior to April 26, 1994.

S390--This assignment for wideband telegraphy, facsimile and/or special transmission systems in the Maritime Mobile Service is being made in accordance with Section 8.2.29, paragraph 5.c.(1) of the NTIA Manual and ITU RR 52.170.

S391--This assignment is an expansion or enhancement of an existing system in the 138-150.8, 162-174, or 406.1-420 MHz band which utilizes a band-width greater than 11 kHz.

S396--This assignment is in accordance with either Section 4.3.7, paragraph 6.a, or Section 4.3.9, paragraph 6.d of the NTIA Manual.

S397--This assignment is for a joint law enforcement requirement pursuant to Section 4.3.16 of this Manual.

S398--This assignment is for a joint incident response requirement pursuant to Section 4.3.16 of this Manual.

S399--Effective January 1, 2005, any federal operation in the band 162-174 MHz, not conforming to the 12.5 kHz channel plan, is on a non-interference basis to all operations that do conform to the 12.5 kHz channel plan in accordance with Section 4.3.7 of the NTIA Manual.

S400--This frequency assignment is delinquent for review in accordance with the NTIA Manual 8.2.6 and Annex F, and an expiration date (EXD) has been applied. The Agency will review the frequency assignment, remove the expiration date (EXD) and this S note prior to the EXD or the assignment will expire.

S401--This record requires review every 10 years per NTIA Manual, Annex F.

S402--This assignment has been made pursuant to Section 8.2.47 of the NTIA Manual for a shared federal/non-federal radio system.

S403--This is a temporary GMF assignment for a short-term/limited period requirement that the agency request expedited review by the FAS representatives.

S404--This assignment fulfills a requirement for NOAA Weather Radio Link UHF one-way single frequency operation.

S405--Prior to operation under the authority of this assignment for unmanned aircraft system (UAS), a certificate of waiver or authorization must be obtained from the Federal Aviation Administration per 8.3.33.

S406--GPS re-radiators must operate in accordance with Section 8.3.28 of the NTIA Manual. Any malfunction, misalignment, or tampering with the equipment or its location resulting in increased power spectral density outside the building could cause harmful radio frequency interference to GPS receivers, including those in aircraft or ground based facilities.

S407--Army Tactical Radio Relay (TRR) operations are authorized on a non-interference basis under the following conditions: (1) Until an Advanced Wireless Service (AWS) licensee successfully coordinates to operate within 115 km of the TRR area of operation; or (2) Army has coordinated successfully with all affected AWS licensees.

S408--The equipment is performing short-term DOD AIMS Platform Level Certification testing at a specific location not listed in the approved SPS Stage 3 Certification, not to exceed ninety days. This location shall not be used for operational or training purposes unless both the AIMS certification letter and the SPS Stage 4 has been approved.

S409--The equipment listed in this assignment has completed AIMS certification testing and is awaiting the official AIMS certification letter and NTIA, Stage 4 certification as required by NTIA 10.8.4(2) and 8.3.16.3(7). This assignment allows operations to proceed until NTIA, Stage 4 certification is completed. Equipment use must be

within the operational parameters authorized by the AIMS certification test.

S545--This assignment supports the NASA/Commerce Earth Exploration Service Space Program LANDSAT.

S566--This assignment shall expire upon completion of the Advanced Technology Satellite Global Positioning System space project.

S567--This assignment shall expire upon completion of the Deep Space Program space project.

S570--This assignment shall expire upon completion of FLEETSATCOM space project.

S572--This assignment shall expire upon completion of the Air Force Satellite Data System space project.

S575--This assignment supports the NASA TDRSS space program.

S576--This assignment supports the NASA Space SHUTTLE (STS) program.

S594--This assignment supports the GOES Space System.

S595--This assignment supports the GPS program.

S597--This assignment supports the Navy Space Surveillance System.

S603--This assignment supports the Space Ground Link Subsystem (SGLS) operations.

S604--This assignment supports foreign space operations.

S606--This assignment shall expire upon completion of the NATO IIIA space project.

S615--This assignment supports the FCC authorized EUTELSAT Atlantic Bird-2 satellite located at 8.0 WL.

S617--This assignment supports the NASA SAR space program.

S619--This assignment supports the INTELSAT V satellite.

S621--This application supports a DOD space project.

S626--This assignment shall expire upon completion of the LEASAT (FLTSATCOM-A) space project.

S627--This assignment supports the Small Business satellite.

S629--This assignment supports the TIROS-N space system.

S632--This assignment supports the NASA Voyager Deep Space Program.

S641--This assignment supports the NASA Hubble Space Telescope (HST) space program.

S643--This assignment supports the Defense Satellite Communications System (DSCS).

S651--This assignment supports the NASA Space Station space program.

S662--This assignment is for Common Carrier service provided in a non-federal Domestic Satellite System. The specific frequency and satellite is dependent upon the Common Carrier selected to provide the service.

S664--This assignment shall expire upon termination of the STATIONAR Satellite System (USSR).

S665--This assignment is in the INMARSAT space system. If this assignment is for a transportable land-based or aeronautical INMARSAT terminal, it is subject to coordination with the Common Carrier Bureau of the Federal Communications Commission. This coordination will be conducted by the Communications Satellite Corporation in accordance with Annex E.

S666--This assignment supports the NATO IV space project.

S670--This assignment supports the FCC authorized INTELSAT Satellite System.

S671--This assignment supports the Orbital Sciences Corporation DATASAT Space System.

S673--This assignment supports the NASA Space Program Cosmic Background Explorer (COBE) satellite.

S680--This frequency supports the Commerce project Pan-Pacific Educational and Cultural Experiments by Satellite (PEACESAT).

S681--This assignment supports the NASA Extra-Vehicular Activity UHF Communications Subsystem.

S692--This assignment supports the Motorola Satellite Communications, Inc.'s IRIDIUM Space System.

S696--This assignment supports the NASA Tropical Rainfall Measurement Mission (TRMM).

S698--This assignment will expire upon completion of the Space Project NATO IV.

S703--This assignment supports the NASA Summer Undergraduate Research Fellowship Satellites I and II (SURFSAT).

S707--This assignment supports the German SAFIR System.

S710--This assignment supports the MILSTAR Communications Satellite System.

S712--This assignment supports the DOE Proliferation Detection and Environmental Monitoring Satellite Program.

S713--This assignment supports the NASA Fast Auroral Snapshot Explorer (FAST).

S714--This assignment supports the NASA Submillimeter Wave Astronomy satellite (SWAS).

S715--This assignment supports the NASA International Solar Terrestrial Program (ISTP) Interplanetary Physics Laboratory WIND.

S717--This assignment supports the NASA Earth Observing System AM (EOS-AM) which is also known as Terra Communications System.

S719--This assignment supports the NASA Advanced Composition Explorer (ACE).

S722--This assignment supports the NASA CASSINI Satellite System.

S723--This assignment supports the NASA Chandra X-Ray Observatory (CXO).

S724--This assignment supports commercial service using the Russian LOUTCH WSDRN satellite.

S730--This assignment supports the NOAA K, L, and M Satellite System.

S733--This assignment supports the EARTHWATCH Remote Sensing System.

S737--This assignment supports the Hughes Communications Galaxy, Inc. GALAXY VIII (I) satellite.

S742--This assignment is for use by a Federal Government earth station supporting a foreign space operation. The responsible federal agency has waived the NTIA spectrum certification process for the earth station operation. Therefore, although this operation may be in accordance with the National Table of Frequency Allocations, it must be conducted on an unprotected, non-interference basis to those U.S. operations that are in conformity with the National Table of Frequency Allocations.

S743--This assignment shall expire upon termination of the EXPRESS Satellite System (Russia).

S745--This assignment supports a Federal Government space program.

S747--This assignment is for a receive only earth station for the IRS-1B satellite.

S748--This assignment is for a receive only earth station for the IRS-1C satellite.

S749--This assignment is for a receive only earth station for the ERS-2 satellite.

S750--This assignment supports the Space Test Experiment Platform (STEP 0) program.

S758--This assignment supports the PANAMSAT PAS-8 and PAS-9 satellites.

S759--This assignment supports the NASA Thermosphere-Ionosphere-Mesosphere-Energetics-Dynamics (Timed) Satellite System.

S760--This assignment supports the Ikonos-1 and Ikonos-2 Satellite System.

S762--This assignment supports the ICO Medium Orbit satellite constellation.

S763--This assignment supports a Federal Government program using a commercial contractor operating in the non-federal space band. The license to operate is held by a non-federal entity in support of this program. This record is incorporated into the Government Master File for spectrum analysis, and information purposes.

S765--This assignment supports the GLOBALSTAR Satellite System.

S767--This assignment supports the Orbview Space System.

S769--This assignment is for a receive only earth station for the IRS-1D satellite.

S771--This assignment supports the NASA Quikscat Satellite System.

S775--This assignment supports the NASA Active Cavity Radiometer Irradiance Monitor Satellite System (ACRIMSAT).

S780--This assignment supports the NASA Earth Orbiter-1 (EO-1) Communications System.

S782--This assignment supports the NASA Earth Observation System-PM (EOS-PM), which is also known as Aqua.

S783--This assignment supports the NAHUEL-C Satellite System (Argentina).

S785--This assignment supports the NASA Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI) Communications System.

S786--This assignment supports the NASA Galaxy Evolution Explorer (GALEX) Satellite Communications System.

S787--This assignment supports the NASA Ice, Cloud, and Land Elevation (ICESAT) Satellite Communications System.

S788--This assignment supports the NASA Spitzer Space Telescope (formerly the Space Infrared Telescope Facility (SIRTF)) Communications System.

S789--This assignment supports the FCC Galaxy-11 Satellite System.

S791--This assignment supports the NASA 2001 Mars Odyssey (formerly Mars Surveyor 2001 Orbiter) Communications System.

S792--This assignment supports the NASA Wire-less Video System (WVS) Communications System.

S795--This assignment supports the HISPASAT-1C Satellite System.

S796--This assignment supports the Astrovision Satellite System.

S797--This assignment supports the NASA Solar Radiation and Climate Experiment (SORCE) Satellite Communications System.

S799--This assignment supports the NASA Swift Gamma Ray Medium Class Experiment (MIDEX) Satellite Communications System.

S802--This assignment supports the FCC authorized AMC-4 (formerly GE-4) Satellite System.

S804--This assignment supports the PANAMSAT PAS-5 Satellite System.

S805--This assignment supports the PANAMSAT PAS-1R Satellite System.

S806--This assignment supports the NASA Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation (CALIPSO) (formerly PICASSO) Satellite Communications System.

S812--This assignment supports the NASA Earth Observing System (EOS) - Aura Satellite Communications System.

S814--This assignment supports the Atlantic Bird 2 (EUTELSAT) at 8.0 WL Satellite System.

S816--In the band 3600-3650 MHz, in accordance with US245,

- i) an EMC analysis based on the NTIA TR-99-361 report was performed by the non-federal applicant and the non-federal applicant agrees to accept this potential for unacceptable interference; and
- ii) these fixed-satellite service operations are limited to international inter-continental systems.

S817--In the band 3650-3700 MHz, in accordance with US348, an EMC analysis based on the NTIA TR-99-361 Report was performed by the non-federal applicant and the non-federal applicant agrees to accept this potential for unacceptable interference from the three stations identified in US348. Additionally, per US245, in the band 3650-3700 MHz, these fixed-satellite service operations are limited to international inter-continental systems.

S818--The band 5850-5925 MHz is shared on a co-primary basis with Federal Government radiolocation systems in the U.S. and Possessions. In accordance with US245,

- i) the applicant is aware of the potential allocation and electromagnetic compatibility issues in the 5850-5925 MHz frequency band and the applicant agrees to accept this potential for unacceptable interference from radiolocation stations operating in accordance with footnote G2 and,
- ii) these fixed-satellite service operations are limited to international inter-continental satellite systems.

S819--In the U.S. and Possessions, the band 5850-5925 MHz is shared on a co-primary basis with federal radiolocation systems. In accordance with US245, this earth station transmitter has been successfully coordinated with the Federal Government. The federal operators have evaluated the potential interference from this earth station transmitter to their radiolocation receivers and have concluded that no unacceptable interference will occur. Any conditions placed on the earth station transmitter are included in SUPPLEMENTARY DETAILS. Any conditions required to protect radiolocation receivers will also be included in the FCC license.

S820--This assignment supports the FCC authorized New Skies Satellite System.

S821--This assignment supports the NASA Mercury Surface Space Environment, Geochemistry and Ranging (MESSENGER) Satellite Communications System.

S823--This assignment supports the FCC authorized TELSTAR-6 Satellite System.

S824--This assignment supports the NASA Mars Exploration Rover 1 and 2 (MER-1 and MER-2) Satellite Communications System.

S825--This assignment supports the FCC authorized Mabuhay (AGUILA 2) satellite located at 146.0 EL.

S826--This assignment supports the FCC authorized GE-3 satellite located at 87.0 WL.

S828--This assignment supports the FCC authorized EHOSTAR 1 satellite located at 148 WL.

S829--This assignment supports the FCC authorized EHOSTAR 2 satellite located at 148 WL.

S830--This assignment supports the FCC authorized EHOSTAR 4 satellite located at 119 WL.

S831--This assignment supports the FCC authorized EHOSTAR 6 satellite located at 119 WL.

S832--This assignment supports the FCC authorized GALAXY III-C, GALAXY VIII(I)-R, and GALAXY VIII- I satellites located at 95.0 WL.

S833--This assignment supports the FCC authorized EUTELSAT Atlantic Bird-3 satellite located at 5.0 WL.

S836--This assignment supports the NASA New Horizons Satellite Communications Systems.

S837--This assignment supports the NASA Mars Reconnaissance Orbiter Satellite Communications Systems.

S839--This assignment supports the NASA Solar Terrestrial Relations Observatory (STEREO) Satellite Communications System.

S840--This assignment supports the FCC authorized Marisat-F2 satellite located at 33.9 W.L.

S841--This assignment supports the FCC authorized AMOS satellite located at 4.0 W.L.

S842--This assignment supports the NASA DAWN Satellite Communications System.

S843--This assignment supports the FCC authorized ESTRELA DO SUL 2 satellite located at 63.0 W.L.

S844--This assignment supports the FCC authorized experimental non-voice non-geostationary Aprize satellite.

S845--This assignment supports the NASA Aeronomy of Ice in the Mesosphere (AIM) Satellite Communications Systems.

S848--This assignment supports the FCC authorized non-geostationary IRS-P6 satellite.

S849--This assignment supports the FCC authorized non-geostationary QUICKBIRD-1 satellite.

S850--This assignment supports the NASA Time History of Events and Macroscale Interactions during Substorms (THEMIS) Satellite Communications Systems.

S853--This assignment supports the FCC authorized Lockheed Martin-133W-RNSS satellite.

S859--This assignment supports the FCC authorized Lockheed Martin-107.3W-RNSS satellite.

S860--This assignment supports the FCC authorized AMC-9 satellite located at 0830000 RLG.

S861--This assignment supports the FCC authorized non-geostationary ORBVUE-5 satellites.

S865--This assignment supports the geostationary satellite Apstar V at 1380000E.

S867--This assignment supports the non-geostationary satellite IKONOS-2.

S868--This assignment supports the non-geostationary satellite IRS-1C.

S869--This assignment supports the non-geostationary satellite IRS-ID.

S870--This assignment supports the non-geostationary satellite IRS-P6.

S871--This assignment supports the non-geostationary CubeSat Test Bed (CSTB) satellite.

S874--This assignment supports the DOE Cobra Flight Experiment (CFE) Satellite System.

S875--This assignment supports the NASA Gamma Ray Large Area Telescope (GLAST).

S876--This assignment supports the DOC/NASA Joint Polar Satellite System (JPSS).

S877--This assignment supports the FCC authorized Orbit Orbcomm J1 satellite.

S879--This assignment supports the NASA Interstellar Boundary Explorer (IBEX) spacecraft.

S881--This assignment supports the NASA Kepler Satellite Mission System.

S883--This assignment supports the NASA Lunar Reconnaissance Orbiter System.

S885--This assignment supports the NASA Widefield Infrared Survey Explorer System.

S887--This assignment supports the NASA Fast Satellite (FASTSAT) System.

S889--This assignment supports the NASA Orbiting Carbon Observatory (OCO).

S890--This assignment supports the NASA Mars Science Laboratory (MSL).

S891--This assignment supports the FCC authorized INTELSAT 805 satellite located at 55.500 WL.

S892--This assignment supports the FCC authorized HISPASAT 1C satellite located at 30.000 WL.

S893--This assignment supports the FCC authorized ANIK F1 satellite located at 107.300 WL.

S894--This assignment supports the FCC authorized ANIK E2 satellite located at 111.100 WL.

S895--This assignment supports the FCC authorized ANIK E1 satellite located at 118.700 WL.

S896--This assignment supports the FCC authorized AMC-9 satellite located at 83.000 WL.

S897--This assignment supports the FCC authorized AMC-5 (Formerly GE-5) satellite located at 79.000 WL.

S898--This assignment supports the FCC authorized AMC 6 satellite located at 72.000 WL.

S899--This assignment supports the FCC authorized TerreStar 1 satellite located at 111.100 WL.

S900--This assignment supports the NASA Global Precipitation Measurement (GPM) System.

S902--This assignment supports the FCC authorized Horizons-1 at 127 WL.

S904--This assignment supports the Wideband Global SATCOM System (WGS).

S906--This assignment supports the FCC authorized non-geostationary Worldview 60 (WV-1) satellite.

S907--This assignment supports the FCC authorized non-geostationary Worldview 110 (WV-2) satellite.

S908--This assignment supports the DOC Ocean Surface Topography Mission (OSTM).

S910--This assignment supports the FCC authorized AMC satellite constellation.

S911--This assignment supports the FCC authorized fixed-satellite system, NEW DAWN.

S912--This assignment supports the NASA Space Program Radiation Belt Storm Probes (RBSP).

S913--This assignment supports the NASA Space Program Solar Dynamics Observatory (SDO).

S915--This assignment supports the NASA Landsat Data Continuity Mission (LDCM).

S917--This assignment supports the FCC authorized Telstar satellite constellation.

S918--This assignment supports the DOC COSMIC Satellite System.

S919--This assignment supports the FCC authorized New Skies satellite.

S920--This assignment supports the NASA Aquarius mission.

S923--This assignment supports the FCC authorized geostationary satellite system for DIRECTV.

S924--This assignment supports the Air Force Academy Falcon Satellite Program.

S925--This assignment supports the FCC authorized Hughes Network Satellite Systems.

S926--This assignment supports the FCC authorized Newcom International Satellite System.

S927--This assignment supports the FCC authorized ViaSat satellites.

S928--This assignment supports the FCC authorized AMAZONAS satellites.

S930--This assignment supports the FCC authorized APSTAR satellites.

S932--This assignment supports the FCC Authorization of an earth station to communicate with a non-U.S. licensed satellite.

S933--This assignment supports the NASA Juno spacecraft operations.

S934--This assignment supports the NASA Gravity Recovery and Interior Laboratory (GRAIL) spacecraft operations.

S935--This assignment supports the NASA Nuclear Spectroscopic Telescope Array (NuSTAR) spacecraft operations.

S936--This assignment supports the NASA Soil Moisture Active Passive (SMAP) spacecraft operations.

S937--This assignment shall expire upon completion of Mobile User Objective System (MUOS) space program.

S938--This assignment supports the NASA Firefly spacecraft operations.

S939--This assignment supports the DOD Advance Extremely High Frequency Satellite System (AEHF).

S940--This assignment supports the NASA Ice, Cloud, and land Elevation Satellite-2 (ICESat-2).

S941--This assignment supports the NASA Mars Atmosphere and Volatile Evolution (MAVEN) mission.

S942--This assignment supports the NASA Magnetospheric Multiscale (MMS) mission.

S943--This assignment supports the NASA Interface Region Imaging Spectrograph (IRIS) spacecraft operations.

S945--This assignment supports a Cubesat or smaller satellite whose name is recorded in circuit remarks field.

S946--This assignment supports the NASA International Space Station RapidScat (ISS-RapidScat) operations Space Launch System (SLS) Program.

S950--This assignment supports the NASA Multipurpose Crew Vehicle (MPCV) spacecraft operations.

S951--This assignment supports the NASA Cyclone Global Navigation Satellite System (CYGNSS) spacecraft operations.

S952--This assignment supports the FCC authorized Morelos 3 satellite at 113.1 degrees west longitude.

S953--This assignment supports the NASA Commercial Crew Visiting Vehicle (C2V2) communications subsystem operations on the International Space Station (ISS).

S954--This assignment supports the NASA Interior Exploration Using Seismic Investigations, Geodesy, and Heat Transport (InSIGHT) spacecraft operations.

S955--This assignment supports the NASA Ionospheric Connection (ICON) Explorer spacecraft operations.

S956--This assignment supports the NASA Gravity Recovery and Climate Experiment-Follow-On (GRACE-FO) spacecraft operations.

S957--This assignment supports the NASA Transiting Exoplanet Survey Satellite (TESS) operations.

S958--This assignment supports the NASA Origins-Spectral Interpretation-Resource Identification-Security-Regolith Explorer (OSIRIS-REx) spacecraft operations.

S959--This assignment supports the NASA Solar Probe Plus (SPP) spacecraft operations.

S960 – This assignment supports the NASA LandSat-9 mission.

S961 – This assignment supports the NASA Lucy mission.

S962 – This assignment supports the NASA Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission.

S963 – This assignment supports the NASA Restore-L mission.

S964 – This assignment supports the NASA Wide Field InfraRed Survey Telescope (WFIRST) mission.

S965--This assignment supports the NASA Mars 2020 Rover mission.

S966– This assignment supports the NASA Polarimeter to Unify the Corona and Heliosphere (PUNCH) spacecraft operations.

S967 – This assignment supports the Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites (TRACERS) spacecraft operations.

S968 – This assignment supports the NASA Total and Spectral Solar Irradiance Sensor-2 (TSIS-2) operations.

S969 – This assignment supports the NASA Interstellar Mapping and Acceleration Probe (IMAP) spacecraft operations.

S970 – This assignment supports the NASA Global Lyman-alpha Imagers of the Dynamic Exosphere (GLIDE) spacecraft operations.

S971 – This assignment supports the NASA Surface Water and Ocean Topography (SWOT) spacecraft operations.

S972 – This assignment supports the NASA Psyche spacecraft operations.

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