

# Summary of Changes

## S.1 January 2021 Edition

Manual Section	Brief Description	IRAC Doc #
Preface	Deleted duplicate and out-of-date information “About this Manual”.	Editorial
Section 1.1	Updated information on current authorities and functions.	Editorial
Sec. 1.3.2	Modified Article V, Section 3, of the IRAC Bylaws to update functions of the Spectrum Planning Subcommittee (SPS) function.	Doc. 43963/1
Preface Sec. 1.3.2 Annex G	Modified IRAC bylaws, other references and abbreviations (e.g., Preface, Table G.1. of Annex G) to reflect name change of “Broadcasting Board of Governors” (BBG) to “United States Agency for Global Media” (USGM).	Doc. 44087/1
Sec. 4.1.3	Modified Table of Frequency Allocations to reflect changes codified in the Oct. 1, 2020 version of Sec. 2.106 of the print edition of Title 47 of the Code of Federal Regulations (47 CFR 2.106).	Editorial
Sec. 4.1.3	Modified Government Footnote G2 to include Footnote US269 as a reference.	Doc. 43148/1
Sec. 4.3.4.3 Sec. 8.3.17 Sec. 9.8.2 Annex D	Modified Sections 4.3.4.3, 8.3.17, 9.8.2.26.b(11), 9.8.2.27.c(2)(p), 9.8.2.29.b(1)(p), 9.8.2.35.b(11), 9.8.2.36.c(2)(p), 9.8.2.38.b(1)(p), Table 2 and Figure 2 in Annex D, and Government Footnote G2. The modifications removed Non-Federal allocations from the bands 2310-2320 MHz and 2345-2395 MHz in accordance with changes made to the Aeronautical Mobile Telemetry (AMT) by the WRC-07 Report and Order (FCC 15-50).	Doc. 44313/1
Sec. 4.3.7 Sec. 5.3.11 Annex A	Modified Section 4.3.7 to add the 6.25 kHz necessary bandwidth. Modified Section 5.3.11 to add the band 162-174 MHz for Fixed and Mobile Digital 6.25 kHz Channel Equipment. Modified Annex A to Update Notes S391 and S396.	Doc. 44531/1
Sec. 4.3.19	Updated 7125-8500 MHz Channeling Plan to accommodate new technologies to improve the overall spectrum efficiency and increase effectiveness.	Doc. 44577/1
Sec. 5.2.2.2	Modified to make it explicit that the emissions standards are meant to be symmetrical with respect to the assigned frequency.	Doc. 43603/1
Sec. 5.3.3.3	Modified tables 5.3.3 and 5.3.4, and created a new table 5.3.5 that includes new standards for small parabolic antennas for federal fixed service systems that operate in the band 7.125-8.5 GHz.	Doc. 43665/1
Sec. 5.3.3.5	Added a new section for the Spectrum Efficiency Standards for Fixed Service to harmonize with FCC standards, taking into account the challenges federal agencies typically face in deploying radio systems that could include lengthy appropriation and procurement cycles, and design changes to adapt to their mission needs.	Doc. 44188/1
Sec. 7.1 Sec. 7.5.8 Sec. 7.5.9 Sec. 7.14 Sec. 7.23 Sec. 7.25	Modified Section 7.25 to add authority for certain use of electronic attack and electronic countermeasures by Departments of Justice and Homeland Security against unmanned aircraft systems in accordance with Section 1602(a) of the Preventing Emerging Threats Act of 2018. Updated Section 7.14 regarding the use of electronic attack and electronic countermeasures by the Department of Defense. Revised Section 7.23 to provide agencies maximum flexibility to use commercial and other licensed services that are authorized by the FCC and introduced into the market. Made conforming changes to Sections 7.1, 7.5.8, and 7.5.9.	Doc. 43863/2
Sec. 7.11 Annex C	Significantly revised Section 7.11 to facilitate use of certain frequencies by Federal experimental stations without prior NTIA approval. Addressed Navy request for a new location at Jamesburg, CA and administrative adjustment for Midway Research Facility.	Doc. 44417/2 Doc. 44487/1
Sec. 8.2.30	Modified procedures for reporting Cases of harmful interference.	Doc. 43795/1
Sec. 8.2.44	Added new section to establish policy guidance for spectrum certification of launch vehicles.	Doc. 43892/2
Sec. 8.2.53	Modified to exempt some small satellite systems from the requirement that the tracking, telemetry and command (TT&C) subsystem receive Stage 4 certification of spectrum support.	Doc. 43503/1
Sec. 8.2.54	Modified policy concerning use of frequencies in the band 420-450 MHz by Range Safety Operations.	Doc. 43643/1
Sec. 8.3.7 Annex A	Updated Section 8.3.7 and Annex A Coordination Note C069 concerning coordination of Geostationary Operational Environmental Satellite Terrestrial Data Collection Platforms	Doc. 43876/1

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	(DCP).	
Sec. 8.3.15	Addition of coordination contours for the Air Force Mobile CubeSat Command and Control (MC3) Ground Station.	Doc. 43893/1
Sec. 8.3.15	Added coordination contours for the Navy Naval Research Laboratory Chieftan, NASA White Sands, NM, and Air Force for the L-3 COM Ground Multi-Band Terminal (GMT), USAPW, FalconSAT-6, and MONOLITH CubeSat Experiment ground stations.	Doc. 43940/1
Sec. 8.3.15	Added coordination contours for the Commerce GOES-R ground stations.	Doc. 44284/1
Sec. 8.3.15	Added coordination contours for the NASA operations at Killeville, OH and Boardman, OR; and the Air Force S5 Micro-Satellite System, Global Space Telemetry Resource (GSTR), and AN/FRC-178 Ground Antenna Station.	Doc. 44285/1
Sec. 8.3.15	Added coordination contours for the Air Force Mobile Cubesat Command and Control (MC3) Ground Stations, ORCA CubeSat, MIT-LL Over-the-Air Ka Test Terminal (OTAKaTT); and NASA Kennedy Space Center (RFTS) and FLNASA WG5 Antenna. (RFTS), FL.	Doc. 44286/1
Sec. 8.3.16 Annex A	Modified Section 8.3.16.3(7) and added a new Special Note S409 concerning temporary United States & Possessions (US&P) frequency assignments for testing prior to receiving Stage 4 Spectrum Certification.	Doc. 43565/1
Sec. 8.3.26 Annex A	Updated Section 8.3.26 and Coordination Note C092 to correct the Patuxent River, MD operating area by integrating the Atlantic Test Range boundaries and associated Atlantic Coastal Waters.	Doc. 43304/1
Sec. 8.3.32 Sec. 9.8.2 Sec. 9.10 Sec. 9.11.4	Modified Sections 8.3.32.6.b, 9.8.1, 9.10, 9.11.4, and 9.8.2.41 to change the Agency Handling Instructions (AHI) code to FOI (Freedom of Information Act).	Doc. 43740/1
Sec. 9.8.2	Added an Agency Specific Function Identifier to Section 9.8.2.39u concerning APRS Weather Stations.	Doc. 44204/1
Sec. 9.8.2 Annex A	Modified Section 9.8.2.39.j.(3) and Special Note S945 to change "Nanosat" to "smaller satellite."	Doc. 43368/1
Chapter 10	Updated chapter to reflect revisions to OMB Circular A-11 and to make it more concise and accessible.	Doc. 44055/2
Chapter 12 Sec. 7.3 Sec. 7.5.3 Sec. 7.5.4 Sec. 7.5.6 Sec. 7.24	Added a new chapter to consolidate provisions related to emergency readiness. Sections 7.3, 7.5.3, 7.5.4, 7.5.6, and 7.24 moved to new chapter.	Doc. 44259/3
Annex A	Removed Record Notes that are no longer in use in the Government Master File: E013, L174, L201, L294, L309, L331, L332, L343, L353, M011, S151, S170, S171, S186, S196, S211, S264, S279, S292, S330, S341, S344, S351, S357, S368, S576, S626, S696, S703, S707, S713, S714, S722, S775, S780, S786, S787, S821, S887, S920, S934, and S938.	Doc. 43875/1
Annex A	Added Special Series Note S408 to support DoD AIMS Platform Level Certification Testing.	Doc. 43564/1
Annex A	Added Special Series Notes: S960 for NASA Landsat-9; S961 for NASA Lucy; S962 for NASA Plankton, Aerosol, Cloud, Ocean Ecosystem (PACE); S963 for NASA Restore-L; and S964 for NASA Wide Field InfraRed Survey Telescope (WFIRST) Mission.	Doc. 43737/1
Annex A	Removed Special Series Note S379 because the Operation Alliance Program was discontinued.	Doc. 43877/1
Annex A	Added a Special Series Note S965 for Mars 2020 Rover mission.	Doc. 44205/1
Annex A	Added a new Coordination Note C090 for frequency assignments in the Aeronautical Mobile Telemetry (AMT) band 5091-5150 MHz that have been coordinated with the FAA, FCC, and AFTRCC.	Doc. 44314/1
Annex A	Modified C013, C015, S643 S904 and deleted S616.	Doc. 44594/1
Annex A	Corrected contact information in Coordination note C027.	Doc. 44486/1

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Annex A Annex F	Updated Special Series Note S400 and Annex F by correcting the names for the Aeronautical Advisory Group (AAG) and the Military Advisory Group (MAG), and added a new provision in Annex F for delinquent frequency assignments beyond the five year and ten year review period by adding an expiration date (EXD) of seven and twelve years, respectively.	Doc. 44206/1
Annex D	Corrected the names for the Aeronautical Advisory Group (AAG) and the Military Advisory Group (MAG), and updated contact information.	Doc. 43874/1
Annex G	Added Bureau Code NCC (National Coordination Center).	Doc. 43878/1
Annex G	Added or modified Manufacturer Codes.	Doc. 44108/1
Annex G	Updated antenna abbreviations.	Doc. 44616/1
Annex G	Removed the International Boundary and Water Commission (IBWC).	Doc. 44617/1
Annex G	Updated Coast Guard Areas and Districts to include a new map.	Doc. 44315/1
Annex J	Updated to provide guidance for determining the necessary bandwidth of federal radiocommunications systems.	Doc. 43500/2
Annex J	Updated Table A to revise the -20 dB Necessary Bandwidth Equation for Frequency Modulated Chirp Pulsed Waveforms.	Doc. 43758/1
Annex J	Created a new Section (J.3.4) for pulse code modulation/phase modulation (PCM/PM) necessary bandwidth equations.	Doc. 43871/1
Annex M	Updated to describe procedures and references for collecting measurement data for fixed and mobile services.	Doc. 44069/1
Annex O	Updated to reflect revised statutory requirements and other changes for transition planning and use of Spectrum Relocation Fund under Spectrum Pipeline Act and MOBILE NOW Act.	Doc. 44597/2

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