## **Summary of Changes**

## **Summary of Changes and Instructions**

## 1.1 May 2012 Revision of the January 2008 Edition of the NTIA Manual

The font size of the body text was changed from 12 to 11 point thoughout the manual. The table data and footnote text is 10 point. The whole manual is reprinted in this revision. The version, revision, section and page number markings are moved to the bottom of each page.

The following is a summary of the changes made by this revision. In some cases redline/strikeout markings are shown to make it easier to determine what was changed.

| Chapter, Part, or Section | Change   | Authorization<br>Doc. Number |
|---------------------------|--|------------------------------|
| Chapter 1                 |  |                              |
| Section 1.3.2             | 1.3.2 Bylaws   | 38827/1                      |
|                           | Section 2 - The Frequency Assignment Subcommittee  |                              |
|                           | a. The FAS shall have as its normal function the carrying out of those functions given in Article II related to the assignment and coordination of radio frequencies and the development and execution of procedures therefore. Only FAS representatives or  |                              |
|                           | alternates are authorized to submit votes for assignments on the FAS agenda or before  |                              |
|                           | the subcommittee.  | 2000514                      |
| Section 1.3.2             | Address Correction:  | 38906/1                      |
|                           | Article V – Substructure, Section 2 - The Frequency Assignment Subcommittee:   |                              |
|                           | d. The Military Assignment Group (MAG) is established under the cognizance of the NTIA IRAC Frequency Assignment Subcommittee (FAS) to provide guidance and procedures for the management of the 225.000-328.600 and 335.400-399.900 MHz frequency bands (herafter referred to as "the MAG bands"), which are of primary concern to the military departments.  |                              |
|                           | 4. The MAG shall consist of one primary and one alternate member from the Army, Navy, Air Force and the Federal Aviation Administration (FAA). The Department of the Air Force, Air Force Frequency Management Agency (AFFMA)Spectrum Management Office (AFSMO) shall designate one of its employees as the MAG Chair. Personnel from other Department components or Federal agencies may participate in meetings, as authorized by the MAG Chair. |                              |
| Section 1.3.2             | Correcting a reference:  | 39045/1                      |
|                           | Article IX - Personnel Security Clearances   |                              |
|                           | <b>Section 1</b> - Representatives, alternates and observers on the IRAC, its subcommittees and ad hoc groups, shall be cleared for access to SECRET information in accordance with standards established by Executive Order 12958, as amended 13526 (E.O. 13526). Their clearances shall be registered with NTIA's security officer.  |                              |
|                           | <b>Section 2</b> - Assistants, consultants, advisors, visitors or guests shall be sponsored by NTIA, a member or an observer and shall possess a security clearance equal to the classification of the information being considered. Such clearances will be in accordance with standards established by Executive Order 12958, as amended. Their clearances shall be registered with NTIA's security officer.                                     |                              |
|                           | Article X - Safeguarding Official Information  |                              |

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|                              | Security information is marked and handled in accordance with Executive Order 1295813526, e.g., CONFIDENTIAL, SECRET, etc. (39045/1)   |  |  |                              |
| Section 4.1.3                | Added footnote US64 and deleted US345.  Reference FCC Report and Order Amendment of Parts 2 and 95 of the Commission's Rules to Provide Additional Spectrum for the Medical Device Radiocommunication Service in the 413-457 MHz band, ET Docket No. 09-36 and RM-11404.   |  |  | 39309/1                      |
| Section 4.1.3                | Added footnote US23 and deleted US381.  Reference FCC Report and Order Amendment of Parts 2 and 97 of the Commission's Rules to Facilitate Use by the Amateur Radio Service of the Allocation at 5 MHz ET Docket No. 10-98, RM-11353.  |  |  | 39308/1                      |
| Section 4.1.3                | Reference the adopted FCC First Report and Order and Further Notice of Proposed Rulemaking addressing the amendment of the Commission's rules to provide Spectrum Medical Body Area Networks. Added new footnote US101 to the manual and added US101 to the table in the bands 2360-2390, 2390-2395, and 2395-2400 MHz.  |  |  | 39277/1<br>39298/1           |
| Section 4.1.3                | Correction of the 10-10.5 GHz portion  | of the allocation table.   |  | 38828/1                      |
|                              | United States Table  |  | FCC Rule Part(s)                               |                              |
|                              | Federal Table 10-10.455 RADIOLOCATION US58 US108 G32   | Non-Federal Table<br>10-10.45<br>Amateur<br>Radiolocation US108                      | Private Land Mobile (90)<br>Amateur Radio (97) |                              |
|                              |  | 5.479 US58 NG42<br>10.45-10.5<br>Amateur<br>Amateur-satellite<br>Radiolocation US108 |  |                              |
|                              | 5.479<br>10.5-10.55<br>RADIOLOCATION US59  | US58 NG42 <u>NG134</u>   | Private Land Mobile (90)                       |                              |
| Section 4.3.11               | Corrected the reference to a US footnote:  Plan for Bio-Medical Telemetry and Medical Radiocommunication  1. This frequency may be authorized for base (FB or FC), mobile (ML or MS), mobile repeater (MLR), and for fixed (FX) operations to access a repeater which retransmits on a different frequency. This frequency shall be authorized for both federal and non-federal use with a maximum Effective Radiated Power (ERP) of 100 watts. Airborne operations on this frequency are prohibited. The fixed station classes included in this limitation are in addition to those mentioned in US216-US73(A). |  |  | 38630/1                      |
| Chapter 5                    | Editorial corrections were made to   |  |  | None                         |
| Chapter 6                    |  |  |  |                              |
| Section 6.1.1                | Added a new definition for Dynamic Spectrum Access: <b>Duplex Operation:</b> Operating method in which transmission is possible simultaneously in both directions of a telecommunication channel. (RR) <b>Dynamic Spectrum Access:</b> The real-time adjustment of spectrum utilization in response to changing circumstances and objectives.  |  |  | 38532/1                      |
| Section 6.1.4                | Added stations classes E1, E2, E3 and  |  |  | 38791/1                      |
| Chapter 7                    |  |  |  |                              |
| Section 7.3.9                | Added this new section which addresses HF Radio Standards.   |  |  | 39221/1                      |
| Section 7.5.9                | The FCC adopted the <i>MedRadio Expansion (MMNs) R&amp;O</i> . This report and order replaces US345 with US64. The table now reflects that US64 and US345 has been deleted. The reference to US345 is updated to US64 in section 7.5.9.  |  |  |                              |
| Chapter 8 Section 8.2.35     | Corrected an error in an equation:  1. The equivalent isotropically radiated power (e.i.r.p.) transmitted in any direction towards the horizon by an earth station shall not exceed the following limits except as provided in paragraphs 3 or 4:  a. in frequency bands between 1 GHz and 15 GHz $+ 40 \text{ dBW}$ in any 4 kHz band for $\theta \le 0^{\circ}$  |  |  | 39241/1                      |

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|                              | $+40+3\theta$ dBW in any 4 kHz band for $0^{\circ} < \theta \le 5^{\circ}$ ; and   |                              |
|                              | b. in frequency bands above 15 GHz   |                              |
|                              | + 64 dBW in any 1 MHz band for $\theta \le 0^{\circ}$  |                              |
|                              | $+64 + 3\theta$ dBW in any <u>1 MHz</u> 4 kHz band for $0^{\circ} < \theta \le 5^{\circ}$ ;  |                              |
| Section 8.2.44               | This section is deleted and marked "Reserved".   | 38686/1                      |
| Section 8.2.45               | Modified the bands allocated for assignment to mobile stations in certain frequency bands shared with passive sensors.   | 39157/1                      |
| Section 8.3.12               | Modified the band allocated in this section.   | 39157/1                      |
| Section 8.3.13               | Modified the band allocated in this section.   | 39157/1                      |
| Section 8.3.15               | Addition of coordination contour data for a NASA site at Finegayan, Guam.  | 39133/1                      |
| Part 8.4                     | Consequential changes due to the addition of the definition for Dynamic Spectrum Access:   | 38532/1                      |
|                              | Part 8.4, Cognitive Radio System, <u>Dynamic Spectrum Access</u> , and Software Defined Radio Techniques   |                              |
|                              | Radiocommunication systems using Cognitive Radio, Dynamic Spectrum Access, or  |                              |
|                              | Software Defined techniques in any radiocommunications service shall operate in  |                              |
|                              | accordance with the provisions of NTIA rules governing those services.   |                              |
| Chapter 9                    |  |                              |
| Part 9.4                     | 9.4 SECURITY CLASSIFICATION OF APPLICATIONS  | 39045/1                      |
|                              | 1. Classified applications forwarded to NTIA in printed form shall contain all of the security information markings specified for documents in Executive Order 12958-13526(E. O. 12958), of April 17, 1995December 29, 2009. These markings shall be done applied as defined in by the Office of Management & Budget's Information Security Oversight Office (ISOO) Directive No. 1 (32 CFR, Part 2001).   |                              |
| Section 9.8.2                | 9.8.2 Application Data Requirements  | 39045/1                      |
|                              | 6. CLAClassification (1 Character1 Occurrence)  a. This field is for the security classification of the assignment as determined in accordance with Executive Order 12958 of April 20, 199513526.  b. Insert only one of the following codes in this field. ASSIGNMENTS ARE NEVER CLASSIFIED HIGHER THAN CONFIDENTIAL.   |                              |
|                              | 7. CDD Declassification Date (6 Characters - 1 Occurrence)  a. Complete this field for every application on which the CLA data field contains the letter C.  b. Enter the letters DE in the first two characters.  c. Beginning in character three,  |                              |
|                              | (1) enter the year and month of the declassification date, in year and month (YYMM) order (The assignment will be automatically declassified on the last day of that month.). (If the declassification date has been extended beyond 10 years from the initial classification date, an entry is also required in the Circuit Remarks field *CLF); or,  |                              |
|                              | (2) enter the letter X, immediately followed by from one to three numbers, in numerical sequence, that correspond to the applicable exemption categories listed in <a href="Executive OrderE.O. 1295813526">Executive OrderE.O. 1295813526</a> ; or,  (3) enter 25X, immediately followed by a number that corresponds to the applicable exemption category listed in <a href="Executive OrderE.O. 12958">Executive OrderE.O. 12958</a> , <a href="Section 1.6.d13526">Section 1.6.d13526</a> for those assignments that are exempt from the 25 year automatic declassification rule for permanently valuable information. (For all assignments not in |                              |
|                              | the declassification exemption category 25X1, the date for declassification shall be included in the Circuit Remarks field *CDE.); or,  (4) enter OADR for those assignments that are classified derivatively based on source documents for which the declassification instructions are marked "Originating Agency's Determination Required," or its acronym "OADR". An entry of OADR in this data field requires an entry in the Circuit Remarks field  |                              |

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| of Section                   | *CLF.  (5) enter DEVENT for those assignments that will be declassified after the occurrence of an event as specified in <a href="Executive Order_E.O. 1295813526">Executive Order_E.O. 1295813526</a> .  An entry of DEVENT in this data field requires an entry in the Circuit Remarks field *DIC.   | Doc. Number                  |  |
|                              | y. Name, or Personal Identifier and Position, of Original Classification Authority (*CLA).   |                              |  |
|                              | (1) This field is used to identify, by name, or by personal identifier and position, the original classification authority for classified data. This entry shall be included for all classified applications for which the classification was originally applied by the applicant and was not determined from derivative methods. This entry shall include all data in a single occurrence.  (2) Enter the field code REMnn followed by a space. Following the space, enter the code *CLA followed by a comma. Immediately after the comma, enter the name, or personal identifier and position, of the original classification authority, or the statement EXCLUDED,1.7.B if entry of this information falls under the exclusion provision of Executive Order E.O. 12958, Section 1.7.(b)13526.   |                              |  |
|                              | aa. Reason for Classification (*CLR).  (1) This field is used to cite the category, or categories, of Executive Order E.O. 12958, Section 1.513526, that the original classification authority determined to be the reason(s) frequency assignment data in the assignment must be classified. This entry shall be included in all classified applications, except those classified derivatively, for which entry is optional. If this entry is used, all data shall be entered in a single occurrence.   |                              |  |
|                              | (2) Enter the field code REMnn followed by a space. Following the space, enter the code *CLR followed by a comma. Immediately after the comma, enter the code 1.5, followed immediately by one, some or all of the letters a, b, c, d, e, f or g, to re-present the classification categories listed in <a href="Executive Order">Executive Order</a> E.O. 12958, Section 1.513526. If more than one category letter is entered, enter the letters in alphabetical order.  |                              |  |
| Section 9.8.2,<br>39.u       | Part 2 – Agency Specific Function Identifiers with Description   | 38859/1                      |  |
|                              | <b>Ground Missile Defense (GMD) (Ground Missile Defense)</b> Communications used in supporting Anti-Terrorism Force Protection.  |                              |  |
| Section 9.8.2,<br>39.p       | Addition of new text to this section:   p. ReservedPoint of Contact (*POC) This field is required on all federal radio spectrum applications for use in United States and its possessions. This entry identifies the person and associated contact information that validated the assignment data is correct. The field is completed by entering the following data:  a. Enter the field code REMnn followed by a space. Following the space enter the code *POC followed by a comma.  b. Immediately after the comma, enter the name of the individual (not to exceed 17 characters) at the lowest level as designated by the agency followed by a comma.  c. Immediately after the comma, enter the phone number of the person above using 10 characters followed by a comma.  d. Immediately after the comma, enter the date when the data on the assignment was validated in 6 characters in the year, month, and day, and format. | 38825/1                      |  |
|                              | Example: REM05 *POC, JOHN SMITH, 7037801234, 110627  |                              |  |

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|                              | 5. The following card formatting ru  | card formatting rules apply: |                 |                         |                    |                              |  |
|                              | b. All other data fields listed in Part 9.10 may be used at the option of the  |                              |                 |                         |                    |                              |  |
|                              | applicant.  (1) Agency Action Number (ACN) (10 Characters1 Occurrence)  The format of the entry shall be identical to the Agency Serial Number (SER) as specified in Section 9.8.2consist of alpha and or numeric characters and represent agencies internal tracking information for agenda records. The field will be blank if |                              |                 |                         | ption of the       |                              |  |
|                              |  |                              |                 |                         |                    |                              |  |
|                              |  |                              |                 |                         |                    |                              |  |
|                              |  |                              |                 |                         |                    |                              |  |
|                              | not used by the agency for internal  |                              | da records. 11  | ic ficia wii            | i oc biank n       |                              |  |
| Chapter 11                   | Minor editorial corrections were al  |                              | is chapter.     |                         |                    | None                         |  |
| Part 11.5                    | Updated the text in Part 11.5.   |                              |                 |                         |                    | 39046/1                      |  |
| Annex A                      |  |                              |                 |                         |                    |                              |  |
| Annex A                      | The following footnotes are delet<br>L334, L336, L339, S323, S558, S<br>S768, S772, S778, S781, S852, S8:  | 625, S647, S                 | 661, S678, S    | 700, S731,              | S739, S740,        | 39005/1                      |  |
| Part A.1                     | Footnote C016 is modified:   |                              | , , ,           | ,                       |                    | 38905/1                      |  |
|                              | C016This frequency assignment  |                              |                 |                         |                    |                              |  |
|                              | 2345-2390 MHz was coordinate   |                              |                 |                         |                    |                              |  |
|                              | Frequency Coordinator, Alexandr<br>Fort Meade, MD, who also coord  |                              |                 |                         |                    |                              |  |
|                              | Flight Test Radio Coordinating Co  |                              |                 |                         |                    |                              |  |
|                              | this assignment is subject to such   |                              |                 |                         |                    |                              |  |
|                              | Management Office, Fort Meade, 1   | <u>MD</u> HQ USAI            | F Frequency C   | <del>Coordinator,</del> |                    |                              |  |
|                              | VA, as necessary to ensure compat  |                              |                 |                         |                    |                              |  |
|                              | Replaced C062 which had been acc   |                              |                 | evious revi             | sion.              | None                         |  |
| Part A.6                     | Four footnotes were deleted and one was modified:  S369 This assignment is in accordance with Section 8.2.44 of the NTIA Manual.   |                              |                 |                         | 38686/1            |                              |  |
|                              | S738 This assignment supports th   |                              |                 |                         | <del>Manual.</del> |                              |  |
|                              | S791This assignment supports   |                              |                 |                         | merly Mars         |                              |  |
|                              | Surveyor 2001 Orbiter) Communications System.  |                              |                 |                         |                    |                              |  |
|                              | S880 This assignment supports the NASA Mars Scout Lander System.   |                              |                 |                         |                    |                              |  |
|                              | S882 This assignment supports the NASA Phoenix Mars Scout System.  |                              |                 |                         | 200504             |                              |  |
|                              | Added new special note S404.   |                              |                 |                         | 38860/1<br>38721/1 |                              |  |
|                              | Modified the text of footnote S595:  S595This assignment shall expire upon completion of GPS Phase II space  |                              |                 |                         | 38/21/1            |                              |  |
|                              | projectsupports the GPS program.   |                              |                 |                         |                    |                              |  |
|                              | Added of four new special notes S932 through S936.   |                              |                 |                         | 38629/1            |                              |  |
|                              | Added new special note S937  |                              |                 |                         | 38786/1            |                              |  |
| Annex B                      |  |                              |                 |                         |                    |                              |  |
| Section B.1.1                | Corrected an error in the heading a  | nd data in the               | first row of th | ne table.               |                    | 38750/1                      |  |
|                              | RANGES OF AZIMUTHS TO BE AVOIDED Southern Hemisphere   |                              |                 |                         |                    |                              |  |
|                              | Latitude of Terrestrial Station  | From                         | To              | From                    | То                 |                              |  |
|                              | ( <u>NS</u> )  | 88.50 <del>0</del>           | 91.50           | 268.50                  | 271.50             |                              |  |
|                              | 0 88.50 <del>0</del> 91.50 268.50 271.50   |                              |                 |                         |                    |                              |  |
| Annex D                      |  |                              |                 |                         |                    |                              |  |
| Γable 3                      | Updated the address information for the AF Spectrum Management Office (AFSMO).   |                              |                 |                         | 38905/1            |                              |  |
| Figure 5                     | Added a new image for Figure 5   |                              |                 |                         | 38952/1            |                              |  |
| Annex F                      | Addadasassis statis  |                              |                 |                         |                    | 20080/1                      |  |
| Part F.1                     | Added new text to this part:   |                              |                 |                         | 39089/1            |                              |  |
|                              | 2. During the review the agency concerned will determine for each frequency assignment:  |                              |                 |                         |                    |                              |  |
|                              | a. Whether the assignme and,   |                              |                 |                         |                    |                              |  |
|                              | b. if so, whether other exist  | sting assignm                | ents will meet  | the require             | ments; and,        |                              |  |

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| c. if not, whether the justification for and description of the assignment under review, are still accurate; and, d. if so, whether the assignment is completely up to date; e. Each federal agency will maintain the contact information of the person |   |  |              |         |  |
|   | who validated that the radio frequency is still in use. This information will include their name and date of verification for each 5 year or 10 year review and will be |  |              |         |  |
|   |   |  |              |         |  |
| Annex G   | accessible to the FAS representative.   |  |              |         |  |
| Part G.1  | Added an Abbreviation for the Federal   | Housing Finance Agency.                          |              | 38720/1 |  |
|   | Agency  | Bureau   | Abbreviation |         |  |
|   | Federal Mediation and Conciliation<br>Service   |  | FMCS         |         |  |
|   | Federal Deposit Insurance<br>Corporation  |  | FDIC         |         |  |
|   | Federal Housing Finance Agency  |  | FHFA         |         |  |
|   |   | Office of Inspector General                      | <u>OIG</u>   |         |  |
|   | Federal Reserve System  |  | FRS          |         |  |
| Part G.1  | Agency  | Bureau   | Abbreviation | 38953/1 |  |
|   | Army, Department of the   |  | AR           |         |  |
|   |   | AFMO CONUS                                       | AC           |         |  |
|   |   | United States Army, Alaska                       | AK           |         |  |
|   |   | Army Spectrum  Management Office (outside  US&P) | AR           |         |  |
|   |   | Corps of Engineers                               | CE           |         |  |
|   |   | Defense Information Systems Agency               | DISA         |         |  |
|   |   | Military District of<br>Washington               | DW           |         |  |
|   |   | AFC, State of Arizona                            | HU           |         |  |
|   |   | U.S. Army (State of Hawaii)                      | HW           |         |  |
|   |   | Satellite /Communications                        | SAT          |         |  |
|   |   | U.S. Army Pacific (does not                      | PA           |         |  |
|   |   | include Hawaii) AFC, White Sands Missile         | WS           |         |  |
|   | Range WS  |  |              |         |  |
| Part G.5  | Revised the code for <b>DEC</b> Decibel Products Inc. dbSpectra Systems.  |  |              |         |  |
| Annex L   |   |  |              |         |  |
| Part L.3  | Modified text concerning the military of  | lepartment addresses.                            |              | 38907/2 |  |

(Last Page in the Summary)