The Honorable Tom Wheeler  
Chairman  
Federal Commissions Commission  
445 12th Street, SW  
Washington, DC 20554

RE: Notice of Estimated Relocation or Sharing Costs and Timelines for the 1695-1710 MHz and 1755-1780 MHz Bands

Dear Chairman Wheeler:

Pursuant to Section 113(g)(4)(A) of the National Telecommunications and Information Administration (NTIA) Organization Act, as amended (47 U.S.C. § 923(g)(4)(A)), please find enclosed the initial estimated relocation or sharing costs and timelines for the 1695-1710 MHz and the 1755-1780 MHz spectrum bands (eligible frequencies). NTIA, on behalf of the eligible federal entities listed in Attachment A, hereby notifies the Federal Communications Commission (FCC) of these initial cost and timeline estimates, which must occur at least six (6) months prior to commencement of the FCC’s auction of the eligible frequencies. In addition, pursuant to Section 113(g)(5) of the NTIA Organization Act, as amended (47 U.S.C. § 923(g)(5)), NTIA is concurrently providing a copy of these estimates to the Committees on Appropriations and Energy and Commerce of the House of Representatives for approval, to the Committees on Appropriations and Commerce, Science, and Transportation of the Senate for approval, and to the Comptroller General.¹

On March 20, 2013, also pursuant to Section 113(g)(4)(A), the FCC notified NTIA of the FCC’s plans to commence an auction of the eligible frequencies as early as September 2014.² The federal entities listed in Attachment A submitted transition plans to NTIA and the Technical Panel established by Section 113(h)(3)(A) of the NTIA Organization Act, as amended (47 U.S.C. § 923(h)(3)(A)), and governed by Subpart B of Part 301, Title 47, Code of Federal Regulations. NTIA compiled and consolidated the enclosed estimated relocation or sharing costs and timelines based on the estimated costs and timelines contained in the agency transition plans that the Technical Panel found sufficient.³ Pursuant to Section 113(g)(4)(A), the initial estimates

¹ Unless disapproved within 30 days, the estimate shall be approved. If disapproved, NTIA may resubmit a revised initial estimate. 47 U.S.C. § 923(g)(5).

² See Letter from Julius Genachowski, Chairman, FCC, to Hon. Lawrence E. Strickling, Assistant Secretary for Communications and Information, Dep. of Commerce (Mar. 20, 2013). The FCC must notify NTIA at least 18 months prior to the commencement of the auction of eligible frequencies. 47 U.S.C. § 923(g)(4)(A).

³ See 47 U.S.C. § 923(h)(4). Not later than 120 days before the commencement of the auction of the eligible frequencies, NTIA will publish the publicly available transition plans on our website. See 47 U.S.C. § 923(h)(5); see also id. § 923(h)(7) and NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management, Annex O at § O.7 (Classified and Other Sensitive Information).
have been reviewed by the Office of Management and Budget (OMB).\(^4\) Attachment B1 provides the estimates for the 1695-1710 MHz band and Attachment B2 provides the estimates for the 1755-1780 MHz band.\(^5\)

NTIA commends the FCC’s representative on the Technical Panel for her diligence and valuable contributions, along with the OMB and NTIA representatives, to the entire transition planning and review effort. We look forward to further collaboration with the FCC and the agencies to ensure a timely and successful auction and a smooth transition. Conducting this auction is another important step in meeting the President’s goal of making available 500 megahertz of spectrum for commercial broadband services. If you have any questions regarding this matter, please contact Karl Nebbia, NTIA’s Associate Administrator of the Office of Spectrum Management, at 202-482-1850.

Sincerely,

[Signature]

Lawrence E. Strickling

Enclosures (3)

---

\(^4\) Independently, pursuant to 47 U.S.C. § 928(d)(2)(B)-(C), OMB is required to review the “appropriateness” of the initial estimates and to submit, at least 30 days before any funds can be transferred from the Spectrum Relocation Fund (SRF), to these congressional committees and to the Comptroller General a detailed plan describing specifically how the sums transferred from the SRF will be used to pay relocation or sharing costs, and the timelines for such relocation or sharing.

\(^5\) These attachments include, on behalf of the eligible federal entities, two “timelines” addressed in the statute. The “Transition Timeline” is the estimated maximum number of months from the start of the transition period (i.e., the date on which the auction concludes) and when relocation will be complete or when coordination within protection zones is expected to begin pursuant to applicable sharing criteria and arrangements. See 47 U.S.C. § 923(h)(2)(D)). The “Timeline for Funds” identifies the estimated time period during which each federal entity will begin using amounts from the SRF and when it will end the use of such funds (represented in the number of months after transfer from the SRF). See id. § 923(h)(2)(G).
Attachment A

1695-1710 MHz Eligible Federal Entities
- United States Department of Commerce
- United States Department of Defense, United States Air Force
- United States Department of Defense, United States Army
- United States Department of Defense, United States Navy/Marine Corps
- United States Department of the Interior

1755-1780 MHz Eligible Federal Entities
- National Aeronautics and Space Administration
- Other (Classified)
- United States Agency for International Development
- United States Capitol Police
- United States Department of Commerce
- United States Department of Defense, Defense Spectrum Organization/Chief Information Officer
- United States Department of Defense, United States Air Force
- United States Department of Defense, United States Army
- United States Department of Defense, United States Navy/Marine Corps
- United States Department of Energy
- United States Department of Homeland Security
- United States Department of Housing and Urban Development
- United States Department of Justice
- United States Department of the Interior, National Park Service
- United States Department of the Interior, United States Geological Service
- United States Department of the Treasury
- United States Department of Transportation, Federal Aviation Administration
- United States Department of Veterans Affairs
### Attachment B1

**Initial Estimated Costs and Timelines for the 1695-1710 MHz Band**

(5/12/2014)

<table>
<thead>
<tr>
<th>Entity</th>
<th>MetSat</th>
<th>GOES-R</th>
<th>Radiosondes</th>
<th>Timeline for Funds** (months)</th>
<th>Total Estimated Costs ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entity</strong></td>
<td><em><em>TTL</em> (mos.)</em>*</td>
<td><strong>Costs ($M)</strong></td>
<td><em><em>TTL</em> (mos.)</em>*</td>
<td><strong>Costs ($M)</strong></td>
<td><em><em>TTL</em> (mos.)</em>*</td>
</tr>
<tr>
<td>DOC</td>
<td>39</td>
<td>179.474</td>
<td>N/A</td>
<td>3.690</td>
<td>N/A</td>
</tr>
<tr>
<td>DOD Air Force</td>
<td>39</td>
<td>88.976</td>
<td>N/A</td>
<td>3.690</td>
<td>N/A</td>
</tr>
<tr>
<td>DOD Army</td>
<td>39</td>
<td>64.121</td>
<td>N/A</td>
<td>3.690</td>
<td>N/A</td>
</tr>
<tr>
<td>DOD Navy/MC</td>
<td>39</td>
<td>76.344</td>
<td>N/A</td>
<td>3.690</td>
<td>N/A</td>
</tr>
<tr>
<td>DOI</td>
<td>39</td>
<td>34.325</td>
<td>N/A</td>
<td>3.690</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total Estimated Costs (SM)</strong></td>
<td><strong>443.240</strong></td>
<td><strong>3.690</strong></td>
<td><strong>80.139</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Federal Entity Abbreviations

- **DOC**: Department of Commerce
- **DOD Army**: Department of Defense, United States Army
- **DOD Navy/MC**: Department of Defense, United States Navy/Marine Corps
- **DOD Air Force**: Department of Defense, United States Air Force
- **DOI**: Department of the Interior

### System Description

- **MetSat**: Ground receive sites for Meteorological Satellites
- **GOES-R**: Geostationary Operational Environmental Satellite
- **Radiosondes**: Upper-air sensors used in weather forecasting

---

* The "Transition Timeline" (TTL) is the estimated maximum number of months from the start of the transition period (the date on which the auction concludes) and when coordination within protection zones is expected to begin pursuant to applicable sharing criteria and arrangements. The conclusion of the auction is the date on which an auction of eligible frequencies concludes in accordance with Section 309(j)(16)(B) of the Communications Act of 1934, as amended.

** The "Timeline for Funds" identifies the estimated maximum time period during which the federal entity will use amounts received from the Spectrum Relocation Fund (SRF) for these systems (represented by the number of months after transfer from the SRF when the entity estimates it will complete using SRF funds).
## Initial Estimated Costs and Timelines for the 1755-1780 MHz Band
(5/12/2014)

### Table: Initial Estimated Costs and Timelines for the 1755-1780 MHz Band

<table>
<thead>
<tr>
<th>Entity</th>
<th>Microwave</th>
<th>TRR</th>
<th>ACTS</th>
<th>PCM</th>
<th>Video</th>
<th>TT&amp;C (SatOps)</th>
<th>ANM</th>
<th>Rebooter</th>
<th>UAS</th>
<th>Misc. Systems</th>
<th>Other Costs (SM)</th>
<th>Timeline for Funds* (months)</th>
<th>Total Estimated Costs (SM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOD Army</td>
<td>24</td>
<td>43.260</td>
<td>22</td>
<td>12.576</td>
<td>44</td>
<td>41.177</td>
<td>15</td>
<td>12.982</td>
<td>44</td>
<td>233.042</td>
<td>47</td>
<td>366.617</td>
<td>86</td>
</tr>
<tr>
<td>DOD Navy/MC</td>
<td>66</td>
<td>157.569</td>
<td>63</td>
<td>12.350</td>
<td>44</td>
<td>41.177</td>
<td>15</td>
<td>12.982</td>
<td>44</td>
<td>233.042</td>
<td>47</td>
<td>366.617</td>
<td>86</td>
</tr>
<tr>
<td>DOD Air Force</td>
<td>66</td>
<td>164.157</td>
<td>66</td>
<td>7.793</td>
<td>12</td>
<td>24.966</td>
<td>120</td>
<td>348.427</td>
<td>66</td>
<td>4.684</td>
<td>12</td>
<td>0.150</td>
<td>120</td>
</tr>
<tr>
<td>DOD DIS/ICT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DHS</td>
<td>26</td>
<td>4.260</td>
<td>42</td>
<td>499.691</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.1100</td>
</tr>
<tr>
<td>DOJ</td>
<td>20</td>
<td>7.000</td>
<td>42</td>
<td>1089.284</td>
<td>36</td>
<td>2.960</td>
<td>36</td>
<td>8.086</td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>1,045,320</td>
</tr>
<tr>
<td>DOT</td>
<td>22</td>
<td>0.450</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOT USGS</td>
<td>36</td>
<td>37.088</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>DOI NPS</td>
<td>30</td>
<td>8.406</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>DOT FAA</td>
<td>12</td>
<td>0.433</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>HUD</td>
<td>24</td>
<td>0.024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Treasury</td>
<td>12</td>
<td>7.891</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>VA</td>
<td>13</td>
<td>0.275</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>USDA</td>
<td>11</td>
<td>0.150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>USC</td>
<td>12</td>
<td>0.050</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>Total Estimated Costs (SM)</td>
<td>95,120</td>
<td>175.269</td>
<td>80.852</td>
<td>41.177</td>
<td>1,604.434</td>
<td>25.948</td>
<td>484.834</td>
<td>136.349</td>
<td>809.876</td>
<td>1,058.417</td>
<td>6,617.932</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
- **Federal Entity Abbreviations:**
  - DOD Army: Department of Defense, United States Army
  - DOD Navy/MC: Department of Defense, United States Navy/Marine Corps
  - DOD Air Force: Department of Defense, United States Air Force
  - DOD DIS/ICT: Department of Defense, Defense Information Systems Agency
  - DHS: Department of Homeland Security
  - DOI: Department of the Interior
  - DOJ: Department of Justice
  - DOT: Department of Transportation
  - USGS: United States Geological Survey
  - EPA: Environmental Protection Agency
  - NASA: National Aeronautics and Space Administration
  - NRC: Nuclear Regulatory Commission
  - OPM: Office of Personnel Management
  - SEC: Department of Commerce
  - SFC: General Services Administration
  - USACE: United States Army Corps of Engineers
  - USCG: United States Coast Guard
  - USCP: United States Capitol Police

- **System Description:***
  - Microwave: Fixed-Point-to-Point Microwave Systems
  - TRR: Tactical Radio Relay
  - ACTS: Air Combat Training Systems
  - PCM: Precision Guided Munitions
  - Video: Video Surveillance
  - TT&C (SatOps): Satellite Telecommand, Tracking and Command (TT&C) Operations
  - Aeronautical Mobile Termina l
  - Aeronautical Mobile Telecommunication
  - Robotics: Land Robotic Video Systems
  - UAS: Unmanned Aerial Systems
  - Misc Systems: Operations other than those described above, including testing, training, and exercises involving Electronic Warfare, use of Software Defined Radio systems, and Tactical Targeting Network Technology.

- **Other Costs:** Estimated costs not directly tied to a particular system, such as for transition support and program management identified by the federal entity. (May include classified systems.)

---

*The "Transition Timeline" (TTL) is the estimated maximum number of months from the start of the transition period (the date on which the auction concludes) and when reclassification will be complete or when coordination within protection zones is expected to begin pursuant to applicable sharing criteria and arrangements. The conclusion of the auction is the date on which an auction of eligible frequencies concludes in accordance with Section 209(j)(10)R of the Communications Act of 1934, as amended.*

**The "Timeline for Funds" identifies the estimated maximum time period during which the federal entity will use amounts received from the Spectrum Relocation Fund (SRF) for these systems (represented by the number of months after transfer from the SRF when the entity estimates it will complete using SRF funds).**