## **COMMERCIAL SPECTRUM ENHANCEMENT ACT (CSEA)**

Annual Progress Report For 2015



## **U.S. DEPARTMENT OF COMMERCE**

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#### COMMERCIAL SPECTRUM ENHANCEMENT ACT (CSEA) ANNUAL REPORT: Annual Progress Report for 2015

The National Telecommunications and Information Administration (NTIA) submits this report pursuant to Section 207 of the Commercial Spectrum Enhancement Act (CSEA), Title II of Pub. L. 108-494, which requires annual reporting on federal agencies' progress to relocate wireless communications systems from spectrum or share spectrum that has been reallocated to commercial use. This report provides details on two separate spectrum auctions conducted by the Federal Communications Commission (FCC) that included: 1) the 1710 to 1755 megahertz (MHz) band, and 2) the 1695-1710 MHz and 1755-1780 MHz bands. This report covers the period from January through December 2015.

As authorized by the CSEA, the Spectrum Relocation Fund (SRF) provides a centralized and streamlined funding mechanism through which federal agencies can recover the costs associated with relocating their radio communications systems or sharing spectrum reallocated and authorized to be auctioned for commercial purposes.

As required by Section 207 of the CSEA, this report describes the progress the federal agencies have made in adhering to relocation timelines. It also details, on a system-by-system basis, the costs estimated, funds transferred, and costs paid from the SRF. This report is based on data submitted by the federal agencies to NTIA.

Part I of this annual report documents the cumulative progress made by federal agencies to relocate operations out of the 1710-1755 MHz band from March 2007 through December 2015.

Part II of this annual report contains a new report — the report documents the agencies' activities to accommodate commercial use of the 1695-1710 MHz and 1755-1780 MHz bands that were auctioned in 2015. Part II contains slightly different information compared to Part I due to enactment of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112-96 (Tax Relief Act), that, among other things, modified the SRF provisions in the NTIA Organization Act. Notably, these modifications permit federal agencies to recover costs stemming from their action to enable spectrum to be shared or relocated based on an approved transition plan, as well as permit federal agencies to recover certain pre-auction costs, neither of which was permitted prior to the 2012 Tax Relief Act. Accordingly, Part II reflects transition costs, which include both relocation and sharing costs, as well as separate timelines associated with transitioning federal spectrum use and the expenditure of SRF funds.

#### PART I

#### RELOCATION OF FEDERAL RADIO SYSTEMS FROM THE 1710-1755 MHz SPECTRUM BAND: NINTH ANNUAL PROGRESS REPORT

In September 2006, the FCC concluded the first auction of licenses for Advanced Wireless Services (AWS) in the 1710-1755 MHz band paired with the 2110-2155 MHz band. In August 2008, the FCC held a second auction of licenses that were not sold in the first auction. The combined AWS auctions for the 1710-1755 MHz and 2110-2155 MHz bands raised over \$13.7 billion in net winning bids. Auction proceeds attributable to federal frequencies were deposited in the SRF in accordance with the CSEA. For the two auctions, a total of 115 different bidders participated and the FCC issued a total of 1,122 AWS licenses.

In February 2007, the Office of Management and Budget (OMB), in consultation with NTIA, submitted a report to Congress detailing a transfer of \$1.008 billion from the SRF to 12 federal agencies to relocate their wireless systems from the 1710-1755 MHz band. OMB transferred this amount to the agencies in March 2007. Between 2007 and 2012, OMB, consistent with the provisions of the CSEA, in consultation with NTIA, and after Congressional notification, made several additional transfers from the SRF to agencies to cover additional unanticipated relocation expenses.

In October 2008, OMB issued guidance to federal agencies participating in the SRF specifying the information they must provide when requesting additional resources or an extension of their approved project timeframes.<sup>1</sup> OMB directed the agencies to adhere to their original cost and timeline estimates to the extent possible. However, in unforeseen circumstances, where agencies need additional resources or time to vacate the auctioned spectrum, OMB, in consultation with NTIA, may approve changes to the timeframe and cost estimates associated with relocation of federal systems.

All 12 federal agencies have reported that they have ceased operations of their systems in the 1710-1755 MHz band, where required to do so, clearing the way for commercial licensees.<sup>2</sup> To date, six agencies (United States Department of Agriculture, Department of Housing and Urban Development, Department of Transportation / Federal Aviation Administration, National Aeronautics and Space Administration, Tennessee Valley Authority, and the United States Postal Service) have completed their relocation efforts and achieved comparable capability of systems by relocating to new frequency

<sup>&</sup>lt;sup>1</sup> "Spectrum Relocation Fund Guidance," M-09-01, (Oct. 14, 2008), available at <u>http://www.whitehouse.gov/sites/default/files/omb/assets/omb/memoranda/fy2009/m09-01.pdf</u>.

<sup>&</sup>lt;sup>2</sup> The exceptions are specified areas around federal facilities located at Yuma, Arizona and Cherry Point, North Carolina, which are protected indefinitely and for which AWS licensees shall be required to coordinate any operations that could permit mobile, fixed, and portable stations to operate. 47 C.F.R. § 27.1134.

assignments or by utilizing alternative technology. As required by the CSEA, NTIA has notified the FCC of these results.<sup>3</sup>

Of the remaining six agencies, four state that they are delayed beyond the previously planned date of 2015 for achieving comparable capability. The Department of Treasury reports that it now expects to achieve comparable capability in 2016 as it procures the necessary video surveillance equipment from the manufacturer. The Department of Defense (DOD), Department of Interior (DOI), and Department of Justice (DOJ) all report that they now expect to complete efforts to achieve comparable capability in 2017. The reasons for the changes are various civil construction and contractor delays for the DOD, administrative delays for the DOJ, and obtaining enhanced security at specific locations for the DOI. The Department of Energy (DOE) and Department of Homeland Security (DHS) continue to expect to achieve comparable capability in 2017. NTIA will notify the FCC when each of the remaining six agencies have completed the relocation effort and achieved comparable capability.

For the 12-month period ending December 2015, the eligible federal agencies spent \$138 million dollars. This amount brings these agencies' cumulative spending to \$1.3 billion, which represents approximately 84 percent of the total SRF transfers to the agencies of \$1.55 billion. Some agencies have returned or plan to return excess relocation funds, while other agencies will continue to expend SRF funds until they have established comparable capabilities.<sup>4</sup> The attachments to Part I of this report detail the total actual costs incurred (cumulative outlays) by each federal agency from the time SRF funds were first made available in March 2007 through December 2015. Specifically, as in previous annual progress reports, Attachment A provides — by department, agency, or bureau — an overall summary of relocation activities since March 2007. The summary provides the estimated relocation timelines, status of the progress made in adhering to these timelines, estimated relocation costs, cumulative outlays, and amount transferred from the SRF. Attachment B conveys this information on a system-by-system basis for each department, agency, or bureau.

<sup>&</sup>lt;sup>3</sup> In addition, bureaus within the Department of Defense (DOD) (DoD-wide Support, USAF, and Navy); Department of Energy (DOE) (National Nuclear Security Administration (NNSA), Bonneville Power Administration (BPA), and DOE Headquarters)); Department of Interior (DOI) (Bureau of Reclamation (BOR) and Geological Survey (GS)); Department of Homeland Security (DHS) (United States Secret Service (USSS)); and the Department of Justice (DOJ) (DOJ Wide Support) stated that they have completed relocation efforts and achieved comparable capability of their systems. The notification to the FCC will be submitted for each agency once all bureaus within that agency have informed NTIA that they have completed relocation efforts and reached comparable capability.

<sup>&</sup>lt;sup>4</sup> For example, the DOI has returned more than \$2.5 million.

## Attachment A

## 1710 - 1755 MHz Band

# Summary of Relocation Activities By Department, Agency, and/or Bureau

## Summary of Relocation Activities

Department/Agency	Bureau	Estimated Relocation Timeframe (Months) <sup>1</sup>	Status	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Cumulative Outlays
United States Department of Agriculture (USDA)	Forest Service	36	Completed <sup>3</sup>	\$21,578,486	\$21,578,486	\$11,451,623
Department of Defense (DOD)	Air Force	48	Completed <sup>4</sup>	\$106,753,481	\$106,753,481	\$88,062,944
DOD	Army	36	On Time	\$15,933,043	\$15,933,043	\$12,419,507
DOD	Navy	36	Completed <sup>4</sup>	\$134,465,000	\$134,465,000	\$65,674,647
DOD	DOD-wide Support	72	Completed <sup>4</sup>	\$98,200,000	\$98,200,000	\$90,934,761
DOD	Subtotal			\$355,351,524	\$355,351,524	\$257,091,859
Department of Energy	National Nuclear Security Administration (NNSA)					
(DOE)		24	Completed <sup>8</sup>	\$10,900,000	\$10,900,000	\$10,900,000
DOE	Bonneville Power Administration (BPA)	72	Completed <sup>8</sup>	\$48,627,399	\$48,627,399	\$40,337,116
DOE	Southwestern Power Administration (SWPA)	24	On Time	\$8,091,360	\$42,821,360 <sup>5,6</sup>	\$28,303,381
DOE	Western Area Power Administration (Western)	36	On Time	\$108,202,200	\$108,202,200	\$83,147,582
DOE	DOE Headquarters	72	Completed <sup>8</sup>	\$1,000,000	\$1,650,000 <sup>7</sup>	\$1,650,000
DOE	Subtotal			\$176,820,959	\$212,200,959	\$164,338,079

<sup>1</sup>All timeframes shown in the tables contained in this attachment represent the originally approved timeframes for relocating federal operations from the band for each agency.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) report to Congress.

<sup>3</sup> USDA reported it has completed the relocation effort and reached comparable capability.

<sup>4</sup> DOD reported USAF, Navy, and DOD-wide Support has completed the relocation effort and reached comparable capability.

<sup>5</sup> As indicated in the May 12, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$17,730,000 from the SRF to DOE/SWPA in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>6</sup>As in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$17,000,000 from the SRF to DOE/SWPA in accordance with the provisions of the CSEA.

<sup>7</sup> As indicated in the May 12, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$650,000 from the SRF to DOE Headquarters in accordance with the provisions of the CSEA.

<sup>8</sup> DOE reported NNSA, BPA, and DOE Headquarters have completed the relocation effort and reached comparable capability.

## Summary of Relocation Activities

Department/Agency	Bureau	Estimated Relocation Timeframe (Months)	Status	Estimated Relocation Cost <sup>1</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Cumulative Outlays
Department of Homeland						
Security (DHS)	Customs and Border Protection (CBP)	12	On Time	\$74,349,990	$87,858,000^2$	\$38,500,834
DHS	Immigration and Customs Enforcement (ICE)	12	On Time	\$3,559,281	\$160,116,206 <sup>3,4</sup>	\$131,255,502
DHS	United States Secret Service (USSS)	12	Completed <sup>5</sup>	\$105,800	\$15,179,062 <sup>6</sup>	\$15,179,062
DHS	DHS-wide Support	12	On Time	\$11,979,761	\$19,086,5727 <sup>7</sup>	\$19,028,715
DHS	Subtotal			\$89,994,832	\$282,239,840	\$203,964,113
Department of Housing and						
Urban Development	Inspector General	24	Completed <sup>8</sup>	\$21,115	\$21,115	\$21,115
Department of the Interior						
(DOI)	Bureau of Reclamation (BOR)	36	Completed <sup>9</sup>	\$4,550,000	$$8,000,000^{10}$	\$5,495,192
DOI	Geological Survey (GS)	36	Completed <sup>9</sup>	\$6,158,949	\$6,158,949	\$6,158,949
DOI	National Park Service (NPS)	36	On Time	\$14,703,000	$20,282,185^{10}$	\$19,217,847
DOI	Subtotal			\$25,411,949	\$34,441,134	\$30,871,988
	Bureau of Alcohol, Tobacco, Firearms, and Explosives					
Department of Justice (DOJ)	(ATF)	36	On Time	\$48,024,000	\$86,174,000 <sup>12,13,14</sup>	\$86,018,339
DOJ	Federal Bureau of Investigation (FBI)	36	On Time	\$139,225,000	\$283,940,000 <sup>15,16</sup>	\$281,588,820
DOJ	Drug Enforcement Administration (DEA)	36	On Time	\$74,772,000	\$185,510,00017,18,19	\$184,649,217
DOJ	DOJ-Wide Support	36	Completed <sup>20</sup>	\$800,000	\$800,000	\$800,000
DOJ	Subtotal		1 1	\$262,821,000	\$556,424,000	\$553,056,376

<sup>1</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) report to Congress.

<sup>2</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$13,508,010 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

<sup>3</sup> As indicated in the November 16, 2007 OMB report, OMB made a subsequent transfer of \$35,570,000 from the SRF to DHS/ICE in accordance with the provisions of the CSEA.

<sup>4</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$120,986,925 from the SRF to DHS/ICE in accordance with the provisions of the CSEA. <sup>5</sup> DHS reported USSS has completed the relocation effort and reached comparable capability.

<sup>6</sup>As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$15,073,262 from the SRF to DHS/USSS in accordance with the provisions of the CSEA.

<sup>7</sup>As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$7,106,811 from the SRF to DHS/Wide Support in accordance with the provisions of the CSEA.

<sup>8</sup> The Department of Housing and Urban Development reported it has completed the relocation effort and reached comparable capability.

<sup>9</sup> DOI reported BOR and GS has completed the relocation effort and reached comparable capability, and BOR has returned \$2,504,808 to the SRF.

<sup>10</sup> As indicated in the August 27, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$3,450,000 from the SRF to DOI/BOR in accordance with the provisions of the CSEA.

<sup>11</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$5,579,185 from the SRF to DOI/NPS in accordance with the provisions of the CSEA.

<sup>12</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$17,312,000 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>13</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$14,041,000 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>14</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$6,797,000 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>15</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$23,730,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>16</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$120,985,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>17</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$14,075,000 from the SRF to DOJ/DEA in accordance with the provisions of the CSEA.

<sup>18</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$55,687,000 from the SRF to DOJ/DEA in accordance with the provisions of the CSEA.

<sup>19</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$40,976,000 from the SRF to DOJ/DEA in accordance with the provisions of the CSEA.

<sup>20</sup> DOJ reported DOJ Wide Support has completed the relocation effort and reached comparable capability.

## Summary of Relocation Activities

Department/Agency	Bureau	Estimated Relocation Timeframe (Months)	Status	Estimated Relocation Cost <sup>1</sup>	Total Transferred From the Spectrum Relocation Fund (SRF)	Cumulative Outlays
Department of Transportation (DOT)	Federal Aviation Administration (FAA)	46	Completed <sup>2</sup>	\$58,062,020 <sup>3</sup>	\$58,062,020	\$57,872,024
Treasury Treasury Treasury	Internal Revenue Service Treasury Inspector General for Tax Administration Subtotal	28 28	On Time On Time	\$4,409,000 \$892,000 \$5,301,000	\$4,409,000 \$892,000 \$5,301,000	\$4,155,645 \$831,935 \$4,987,580
National Aeronautics and Space Administration (NASA)	National Aeronautics and Space Administration	24	Completed <sup>4</sup>	\$740,000	\$740,000	\$740,000
Tennessee Valley Authority (TVA)	Tennessee Valley Authority	48	Completed <sup>5</sup>	\$10,687,857	\$15,751,057 <sup>6,7</sup>	\$15,751,057
United States Postal Service (USPS)	Inspection Service	12	Completed <sup>8</sup>	\$1,761,760	\$8,333,760 <sup>9</sup>	\$8,333,760
Total				\$1,008,552,502	\$1,550,444,895	\$1,308,300,562

<sup>1</sup>Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress.

<sup>2</sup> DOT/FAA reported it has completed the relocation effort and reached comparable capability.

<sup>3</sup> \$58,062,020 has been made available to DOT/FAA from the SRF, consistent with the National Telecommunications and Information Administration report to the Federal Communications Commission and Congress, dated December 2005, and the Congressional Notification from OMB, dated February 16, 2007. In providing information for this report, the FAA estimated relocation costs of \$58,062,027, and appears to include rounding errors associated with individual systems cost; thus, these totals may not be consistent. See Attachment B at B-18 for details.

<sup>4</sup> NASA reported it has completed the relocation effort and reached comparable capability.

<sup>5</sup> TVA reported it has completed the relocation effort and reached comparable capability.

<sup>6</sup> As indicated in the August 27, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$3,333,200 from the SRF to TVA in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>7</sup> As indicated in the December 15, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$1,730,000 from the SRF to TVA in accordance with the provisions of the CSEA.

<sup>8</sup> USPS reported it has completed the relocation effort and reached comparable capability.

<sup>9</sup>As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$6,572,000 from the SRF to USPS in accordance with the provisions of the CSEA.

## Attachment B

## 1710 - 1755 MHz Band

## Summary of Relocation Activities

By System

## United States Department of Agriculture (USDA)

#### Forest Service

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
USDA 001	Apache-Sitgreaves MW	18	Completed	\$960,000	\$960,000	-\$960,000	\$0	$0^{4}$
USDA 002	Ashley MW	36-48	Completed	\$397,000	\$397,000	\$0	\$397,000	\$892,801
USDA 003	Boise MW	36-48	Completed	\$442,000	\$442,000	\$0	\$442,000	\$20,581
USDA 004	Challis MW	36-48	Completed	\$746,000	\$746,000	\$0	\$746,000	\$636,595
USDA 005	Cibola MW	36	Completed	\$843,000	\$843,000	-\$843,000	\$0	$$0^4$
USDA 006	Coconino MW	24	Completed	\$527,000	\$527,000	-\$527,000	\$0	$$0^4$
USDA 007	Coronado MW	24	Completed	\$92,000	\$92,000	-\$92,000	\$0	$$0^4$
USDA 008	Dixie MW	0	Completed	\$0	\$0	\$0	\$0	\$0 <sup>5</sup>
USDA 009	Fishlake MW	24	Completed	\$675,000	\$675,000	-\$675,000	\$0	$$0^4$
USDA 010	Gila MW	24	Completed	\$1,049,000	\$1,049,000	-\$1,049,000	\$0	$$0^{4}$
USDA 011	IPNF MW	36	Completed	\$1,138,900	\$1,138,900	-\$1,138,900	\$0	$0^{4}$
USDA 012	Kaibab MW	24	Completed	\$509,000	\$509,000	-\$509,000	\$0	$0^{4}$
USDA 013	Lagrande MW	24	Completed	\$241,000	\$241,000	-\$241,000	\$0	$$0^4$
USDA 014	Lassen MW	36-48	Completed	\$818,000	\$818,000	\$0	\$818,000	\$1,056,171
USDA 015	Los Padres MW	36-48	Completed	\$107,000	\$107,000	\$0	\$107,000	\$2,700
USDA 016	Manti-Lasal MW	24	Completed	\$416,000	\$416,000	-\$416,000	\$0	$$0^4$
USDA 017	Ochoco MW	36	Completed	\$235,000	\$235,000	-\$235,000	\$0	$$0^4$
USDA 018	Payette MW	36	Completed	\$418,000	\$418,000	-\$418,000	\$0	$$0^4$
USDA 019	Plumas MW	36-48	Completed	\$1,925,000	\$1,925,000	\$0	\$1,925,000	\$1,589,900
USDA 020	Salmon MW	36-48	Completed	\$354,000	\$354,000	\$0	\$354,000	\$3,764
USDA 021	Sierra MW	36-48	Completed	\$1,072,000	\$1,072,000	\$0	\$1,072,000	\$10,029
USDA 022	Stanislaus MW	36-48	Completed	\$733,000	\$733,000	\$0	\$733,000	\$0
USDA 023	Toiyabe MW	36-48	Completed	\$448,000	\$448,000	\$0	\$448,000	\$695,306
USDA 024	Tonto MW	36	Completed	\$672,000	\$672,000	-\$672,000	\$0	$$0^4$
USDA 025	Uinta MW	24	Completed	\$636,000	\$636,000	-\$636,000	\$0	$$0^{4}$
USDA 026	Wassatch MW	24	Completed	\$1,206,000	\$1,206,000	-\$1,206,000	\$0	$$0^{4}$
USDA 027	Winema MW	0	Completed	\$0	\$0	\$0	\$0	\$0 <sup>5</sup>
USDA 028	Additional Funds	36	Completed	\$4,918,586	\$4,918,586	\$0	\$4,918,586	\$6,543,776
			Total	\$21,578,486	\$21,578,486	-\$9,617,900	\$11,960,586	\$11,451,623

<sup>1</sup> USDA reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>3</sup> Federal agencies indicate they are transferring funds between systems due to either higher or lower than estimated costs to relocate, which does not affect the total amount received from the Spectrum Relocation Fund (SRF).

<sup>4</sup> USDA indicated the system has been decommissioned. It does not require replacement, and it will return the funds to the SRF.

<sup>5</sup> USDA indicated the system has been deleted, and did not require funds from the SRF.

### Department of Defense

#### United States Air Force (USAF)<sup>1</sup>

System Number	System Name <sup>2</sup>	Estimated Relocation Timeframe (Months)	Status <sup>3,4</sup>	Estimated Relocation Cost <sup>5</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>6</sup>	Adjusted Total	Cumulative Outlays
USAF0001	Precision Guided Munitions – Aircraft Procurement	48	Completed	\$40,000,000	\$40,000,000	-\$3,708,008	\$36,291,992	\$36,123,507
USAF0001	Precision Guided Munitions - Missile Procurement	48	Completed	\$60,000,000	\$60,000,000	-\$12,042,692	\$47,957,308	\$46,009,260
USAF0002	Edwards Microwave	36	Completed	\$157,100	\$157,100	-\$8,418	\$148,682	\$148,682
USAF0003	Luke Microwave	36	Completed	\$1,212,000	\$1,212,000	-\$333,547	\$878,453	\$878,453
USAF0004	Nellis Microwave	36	Completed	\$600,000	\$600,000	\$0	\$600,000	\$600,000
USAF0005	Eastern Range	36	Completed	\$2,810,381	\$2,810,381	-\$310,521	\$2,499,860	\$2,417,957
USAF0006	Eglin Microwave	36	Completed	\$1,974,000	\$1,974,000	-\$144	\$1,973,856	\$1,885,085
			Total	\$106,753,481	\$106,753,481	-\$16,403,330	\$90,350,151	\$88,062,944

<sup>1</sup>USAF reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> USAF has one assignment (threat simulator) that operates on a non-interference basis. This does not require funds from the Spectrum Relocation Fund (SRF).

<sup>3</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists the USAF as having 36 systems. The correct number should be six systems, which encompass the frequency assignments that the USAF previously reported as 36 systems. One of the six systems is funded through two accounts. There is no impact on the total resources required to vacate the band since the number of frequency assignments to be vacated remains unchanged from the February 2007 OMB Report to Congress.

<sup>4</sup>USAF reported it has completed the relocation effort and reached comparable capability.

<sup>5</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>6</sup>Column denotes that agencies have transferred funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the SRF by the agency.

### Department of Defense

#### Department of the Army (Army)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>4</sup>	Adjusted Total	Cumulative Outlays
AR0001	1 – 11 <sup>th</sup> Aviation Ft. Rucker	335	On Time	\$752,000	\$752,000	\$1,694,759	\$2,446,759	\$2,078,996
AR0002	Army Material Command	24	On Time	\$1,185,000	\$1,185,000	-\$876,082	\$308,918	\$308,918
AR0003	DCIS	36	On Time	\$128,000	\$128,000	\$5,142	\$133,142	\$133,142
AR0004	United States Army Corp of Engineers (USACE) – Kansas City District	36	On Time	\$65,043	\$65,043	-\$65,043	\$0	\$0
AR0005	USACE – New England District	36	On Time	\$161,000	\$161,000	\$450,215	\$611,215	\$611,215
AR0006	USACE – Portland District <sup>6</sup>	36	On Time	\$5,484,000	\$5,484,000	\$1,540,834	\$7,024,0834	\$5,663,954
AR0007	USACE – Sacramento District <sup>7</sup>	18	On Time	\$7,032,000	\$7,032,000	-\$3,970,040	\$3,061,960	\$3,061,960
AR0008	USACE – Tulsa District	36	On Time	\$32,000	\$32,000	-\$32,000	\$0	\$0
AR0009	White Sands Missile Range	24	On Time	\$464,000	\$464,000	-\$464,000	\$0	\$0
AR0010	PEO – EIS – PM Digital Wideband Transmission System	08	On Time	\$630,000	\$630,000	-\$19,240	\$610,760	\$561,321
			Total	\$15,933,043	\$15,933,043	-\$1,735,435	\$14,197,588	\$12,419,507

<sup>1</sup>The Army indicated these systems have been relocated from the 1710-1755 MHz band, although funds may continue to be used to implement the transition.

<sup>2</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists the Army as having 31 systems. The correct number should be nine systems, which encompass the frequency assignments that the Army previously reported as 31 systems, plus one account for shared program management and engineering costs, as reported. There is no impact on the total resources acquired to vacate the band since the number of frequency assignments to be vacated remains unchanged from the February 2007 OMB Report to Congress.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>4</sup> Column denotes agencies have transferred funds between systems due to either higher or lower than estimated relocation costs and this action does not affect the total amount received from the Spectrum Relocation Fund.

<sup>5</sup> The original four assignments in this system were relocated within 24 months. Two additional assignments (AR91551 & AR91552) were added to this system for management purposes. These two assignments were on a 33-month timeline, which has been met. All six assignments in this system have been deleted. The original estimate of \$752,000 for this system was significantly underestimated. Further, adding assignments AR91551 & AR91552 to this system required additional funds. A total of \$1,698,104 had to be added to this project from other Army systems whose costs were overestimated. <sup>6</sup> The Army indicated that assignments AR819881 and AR848053 had been erroneously identified as assignments that could be relocated without SRF funds and have added these two assignments to this system for funding and project management. The Army notes funding in the amount of \$1,634,000 was added to this system for these two assignments.

<sup>7</sup> The Army indicated that it has requested the National Telecommunications and Information Administration to delete all four of the frequency assignments for this system. The Army states the remaining estimated funds in the amount of \$3,754,391 were not required for this system and these surplus funds were made available for shortfalls in the estimated cost to relocate other Army systems.

<sup>8</sup> The Army indicated this was mistakenly reported as 36 months in the March 2008 First Annual Relocation Report to Congress. AR0010 was established as an Army overhead account for shared program management and engineering costs, which after an initial trial period in 2007, the Army deemed was not necessary. The Army reported it will not spend all the funds in account AR0010 for shared program management and engineering costs and indicated that it will fund the necessary shared program management and engineering costs out of the \$15,303,043 in Other Procurement funds made available for the entire effort. However, Army used some of these Operations and Maintenance (O&M) funds to pay for temporary path leases necessary to maintain uninterrupted operations during the relocation process for selected assignments. Fiscal law prohibited to use Other Procurement funds for this purpose, which made the use of O&M funds out of the AR0010 account necessary.

## Department of Defense

#### Department of the Navy (DON)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From the Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
USN0001	C,AYDST402S	36	Completed	\$134,000	\$134,000	\$875,000	\$1,009,000	\$ 1,009,000
USN0002	C,AYDST-400 SERIES	36	Completed	\$13,938,047	\$13,938,047	-\$259,796	\$13,678,251	\$ 13,678,251
USN0003	C,PADVTL-2A	36	Completed	\$3,121,449	\$3,121,449	\$0	\$3,121,449	\$ 3,121,449
USN0004	C,AVKDRC-96	36	Completed	\$296,000	\$296,000	\$88,721	\$384,721	\$ 384,721
USN0005	C,CNNCTM-UHF-10V	36	Completed	\$21,000	\$21,000	\$502,383	\$523,383	\$ 523,383
USN0006	C,CNCCTM-UHF-10V	36	Completed	\$446,208	\$446,208	\$0	\$446,208	\$ 446,208
USN0007	C,AVKDR2C-96	36	Completed	\$446,208	\$446,208	\$0	\$446,208	\$ 446,208
USN0008	C,ACC-AT3620LV	36	Completed	\$1,338,621	\$1,338,621	\$0	\$1,338,621	\$ 1,338,621
USN0009	C,MOT-MTG1010A	36	Completed	\$271,000	\$271,000	\$85,000	\$356,000	\$ 356,000
USN0010	C,ERDEVT-3	36	Completed	\$892,414	\$892,414	\$0	\$892,414	\$ 892,414
USN0011	S,SMWVTX-36L20ADP	36	Completed	\$21,000	\$21,000	\$7,735	\$28,735	\$ 28,735
USN0012	G,HORACEVIDEO LINK	36	Completed	\$21,000	\$21,000	\$30,750	\$51,750	\$ 51,750
USN0013	C,PADVTL-2A	36	Completed	\$892,414	\$892,414	\$0	\$892,414	\$ 892,414
USN0014	G,HORACE VIDEO LINK	36	Completed	\$249,400	\$249,400	\$0	\$249,400	\$ 249,400
USN0015	C,CNCCTM-UHF-10V	36	Completed	\$21,000	\$21,000	\$12,000	\$33,000	\$ 33,000
USN0016	C,AYD T400	36	Completed	\$997,600	\$997,600	\$0	\$997,600	\$ 997,600
USN0017	C,AYD T400	36	Completed	\$891,397	\$891,397	\$0	\$891,397	\$ 891,397
USN0018	C,AYD T400	36	Completed	\$446,207	\$446,207	\$0	\$446,207	\$ 446,207
USN0019	C,AYD T400	36	Completed	\$446,207	\$446,207	\$0	\$446,207	\$ 446,207
USN0020	C,AYD T400	36	Completed	\$446,207	\$446,207	\$0	\$446,207	\$ 446,207
USN0021	C,AYD T400	36	Completed	\$446,207	\$446,207	\$0	\$446,207	\$ 446,207
USN0022	C,AYD T400	36	Completed	\$892,414	\$892,414	\$0	\$892,414	\$ 892,414
USN0023	C,ACTMDR-5402	36	Completed	\$587,000	\$587,000	\$171,688	\$758,688	\$ 758,688
USN0024	C,MOT MR-200	36	Completed	\$229,000	\$229,000	\$0	\$229,000	\$ 229,000
USN00254	CLASSIFIED	36	Completed	\$44,146,000	\$44,146,000	-\$17,897,068	\$26,248,932	\$ 25,899,411
USN00254	HERP/HERO	36	Completed	\$1,235,000	\$1,235,000	\$-28,301	\$1,206,699	\$ 1,206,699
USN0025 <sup>4</sup>	CLASSIFIED	36	Completed	\$60,692,000	\$60,692,000	-\$51,128,074	\$9,563,926	\$ 8,663,056
USMC0001 <sup>5</sup>	C,LOE LMC-402D2	36	Completed	\$232,000	\$232,000	\$0	\$232,000	\$ 232,000
USMC0002 <sup>5</sup>	C,LOE LMC-402D2	36	Completed	\$468,000	\$468,000	\$0	\$468,000	\$ 468,000
USMC0003 <sup>5</sup>	C,LOE LMC-402D2	36	Completed	\$100,000	\$100,000	\$0	\$100,000	\$ 100,000
USMC0004 <sup>5</sup>	C,TBNTBT200LV	36	Completed	\$100,000	\$100,000	\$0	\$100,000	\$ 100,000
			Total	\$134,465,000	\$134,465,000	-\$67,539,962	\$66,925,038	\$65,674,647

<sup>1</sup> DON reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>3</sup> Column denotes agencies have transferred funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund.

<sup>4</sup> DON indicated this is one system funded through three accounts.

<sup>5</sup> USMC is the United States Marine Corps.

## Department of Defense (DOD)

#### DOD-wide Relocation Support (Research, Development, Test and Evaluation/Operation and Maintenance)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
DOD0001	Spectrum Relocation Management Office	72	Completed	\$21,700,000	\$21,700,000	-\$4,868,569	\$16,831,431	\$16,177,388
DOD0002	Spectrum Management Transition Initiative	72	Completed	\$48,500,000	\$48,500,000	-\$978,937	\$47,521,063	\$47,097,487
DOD0003	Spectrum Technology Test Bed	72	Completed	\$28,000,000	\$28,000,000	-\$72,746	\$27,927,254	\$27,659,886
			Total	\$98,200,000	\$98,200,000	-\$5,920,252	\$92,279,748	\$90,934,761

<sup>1</sup> DOD reported it has completed the relocation effort and reached comparable capability.
 <sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

## Department of Energy (DOE)

#### National Nuclear Security Administration (NNSA)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From the Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
1	OST - Remote Keying System, Replacement	24	Completed	\$180,000	\$180,000	$-\$180,000^4$	\$0	\$0
2	SNL - Portable Microwave, System and Laser Tracking Microwave	24	Completed	\$691,000	\$691,000	\$0	\$691,000	\$691,000
3	Pantex Admin System	24	Completed	\$870,000	\$870,000	\$1,500,000	\$2,370,000	\$2,370,000
4a	SNL - Laser Tracking Microwave	24	Completed	\$344,500	\$344,500	\$0	\$344,500	\$344,500
4b	SNL - Telecommand Link	24	Completed	\$384,500	\$384,500	\$0	\$384,500	\$384,500
5	OST - Microwave Link	24	Completed	\$385,000	\$385,000	\$360,000	\$745,000	\$745,000
6	SNL - Remote Control Development Link - Robotics Vehicle	24	Completed	\$240,000	\$240,000	\$0	\$240,000	\$240,000
7	LANL - Robotic Vehicle (Video / Audio)	24	Completed	\$360,000	\$360,000	-\$277,402	\$82,598	\$82,598
8	NSO - YMP Microwave System	24	Completed	\$840,000	\$840,000	-\$763,360	\$76,640	\$76,640
9	NSO - NV Teleoperated System	24	Completed	\$435,000	\$435,000	-\$236,591	\$198,409	\$198,409
10	YMP Seismic Link (Shoshone Mtn and Echo Peak, NV)	24	Completed	\$900,000	\$900,000	\$214,213	\$1,114,213	\$1,114,213
11	NSO - Helicopter Event Video	24	Completed	\$970,000	\$970,000	\$100,000	\$1,070,000	\$1,070,000
12	NSO - Backbone Microwave Link (Nevada Test Site and Angel Peak)	24	Completed	\$770,000	\$770,000	\$98,429	\$868,429	\$868,429
13	NSO - YMP Seismic Link (Yucca Mtn and Sober Peak, NV)	24	Completed	\$830,000	\$830,000	\$650,000	\$1,480,000	\$1,480,000
14	LLNL - Research Microwave between Tracy Airport and LLNL	24	Completed	\$360,000	\$360,000	\$0	\$360,000	\$360,000
15	LLNL - Water System Microwave Link (Livermore to Mocho)	24	Completed	\$890,000	\$890,000	-\$15,289	\$874,711	\$874,711
16	NNSA Inflation Indexed Reserve	24	Completed	\$1,450,000	\$1,450,000	-\$1,450,000	\$0	\$0
		•	Total	\$10,900,000	\$10,900,000	\$0	\$10,900,000	\$10,900,000

<sup>1</sup>DOE/NNSA reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>3</sup> Column denotes agencies have transferred funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund.

<sup>4</sup> DOE/NNSA indicated the system has been deleted and is no longer operating in the 1710-1755 MHz band. The funds shown have been transferred to System 5.

## Department of Energy (DOE)

#### Bonneville Power Administration (BPA)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
1	2N	36	Completed	\$4,896,239	\$4,896,239	\$0	\$4,896,239	\$4,252,435
2	4A	48	Completed	\$1,147,111	\$1,147,111	\$0	\$1,147,111	\$820,467
3	4D	60	Completed	\$1,727,645	\$1,727,645	\$500,000	\$2,227,645	\$2,051,269
4	D	48	Completed	\$2,815,160	\$2,815,160	\$0	\$2,815,160	\$2,215,222
5	Н	48	Completed	\$767,501	\$767,501	\$0	\$767,501	\$552,638
6	Ι	72	Completed	\$8,913,238	\$8,913,238	-\$500,000	\$8,413,238	\$7,151,635
7	N	24	Completed	\$8,589,111	\$8,589,111	\$83,506	\$8,672,617	\$8,415,391
8	PND AC00	48	Completed	\$4,712,537	\$4,712,537	\$250,720	\$4,963,257	\$3,004,466
9	PND D00	48	Completed	\$1,975,385	\$1,975,385	-\$250,720	\$1,724,665	\$1,509,882
10	PND XC00	36	Completed	\$5,063,823	\$5,063,823	\$1,440,000	\$6,503,823	\$4,168,537
11	PND YC00	24	Completed	\$6,441,748	\$6,441,748	-\$1,440,000	\$5,001,748	\$4,995,674
12	Т	12	Completed	\$288,198	\$288,198	-\$83,506	\$204,692	\$204,692
13	U	60	Completed	\$915,458	\$915,458	-\$10,000	\$905,458	\$606,087
14	USA <sup>4</sup>	72	Completed	\$374,245	\$374,245	\$10,000	\$384,245	\$388,721
			Total	\$48,627,399	\$48,627,399	\$0	\$48,627,399	\$40,337,116

<sup>1</sup> DOE/BPA reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>3</sup> Column denotes agencies have transferred funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund.

<sup>4</sup> This system consists of radios that will be used across the remaining 13 systems during catastrophic emergency conditions where timely restoration of mission critical telecommunication traffic is of the utmost importance. The estimated relocation timeframe is not expected to affect commercial access to the band, since this system operates in a backup capacity only.

#### Southwestern Power Administration (SWPA)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
1	Southwestern <sup>3</sup>	24	On Time	\$8,091,360	\$42,821,360 <sup>4,5</sup>	\$0	\$42,821,360	\$28,303,381
			Total	\$8,091,360	\$42,821,360 <sup>4,5</sup>	\$0	\$42,821,360	\$28,303,381

<sup>1</sup> DOE/SWPA indicated this system has been relocated from the 1710-1755 MHz band, although funds may continue to be used to implement the transition.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report (OMB) Report to Congress.

<sup>3</sup> The March 2008 First Annual Relocation Report to Congress showed an additional system AD (Corporate Overhead and Reserve). This is now combined with System 1 (Southwestern) and the total amount paid from the Spectrum Relocation Fund (SRF) remains the same.

<sup>4</sup> As indicated in the May 12, 2009 Congressional Notification from OMB, a subsequent transfer of \$17,730,000 from the SRF was made to DOE/SWPA in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>5</sup>As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$17,000,000 from the SRF to DOE/SWPA in accordance with the provisions of the CSEA.

## Department of Energy (DOE)

#### Western Area Power Administration (Western)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
1	Sierra-Nevada Region (SNR)	30	On Time	\$9,846,000	\$9,846,000	\$15,047,932	\$24,893,932	\$22,043,737
2	Rocky Mountain Region (RMR)	28	On Time	\$5,971,200	\$5,971,200	\$1,318,204	\$7,289,404	\$6,566,302
3	Desert Southwest Region (DSW)	30	On Time	\$7,320,000	\$7,320,000	\$4,023,432	\$11,343,432	\$7,944,570
4	Upper Great Plains - Montana (UGP-PT)	36 <sup>4</sup>	On Time	\$22,275,000	\$22,275,000	-\$93,178	\$22,181,822	\$22,075,563
5	Upper Great Plains - North Dakota (UGP-ND)	36 <sup>4</sup>	On Time	\$21,467,000	\$21,467,000	-\$6,985,232	\$14,481,768	\$14,283,608
6	Upper Great Plains - South Dakota (UGP-SD)	36 <sup>4</sup>	On Time	\$26,688,000	\$26,688,000	-\$16,092,749	\$10,595,251	\$10,233,802
$AD^4$	Corporate Overhead and Reserve	N/A	On Time	\$14,635,000	\$14,635,000	\$2,781,591	\$17,416,591	\$0
			Total	\$108,202,200	\$108,202,200	\$0	\$108,202,200	\$83,147,582

<sup>1</sup> DOE/Western indicated these systems have been relocated from the 1710-1755 MHz band, although funds may continue to be used to implement the transition.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>3</sup> Agencies indicate they are transferring funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund.

<sup>4</sup>DOE/Western indicated the System AD is not a radio system but rather an administrative designator to capture the overhead expenditures associated with all systems and funds kept in reserve for inflation, collocation coordination, and planning. Actual costs and associated funding for overhead are distributed out to the system at the end of each fiscal year.

#### DOE Headquarters

System Number	System Name	Estimated Relocation Timeframe (Months)	Status (On Time)	Estimated Relocation Cost <sup>1</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
N/A	DOE Headquarters	72	Completed <sup>2</sup>	\$1,000,000	$$1,650,000^3$	\$0	\$1,650,000	\$1,650,000
			Total	\$1,000,000	\$1,650,000 <sup>2</sup>	\$0	\$1,650,000	\$1,650,000

<sup>1</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report (OMB) Report to Congress.

<sup>2</sup> DOE reported DOE Headquarters has completed the relocation effort and reached comparable capability.

<sup>3</sup> As indicated in the May 12, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$650,000 from the Spectrum Relocation Fund to DOE Headquarters in accordance with the provisions of the Commercial Spectrum Enhancement Act.

### Department of Homeland Security (DHS)

#### Customs and Border Protection (CBP)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>4</sup>	Adjusted Total	Cumulative Outlays
1	El Centro	12	On Time	\$9,913,332	\$11,714,400 <sup>5</sup>	-\$91,754	\$11,622,646	\$ 6,164,625
2	El Paso	12	On Time	\$21,065,830	\$24,893,100 <sup>6</sup>	-\$7,929,930	\$16,963,170	\$ 6,563,655
3	Yuma	12	On Time	\$9,913,332	\$11,714,400 <sup>7</sup>	-\$2,299,119	\$9,415,281	\$ 5,821,887
4	Rio Grande Valley	12	On Time	\$9,913,332	\$11,714,400 <sup>8</sup>	\$1,088,743	\$12,803,143	\$ 3,722,647
5	Laredo	12	On Time	\$9,913,332	\$11,714,400 <sup>9</sup>	\$2,084,743	\$13,799,143	\$ 3,499,035
6	Marfa	12	On Time	\$8,674,166	\$10,250,100 <sup>10</sup>	\$1,502,376	\$11,752,476	\$ 2,522,577
7	Tucson	12	On Time	\$4,956,666	\$5,857,200 <sup>11</sup>	\$5,644,942	\$11,502,142	\$10,206,408
8	Livermore	12	On Time	\$0	\$0	\$0	\$0	\$0
9	San Diego	12	On Time	\$0	\$0	\$0	\$0	\$0
10	Del Rio	12	On Time	\$0	\$0	\$0	\$0	\$0
			Total	\$74,349,990	\$87,858,000	\$0	\$87,858,000	\$38,500,834

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists DHS/CBP as having 60 systems. The correct number should be a total of 10 systems comprised of 60 point-to-point links. Fixed microwave systems are unique to the operational areas defined by the Office of Border Patrol sector areas of responsibility. The number of relocating frequency assignments remains constant. This has no impact on the total resources required to vacate the band.

<sup>2</sup> DHS/CBP indicated these systems have been relocated from the 1710-1755 MHz band by implementing an interim solution; remaining funds will be used to implement a final long-term solution.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>4</sup> Column denotes agencies have transferred funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund (SRF).

<sup>5</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$1,801,068 from the SRF to DHS/CBP in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>6</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$3,827,269 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

<sup>7</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$1,801,068 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

<sup>8</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$1,801,068 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

<sup>9</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$1,801,068 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

<sup>10</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$1,575,934 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

<sup>11</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$900,534 from the SRF to DHS/CBP in accordance with the provisions of the CSEA.

## Department of Homeland Security (DHS)

#### Immigration and Customs Enforcement (ICE)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
1	Components for Portable Systems	12	On Time	\$3,559,281	\$160,116,206 <sup>4,5</sup>	\$0	\$160,116,206	\$131,255,502
			Total	\$3,559,281	\$160,116,206 <sup>4,5</sup>	\$0	\$160,116,206	\$131,255,502

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists ICE as having four systems. The correct number should be one. DHS/ICE did not explain the difference in reporting systems. However, in other cases, agencies attributed the difference to a correction based on their understanding of the definition of a "system."

<sup>2</sup> DHS/ICE indicated this system has been relocated from the 1710-1755 MHz band, although funds may continue to be used to implement a final long-term solution.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>4</sup> As indicated in the November 16, 2007 OMB Congressional Notification, OMB made a subsequent transfer of \$35,570,000 from the Spectrum Relocation Funds (SRF) to DHS/ICE in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>5</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$120,986,925 from the SRF to DHS/ICE in accordance with the provisions of the CSEA.

#### United States Secret Service (USSS)

	System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
	1	Fixed (Transportable)	$12^{3}$	Completed	\$105,800	\$15,179,062 <sup>4</sup>	\$0	\$15,179,062	\$15,179,062
_				Total	\$105,800	\$15,179,062 <sup>4</sup>	\$0	\$15,179,062	\$15,179,062

<sup>1</sup> DHS reported USSS has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress.

<sup>3</sup> DHS/USSS indicated this system has been relocated from the 1710-1755 MHz band by implementing an interim solution; remaining funds will be used to implement a final long-term solution.

<sup>4</sup>As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$15,073,262 from the Spectrum Relocation Fund to DHS/USSS in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

## Department of Homeland Security (DHS)

#### DHS-wide Support (Office of the Chief Information Officer (CIO))

System Number	System Name	Estimated Relocation Timeframe (Months)	Status	Estimated Relocation Cost <sup>1</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
NA	DHS Wide Support	12	On Time	\$11,979,761	\$19,086,572 <sup>2</sup>	\$0	\$19,086,572	\$19,028,715
			Total	\$11,979,761	\$19,086,572 <sup>2</sup>	\$0	\$19,086,572	\$19,028,715

<sup>1</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress. <sup>2</sup> As indicated in the April 2, 2012 OMB Congressional Notification, OMB made a subsequent transfer of \$7,106,811 from the Spectrum Relocation Fund to DHS/CIO in accordance with the provisions of the Commercial Spectrum Enhancement Act.

## Department of Housing and Urban Development (HUD)

#### Inspector General

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
1	GMS Video Transmitter - L Band	24	Completed	\$3,450	\$3,450	\$0	\$3,450	\$3,450
2	GMS Video Receiver - L Band	24	Completed	\$7,315	\$7,315	\$0	\$7,315	\$7,315
3	L-3 Communications Audio/Video Microwave Transmitter	24	Completed	\$3,450	\$3,450	\$0	\$3,450	\$3,450
4	L-3 Communications Audio/Video Microwave Transmitter	24	Completed	\$3,450	\$3,450	\$0	\$3,450	\$3,450
5	L-3 Communications Audio/Video Microwave Transmitter	24	Completed	\$3,450	\$3,450	\$0	\$3,450	\$3,450
			Total	\$21,115	\$21,115	\$0	\$21,115	\$21,115

<sup>1</sup> HUD reported it has completed the relocation effort and reached comparable capability.
 <sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

### Department of the Interior (DOI)

#### Bureau of Reclamation (BOR)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
1	North Platte River Project	24-36	Completed	\$2,805,000	$$5,155,000^3$	\$0	\$5,155,000	\$5,155,000
2	Frying Pan Arkansas	24	Completed	\$1,745,000	$$2,845,000^4$	\$0	\$2,845,000	\$340,192
			Total	\$4,550,000	\$8,000,000	\$0	\$8,000,000	\$5,495,192

<sup>1</sup>DOI/BOR reported it has completed the relocation effort and reached comparable capability, and has returned \$2,504,808 to the SRF.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress.

<sup>3</sup> As indicated in the August 27, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$2,350,000 from the SRF to DOI/BOR in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>4</sup>As indicated in the August 27, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$1,100,000 from the SRF to DOI/BOR in accordance with the provisions of the CSEA.

#### Geological Survey (GS)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
3	Earthquake-Seismic Monitoring	36	Completed	\$6,158,949	\$6,158,949	\$0	\$6,158,949	\$6,158,949
			Total	\$6,158,949	\$6,158,949	\$0	\$6,158,949	\$6,158,949

<sup>1</sup> DOI/GS reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

### Department of the Interior (DOI)

#### National Park Service (NPS)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2,3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
4	Natchez Trace Parkway	36	On Time	\$10,571,000	\$11,755,105 <sup>4</sup>	-\$296,904	\$11,458,201	\$11,428,201
5	Blue Ridge Parkway	36	On Time	\$4,132,000	\$8,527,080 <sup>5</sup>	\$296,904	\$8,823,984	\$7,789,646
				\$14,703,000	\$20,282,185	\$0	\$20,282,185	\$19,217,847

<sup>1</sup> DOI/NPS indicated this system has been relocated from the 1710-1755 MHz band, although funds may continue to be used funds to implement the transition.

<sup>2</sup> The March 2008 First Annual Relocation Report to Congress incorrectly reported the System 4 Estimated Relocation Cost as \$8,349,000 and System 5 Estimated Relocation Cost as \$6,354,000. The total Estimated Relocation Cost of \$14,703,000 agrees with the total contained in the March 2008 First Annual Relocation Report to Congress.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress.

<sup>4</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$1,184,105 from the Spectrum Relocation Fund (SRF) to DOI/NPS in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>3</sup>As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$4,395,080 from the SRF to DOI/NPS in accordance with the provisions of the CSEA.

### Department of Justice (DOJ)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>4</sup>	Adjusted Total	Cumulative Outlays
1	L Band Coded Orthogonal Frequency Division							
	Multiplexing	36	On Time	\$16,777,930	\$27,984,110 <sup>5,6,7</sup>	-\$7,609,038	\$20,375,072	\$20,321,244
2	Long Range Systems	36	On Time	\$10,000,000	\$13,015,868 <sup>8,9,10</sup>	-\$12,385,150	\$630,718	\$630,718
3	Video over IP Systems	36	On Time	\$15,854,320	\$28,952,329 <sup>11,1213</sup>	\$12,211,111	\$41,163,440	\$41,061,606
4	Covert Systems	36	On Time	\$5,006,500	\$9,721,816 <sup>14,15</sup>	\$1,799,840	\$11,521,656	\$11,521,656
5	Misc/Training & Shipping	36	On Time	\$385,250	\$6,045,616 <sup>16,17,18</sup>	-\$3,987,965	\$2,057,651	\$2,057,652
6	Accelerated Withdraw <sup>19</sup>	36	On Time	\$0	\$454,261 <sup>20</sup>	\$9,971,202	\$10,425,463	\$10,425,463
			Total	\$48,024,000	\$86,174,000 <sup>21</sup>	\$0	\$86,174,000	\$86,018,339

#### Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists DOJ/ATF as having 1,641 systems. The correct number should be five. DOJ/ATF system numbers have changed only as a result of reporting modifications associated with implementation management. There is no change to specific equipment counts contained in the systems and related reimbursement costs.

<sup>2</sup> DOJ/ATF indicated the systems have been relocated from the 1710-1755 MHz band by implementing an interim solution; it will use remaining funds to implement a final long-term solution. <sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>4</sup>DOJ/ATF indicates they are transferring funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund (SRF).

<sup>5</sup> As indicated in the July 24, 2008 Congressional Notification from OMB, a subsequent transfer of \$6,230,702 from the SRF was made to DOJ/ATF in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>6</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$4,952,378 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>7</sup>As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$23,100 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>8</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$1,017,000 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>9</sup>As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$1,908,368 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>10</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$90,000 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>11</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$3,707,891 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>12</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$5,081,068 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA. <sup>13</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$4,309,050 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>14</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$2,697,456 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>15</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$2,017,860 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA. <sup>16</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$3,658,450 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>17</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$81,327 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>18</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$1,920,589 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>19</sup> DOJ/ATF indicated System 6 was not identified in the March 2008 First Annual Relocation Report to Congress. DOJ/ATF states this allows the accelerated release of the spectrum earlier then the originally scheduled transition date of March 2010. DOJ/ATF indicates this is required to implement temporary measures to accommodate early release of spectrum and allows ATF to continue operations at a diminished capacity until the relocation is complete, which was completed in April 2010.

<sup>20</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$454,261 from the SRF to DOJ/ATF in accordance with the provisions of the CSEA.

<sup>21</sup> Total additional relocation funds for 2008 are \$17,312,000; 2009 total additional relocation funds are \$14,041,000; 2010 total additional relocation funds are \$6,797,000.

### Department of Justice (DOJ)

#### Federal Bureau of Investigation (FBI)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>4</sup>	Adjusted Total	Cumulative Outlays
1	Airborne Systems	36	On Time	\$2,000,000	\$30,491,000 <sup>5,6</sup>	-\$13,606,779	\$16,884,221	\$16,884,221
2	L/S Band (RF Systems)	36	On Time	\$77,000,000	\$99,689,562 <sup>7,8</sup>	\$917,748	\$100,607,310	\$100,523,369
3	Central Receive Systems <sup>9</sup>	36	On Time	\$30,000,000	\$49,043,877 <sup>10</sup>	-\$40,386,716	\$8,657,161	\$8,657,161
4	Point to Point (VOIP Systems)	36	On Time	\$27,000,000	\$48,142,732 <sup>11,12</sup>	\$10,053,977	\$58,196,709	\$58,196,709
5	Misc/ Administrative	36	On Time	\$3,225,000	\$24,888,378 <sup>13,14</sup>	\$25,062,057	\$49,951,336	\$47,955,317
6	Sensitive Mission System <sup>15</sup>	36	On Time	\$0	\$30,684,450 <sup>16,17</sup>	\$591,525	\$31,275,975	\$31,004,755
7	Video Storage and Distribution <sup>15</sup>	36	On Time	\$0	$$1,000,000^{18}$	\$5,395,000	\$6,395,761	\$6,395,761
8	Accelerated Plan <sup>15,19</sup>	36	On Time	\$0	\$0	\$11,971,527	\$11,971,527	\$11,971,527
			Total	\$139,225,000	\$283,940,000 <sup>20</sup>	\$0	\$283,940,000	\$281,588,820

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists DOJ/FBI as having 119 systems plus one video surveillance system. The correct number should be five. DOJ/FBI system numbers have changed only as a result of reporting modifications associated with implementation management. There is no change to specific equipment counts contained in the systems and related reimbursement costs.

<sup>2</sup>DOJ/FBI indicated the systems have been relocated from the 1710-1755 MHz band by implementing an interim solution; it will use the remaining funds to implement a final long-term solution.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>4</sup> DOJ/FBI states they are transferring funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund (SRF).

<sup>5</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$1,000,000 from the SRF to DOJ/FBI in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>6</sup>As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$27,491,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>7</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$1,000,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>8</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$21,689,562 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>9</sup> DOJ/FBI states System 3 (Central Receive) is dependent on System 2 (L/S Band (RF Systems)) and funding and plan for System 3 has been consolidated into System 2.

<sup>10</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$19,043,877 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>11</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$1,000,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>12</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$20,142,732 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>13</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$730,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>14</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$20,933,378 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>15</sup> DOJ/FBI states it added Systems 6, 7 and 8, which did not appear in the March 2008 First Annual Relocation Report to Congress. The February 2007 OMB Report to Congress identified these systems as critical future needs. DOJ/FBI indicated that funding for these systems was provided from System 2 (L/S Band (RF Systems)).

<sup>16</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$19,000,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>17</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$11,684,450 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.

<sup>18</sup> As indicated in the January 14, 2009 OMB Congressional Notification from OMB, OMB made a subsequent transfer of \$1,000,000 from the SRF to DOJ/FBI in accordance with the provisions of the CSEA.
<sup>19</sup> DOJ/FBI states System 8 was added and did not appear in the March 2008 First Annual Relocation Report to Congress. DOJ/FBI indicates this plan permits the accelerated release of the spectrum earlier than the originally scheduled transition date of March 2010 and was required to implement temporary measures to accommodate early release of spectrum. DOJ/FBI noted that this plan allows continued operations at a diminished capacity until the relocation is complete, which was completed in April 2009.

<sup>20</sup> Total additional relocation funds for 2009 are \$23,730,000 and for 2010 the total additional relocation funds are \$120,985,000.

## Department of Justice (DOJ)

#### Drug Enforcement Administration (DEA)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
1	Video Surveillance	36	On Time	\$74,772,000	\$185,510,000 <sup>3,4,5</sup>	\$0	\$185,510,000	\$184,649,217
			Total	\$74,772,000	\$185,510,000	\$0	\$185,510,000	\$184,649,217

<sup>1</sup> DOJ/DEA indicated this system has been relocated from the 1710-1755 MHz band by implementing an interim solution; it will use remaining funds to implement a final long-term solution.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress.

<sup>3</sup> As indicated in the July 24, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$14,075,000 from the Spectrum Relocation Fund (SRF) to DOJ/DEA in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>4</sup> As indicated in the January 14, 2009 OMB Congressional Notification, OMB made a subsequent transfer of \$55,687,000 from the SRF to DOJ/DEA in accordance with the provisions of the CSEA.

<sup>5</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$40,976,000 from the SRF to DOJ/DEA in accordance with the provisions of the CSEA.

#### DOJ-wide Support (Office of the Chief Information Officer)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status	Estimated Relocation Cost <sup>1</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
DOJ	DOJ WIDE SUPPORT	36	Completed <sup>2</sup>	\$800,000	\$800,000	\$0	\$800,000	\$800,000
			Total	\$800,000	\$800,000	\$0	\$800,000	\$800,000

<sup>1</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>2</sup> DOJ reported DOJ-wide Support has completed the relocation effort and reached comparable capability.

## Department of Transportation (DOT)

Federal Aviation Administration (FAA)

System Number	System Name	Estimated Relocation Timeframe (Months) <sup>1</sup>	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>4</sup>	Adjusted Total	Cumulative Outlays
1	Anchorage	43	Completed	\$6,356,917	\$6,356,917	\$467,659	\$6,824,576	\$6,819,850
2	Fairbanks	46	Completed	\$941,755	\$941,755	-\$336544	\$605,211	\$597,744
3	Kenai	21	Completed	\$1,820,471	\$1,820,471	\$29,671	\$1,850,142	\$1,843,673
4	Norfolk	42	Completed	\$2,891,072	\$2,891,072	-\$1,391,628	\$1,499,426	\$1,498,702
5	Wilkes-Barre	33	Completed	\$932,226	\$932,226	-\$113,185	\$819,041	\$818,075
6	Minneapolis	31	Completed	\$922,954	\$922,954	\$82,128	\$1,005,082	\$1,003,768
7	Denver-Greeley	32	Completed	\$948,603	\$948,603	-\$98,633	\$849,970	\$849,604
8	Grand Junction including ZDV-ZLC extended system <sup>5</sup>	26	Completed	\$2,770,354	\$2,770,354	\$317,123	\$2,453,231	\$2,452,164
9	Parshall-Red Table	43	Completed	\$2,007,177	\$2,007,177	\$38,301	\$2,045,478	\$2,043,312
10	Miller Peak-Missoula incl. ZSE-BZN & ZLC-BXN extended system <sup>5</sup>	45	Completed	\$1,858,494	\$1,858,494	\$1,253,581	\$3,112,075	\$3,106,392
11	Medford including ZOA-ZSE extended system <sup>5</sup>	20	Completed	\$1,803,988	\$1,803,988	\$1,508,123	\$3,312,111	\$3,311,147
12	Pasco-Wallula	28	Completed	\$949,670	\$949,670	-\$68,161	\$881,509	\$875,363
13	Atlanta	30	Completed	\$941,691	\$941,691	\$390,723	\$1,332,414	\$1,324,074
14	Puerto Rico-Virgin Islands	37	Completed	\$10,661,432	\$10,661,432	-\$439,132	\$10,222,300	\$10,202,660
15	Albuquerque Airport	30	Completed	\$1,842,874	\$1,842,874	\$1,565,501	\$3,408,375	\$3,407,730
16	Albuquerque-Gallup including ZAB-ZDV extended system <sup>5</sup>	40	Completed	\$2,737,380	\$2,737,380	\$79,721	\$2,817,101	\$2,816,534
17	Boron-Rand	44	Completed	\$884,982	\$884,982	-\$884,982	\$0.00	\$0.00
18	Guam	28	Completed	\$2,898,490	\$2,898,490	\$91,393	\$2,989,883	\$2,989,883
19	Hawaiian Islands	22	Completed	\$11,023,227	\$11,023,227	-\$2,710,314	\$8,312,913	\$8,310,964
20	Hilo	42	Completed	\$1,898,923	\$1,898,923	\$552,198	\$2,451,121	\$2,447,054
21	American Samoa	37	Completed	\$969,346	\$969,346	\$183,985	\$1,153,331	\$1,153,331
			Total	\$58,062,020 <sup>6</sup>	\$58,062,020 <sup>6</sup>	-\$116,736	\$57,945,290 <sup>6</sup>	\$57,872,024

<sup>1</sup> The estimated relocation timeframe listed in the February 2007 Office of Management and Budget (OMB) Report to Congress was 48 months.

<sup>2</sup> DOT/FAA reported it has completed the relocation effort and reached comparable capability.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

<sup>4</sup> Agencies indicate they are transferring funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund.

<sup>5</sup> In June 2008, DOT/FAA stated in the National Telecommunications and Information Administration (NTIA) and OMB approved DOT/FAA's solution including five extended 7125-8500 MHz RCL systems that were not part of the original 1710-1755 MHz relocation submission. Consistent with this, the DOT/FAA is transferring funds from some of the 1710-1755 MHz systems to the five systems that include these 7125-8500 MHz systems. These five systems include Grand Junction (one extended 7125-8500 MHz system ZDV-ZLC), Miller Peak-Missoula (two extended 7125-8500 MHz systems: (ZSE-BZN & ZLC-BZN), Medford (ZOA-ZSE) and Albuquerque-Gallup (ZAB-ZDV).

<sup>6</sup> A value of \$58,062,020 was contained in NTIA report to the Federal Communications Commission and Congress, dated December 2005, and the Congressional Notification from OMB, dated February 16, 2007. This is the amount that was actually transferred to DOT/FAA. In response to a request for data for this report, DOT/FAA reported a value of \$58,062,027 for its total estimated relocation costs based on the summation of individual systems. The difference appears to be due to rounding.

## Department of Treasury

#### Internal Revenue Service (IRS)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
1	Covert Video Surveillance	28	On Time	\$4,409,000	\$4,409,000	\$0	\$4,409,000	\$4,155,645
			Total	\$4,409,000	\$4,409,000	\$0	\$4,409,000	\$4,155,645

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists Treasury/IRS as having 100 systems, but that number represented the total number of devices affected by this relocation rather than the total number of systems. The aggregate number of devices should be considered part of one system for tracking purposes.

<sup>2</sup> Treasury/IRS indicated this system has been relocated from the 1710-1755 MHz band, although funds may continue to be used to implement the transition.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

#### Treasury Inspector General for Tax Administration (TIGTA)

	System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
ſ	1	Covert Video Surveillance	28	On Time	\$892,000	\$892,000	\$0	\$892,000	\$831,935
_				Total	\$892,000	\$892,000	\$0	\$892,000	\$831,935

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists Treasury/TIGTA as having ten systems. The correct number should be one since the number reported in February 2007 represented the total number of devices affected by this relocation rather than the total number of systems. The aggregate number of devices should be considered part of one system for tracking purposes. <sup>2</sup> Treasury/TIGTA indicated this system has been relocated from the 1710-1755 MHz band, although funds may continue to be used to implement the transition.

<sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.

## National Aeronautics and Space Administration

#### National Aeronautics and Space Administration (NASA)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
1	Air-to-Ground Video Telemetry System	24	Completed	\$720,000	\$720,000	\$401	\$720,401	\$720,401
2	Video Surveillance System	12	Completed	\$20,000	\$20,000	-\$401	\$19,599	\$ 19,599
			Total	\$740,000	\$740,000	\$0	\$740,000	\$740,000

<sup>1</sup> NASA reported it has completed the relocation effort and reached comparable capability.
 <sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget Report to Congress.

<sup>3</sup> The reported cost to replace and relocate System 2 Video Surveillance System was \$20,000. This was reported as a cumulative outlay in 2008 as \$20,000; however, it was reported in error and should have been \$19,599. The \$401 was transferred to System 1.

### Tennessee Valley Authority

#### Tennessee Valley Authority (TVA)

System Number	System Name	Estimated Relocation Timeframe (Months)	Status <sup>1</sup>	Estimated Relocation Cost <sup>2</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments <sup>3</sup>	Adjusted Total	Cumulative Outlays
1	Nashville – Paradise Fossil Plant	48	Completed	\$4,396,600	\$8,714,800 <sup>4,5</sup>	-\$29,232	\$8,685,568	\$8,685,568
2	Shawnee Fossil Plant – Department of Energy United States Enrichment Corporation	36	Completed	\$1,993,900	\$2,288,900 <sup>6</sup>	\$45,626	\$2,334,526	\$2,334,526
3	Weakley – Hickman	48	Completed	\$1,109,300	\$1,224,300 <sup>7</sup>	\$0	\$1,224,300	\$1,224,300
4	Power System Control Center - Bellefonte Nuclear Plant	48	Completed	\$1,875,400	\$2,030,400 <sup>8</sup>	\$0	\$2,030,400	\$2,030,400
5	Oak Ridge - Bull Run Fossil Plant	36	Completed	\$656,330	\$656,330	-\$50,715	\$605,615	\$605,615
6	Franklin – Sewanee	36	Completed	\$656,327	\$836,327 <sup>9</sup>	\$34,321	\$870,648	\$870,648
			Total	\$10,687,857	\$15,751,057	\$0	\$15,751,057	\$15,751,057

<sup>1</sup>TVA reported it has completed the relocation effort and reached comparable capability.

<sup>2</sup> Pre-relocation estimates as indicated in the February 2007 Office of Management and Budget (OMB) Report to Congress.

<sup>3</sup> Agencies indicate they are transferring funds between systems due to either higher or lower than estimated costs to relocate and this action does not affect the total amount received from the Spectrum Relocation Fund (SRF).

<sup>4</sup> As indicated in the August 27, 2008 OMB Congressional Notification, OMB made a subsequent transfer of \$3,333,200 from the SRF to TVA in accordance with the provisions of the Commercial Spectrum Enhancement Act (CSEA).

<sup>5</sup> As indicated in the December 15, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$985,000 from the SRF to TVA in accordance with the provisions of the CSEA.

<sup>6</sup>As indicated in the December 15, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$295,000 from the SRF to TVA in accordance with the provisions of the CSEA.

<sup>7</sup> As indicated in the December 15, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$115,000 from the SRF to TVA in accordance with the provisions of the CSEA.

<sup>8</sup> As indicated in the December 15, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$155,000 from the SRF to TVA in accordance with the provisions of the CSEA.

<sup>9</sup> As indicated in the December 15, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$180,000 from the SRF to TVA in accordance with the provisions of the CSEA.

## United States Postal Service (USPS)

#### Inspection Service (IS)

System Number	System Name <sup>1</sup>	Estimated Relocation Timeframe (Months)	Status <sup>2</sup>	Estimated Relocation Cost <sup>3</sup>	Total Transferred From Spectrum Relocation Fund (SRF)	Intra-Agency Adjustments	Adjusted Total	Cumulative Outlays
USPS001	Video Surveillance	12	Completed	\$1,761,760	\$8,333,760 <sup>4</sup>	\$0	\$8,333,760	\$8,333,760
			Total	\$1,761,760	\$8,333,760	\$0	\$8,333,760	\$8,333,760

<sup>1</sup> The February 2007 Office of Management and Budget (OMB) Report to Congress lists USPS/IS as having 508 systems. USPS/IS reports it is in fact one system utilizing 508 devices.

 <sup>2</sup> The USPS reported it has completed the relocation effort and reached comparable capability.
 <sup>3</sup> Pre-relocation estimates as indicated in the February 2007 OMB Report to Congress.
 <sup>4</sup> As indicated in the February 16, 2010 OMB Congressional Notification, OMB made a subsequent transfer of \$6,572,000 from the Spectrum Relocation Fund to USPS/IS in accordance with the provisions of the Commercial Spectrum Enhancement Act.

#### PART II

#### TRANSITION OF FEDERAL SPECTRUM IN THE 1695-1710 MHz AND 1755-1780 MHz BANDS: FIRST ANNUAL PROGRESS REPORT

On March 20, 2013, the FCC announced its plan to commence an auction as early as September 2014 of the 1695-1710 MHz and 1755-1780 MHz frequency bands, which were allocated for federal use, and the 2155-2180 MHz band, which was allocated for non-federal use. On May 13, 2014, NTIA sent a letter to the FCC, on behalf of eligible federal agencies, providing notification of the initial estimated relocation and sharing costs and the estimated transition timelines for the 1695-1710 MHz and the 1755-1780 MHz bands. The total estimated relocation and sharing costs for the 1695-1710 MHz band are \$527.1 million. The total estimated relocation and sharing costs for the 1755-1780 MHz band are \$4.576 billion.

On September 8, 2014, OMB, in consultation with NTIA, submitted a report to Congress detailing its intent to transfer pre-auction planning funds in the amount of \$479,000 to two federal agencies for the 1695-1710 MHz band and \$69.386 million to four federal agencies for the 1755-1780 MHz band for planning for the auction. The auction commenced on November 13, 2014 and concluded on January 30, 2015, with \$41.3 billion in net winning bids and a total of 31 bidders winning 1,611 licensees. On June 23, 2015, OMB submitted a second report to Congress detailing its intent to transfer \$526.56 million to the three federal agencies for the 1695-1710 MHz band and \$4.503 billion to 12 federal agencies for the 1755-1780 MHz band.

While it is early in the transition period, affected federal agencies report that they are adhering to the original approved transition timelines and cost estimates for the 1695-1710 MHz and 1755-1780 MHz bands. For the period ending December 2015, the eligible federal agencies spent \$5.534 million on the 1695-1710 MHz band and \$25.238 million on the 1755-1780 MHz band for transition activities. For the 1755-1780 MHz band, the Department of Housing and Urban Development, the Department of the Treasury, the United States Agency for International Development, and the United States Capitol Police reported that they have transitioned from using the spectrum. Full transition from the spectrum for the remaining agencies is projected for 2025.

The attachments to Part II provide an overall summary for the first year of transition activities for the 1695-1710 MHz and 1755-1780 MHz bands. Specifically, Attachment C provides — by department, agency, or bureau — an overall summary of relocation or sharing activities from January 2015 through December 2015 for the 1695-1710 MHz band. The table provides estimated transition timelines, status of the progress made in adhering to those timelines, estimated relocation or sharing costs on a fiscal year basis, cumulative outlays, and amounts transferred from the SRF starting in November 2014. Attachment D provides additional detail for each department, agency, or bureau for the 1695-1710 MHz band, including costs and expenditures on a system-by-system basis (Status of Spectrum Relocation Funds) and the status of transition out or sharing of the spectrum by the type of system use (Status of Spectrum Transition). System use represents a categorization of frequency assignments, by type of system

or operational use, and the status column provides the status of each type of operation in the band. Attachments E and F provide this same information for the 1755-1780 MHz band.

Below summarizes the differences in the Part II tables (Attachments C-F) from those in Part I (Attachments A-B) due to changes implemented as a result of the Tax Relief Act:<sup>5</sup>

"Summary" Table (Attachments C and E):

- <u>Estimated Completion of Transition:</u> Estimated month/year when a federal entity estimates it will have completed <u>the transition of all of its spectrum use in the</u> <u>band</u> as documented by the "transition timeline" in its transition plan approved by the Technical Panel. This could be achieved by either vacating the auctioned spectrum or implementing an indefinite sharing arrangement enabling non-federal use of the spectrum.
- <u>Transition Status</u>: This represents the status of the transition out of the spectrum <u>for an agency</u> for all of its operations (system use). Status is ongoing unless the federal entity has reported completion of the transition of all of its spectrum use. (Transition status is N/A for the Defense Spectrum Organization, which does not have assignments in the band.)
- <u>Spending Status</u>: This represents the status of expending SRF funds for an agency based on *spending on all of its systems or programs*. Status is ongoing unless the agency has reported completion of spending SRF funds for the band. It is N/A for an agency or system that transitions at zero cost (e.g., compressing operations).

"Status of Spectrum Relocation Funds" Table (Attachments D and F):

- <u>Estimated End Timeline for Spending Funds</u>: Month/year when a federal entity estimates it will have completed its expenditure of SRF funds on a specific system or program as documented in its transition plan approved by the Technical Panel.
- <u>Spending Status</u>: Identifies the status of SRF spending <u>by system or program</u> as either ongoing, completed, or N/A for a system or program that transitions at zero cost.

"Status of Spectrum Transition" Table (Tabs D and F):

• <u>Estimated Completion of Transition</u>: Month/year when a federal entity estimates it will have completed <u>the transition of its frequency assignments in the band for</u> <u>similar types of systems, represented as the maximum transition timeline for that</u> <u>operation</u> based on the estimates by "system use" as documented in its transition plan approved by the Technical Panel. This could be achieved by either vacating

<sup>&</sup>lt;sup>5</sup> Additional differences may also be due to the implementation of an automated information system, the Spectrum Transition Tool (ST2), for tracking the transition and cost data presented in the Part II tables. The data reported reflects inputs verified as accurate and submitted by agencies into ST2.

the auctioned spectrum or implementing an indefinite sharing arrangement enabling non-federal use of the spectrum.

• <u>Status</u>: Identifies the combined status of the transition of the federal entity's frequency assignments for the indicated system use or operation. Status may be ongoing, completed, delayed, or N/A for an agency that does not have assignments in the band. A delay in the transition of any assignment will reflect a delayed status for that type of system use or operation.

## Attachment C

## 1695 – 1710 MHz Band

## Summary of Sharing and Relocation Activities

## By Department, Agency, and/or Bureau

## Summary of Sharing and Relocation Activities

Department/Agency	Bureau	Estimated Completion of Transition Timeline (Month/Year)	Transition Status	Total Estimated Transition Cost	Total Transferred from SRF	Cumulative Outlays	Spending Status
Department of Commerce (DOC)	National Oceanic and Atmospheric Administration (NOAA)	4/2018	Ongoing	\$263,303,000	\$263,303,000	\$5,126,000	Ongoing
Department of Defense (DOD)	Air Force (AF)	4/2018	Ongoing	\$88,976,400	\$621,000	\$0	Ongoing
DOD	Army (AR)	4/2018	Ongoing	\$64,121,000	\$600,000	\$0	Ongoing
DOD	Navy (N)	4/2018	Ongoing	\$76,344,500	\$820,000	\$270,000	Ongoing
DOD	Subtotal			\$229,441,900	\$2,041,000	\$270,000	
Department of Interior (DOI)	DOI Headquarters	4/2018	Ongoing	\$34,325,000	\$34,325,000	\$137,500	Ongoing
Total				\$527,069,900	\$299,669,000	\$5,533,500	

# Attachment D

# 1695 - 1710 MHz Band

# Summary of Sharing and Relocation Activities

By System

# Department of Commerce

## National Oceanic and Atmospheric Administration (NOAA)

### STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Barrigada GU RCVR Site	\$15,047,000	\$15,047,000	\$15,047,000	\$15,047,000	\$15,047,000	\$0	\$0	\$15,047,000	10/2018	On Time
BARROW POES RCVR	\$7,194,000	\$7,194,000	\$7,194,000	\$7,194,000	\$7,194,000	\$0	\$0	\$7,194,000	10/2018	On Time
Boulder CO RCVR Site	\$6,566,000	\$6,566,000	\$6,566,000	\$6,566,000	\$6,566,000	\$0	\$0	\$6,566,000	10/2018	On Time
Coordination Portal	\$6,600,000	\$6,600,000	\$6,600,000	\$6,600,000	\$6,600,000	\$319,000	\$319,000	\$6,281,000	7/2018	On Time
Elmendorf AFB-Anchorage POES RCVRS	\$11,464,000	\$11,464,000	\$11,464,000	\$11,464,000	\$11,464,000	\$0	\$0	\$11,464,000	10/2018	On Time
FAIRBANKS POES RCVR	\$12,918,000	\$12,918,000	\$12,918,000	\$12,918,000	\$12,918,000	\$0	\$0	\$12,918,000	10/2018	On Time
Fairmont WV RCVR Site	\$6,296,000	\$6,296,000	\$6,296,000	\$6,296,000	\$6,296,000	\$0	\$0	\$6,296,000	10/2018	On Time
FORD ISLAND POES RCVR	\$7,683,000	\$7,683,000	\$7,683,000	\$7,683,000	\$7,683,000	\$0	\$0	\$7,683,000	10/2018	On Time
GOES-R Redesign	\$3,690,000	\$3,690,000	\$3,690,000	\$3,690,000	\$3,690,000	\$3,690,000	\$3,690,000	\$0	7/2015	Complete
GREENBELT GOES RCVRS	\$3,423,000	\$3,423,000	\$3,423,000	\$3,423,000	\$3,423,000	\$0	\$0	\$3,423,000	10/2018	On Time
Guaynabo PR RCVR Site	\$5,202,000	\$5,202,000	\$5,202,000	\$5,202,000	\$5,202,000	\$0	\$0	\$5,202,000	10/2018	On Time
Hub (NSOF)	\$34,128,000	\$34,128,000	\$34,128,000	\$34,128,000	\$34,128,000	\$0	\$0	\$34,128,000	10/2018	On Time
KANSAS CITY POES RCVR	\$3,501,000	\$3,501,000	\$3,501,000	\$3,501,000	\$3,501,000	\$0	\$0	\$3,501,000	10/2018	On Time
MIAMI AOML POES RCVR	\$3,253,000	\$3,253,000	\$3,253,000	\$3,253,000	\$3,253,000	\$0	\$0	\$3,253,000	10/2018	On Time
MIAMI NHC POES RCVR	\$3,386,000	\$3,386,000	\$3,386,000	\$3,386,000	\$3,386,000	\$0	\$0	\$3,386,000	10/2018	On Time
MONTEREY POES RCVR	\$3,520,000	\$3,520,000	\$3,520,000	\$3,520,000	\$3,520,000	\$0	\$0	\$3,520,000	10/2018	On Time
Norman OK RCVR Site	\$3,482,000	\$3,482,000	\$3,482,000	\$3,482,000	\$3,482,000	\$0	\$0	\$3,482,000	10/2018	On Time
Pre-Acquisition/GCs & Fees	\$5,537,000	\$5,537,000	\$5,537,000	\$5,537,000	\$5,537,000	\$76,000	\$76,000	\$5,461,000	10/2018	On Time
Radiosonde Relocation	\$80,139,000	\$80,139,000	\$80,139,000	\$80,139,000	\$80,139,000	\$1,041,000	\$1,041,000	\$79,098,000	7/2021	On Time
STENNIS SPACE CENTER POES RCVR	\$4,867,000	\$4,867,000	\$4,867,000	\$4,867,000	\$4,867,000	\$0	\$0	\$4,867,000	10/2018	On Time
SUITLAND POES RCVRS	\$15,056,000	\$15,056,000	\$15,056,000	\$15,056,000	\$15,056,000	\$0	\$0	\$15,056,000	10/2018	On Time
WALLOPS ISLAND RCVRS (POES/GOES)	\$20,351,000	\$20,351,000	\$20,351,000	\$20,351,000	\$20,351,000	\$0	\$0	\$20,351,000	10/2018	On Time
Total	\$263,303,000	\$263,303,000	\$263,303,000	\$263,303,000	\$263,303,000	\$5,126,000	\$5,126,000	\$258,177,000		

## Department of Commerce

National Oceanic and Atmospheric Administration (NOAA) continued.

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Meteorological Satellite			
Operations	4/2018	On Time	

## United States Air Force (USAF)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
1695-1710 MHz Portal (ITS)	\$2,220,000	\$2,220,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
AF Implementation and Oversight	\$1,500,000	\$1,500,000	\$0	\$0	\$71,000	\$0	\$0	\$71,000	8/2025	On Time
AF METSAT 1	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
AF METSAT 2	\$13,691,400	\$13,691,400	\$137,500	\$137,500	\$137,500	\$0	\$0	\$137,500	8/2025	On Time
AF METSAT 3	\$18,423,000	\$18,423,000	\$137,500	\$137,500	\$137,500	\$0	\$0	\$137,500	8/2025	On Time
AF METSAT 4	\$27,900,700	\$27,900,700	\$137,500	\$137,500	\$137,500	\$0	\$0	\$137,500	8/2025	On Time
AF METSAT Pre-Auction	\$100,000	\$100,000	\$71,000	\$71,000	\$0	\$0	\$0	\$0	9/2015	On Time
Monitoring Hub	\$19,707,300	\$19,707,300	\$137,500	\$137,500	\$137,500	\$0	\$0	\$137,500	8/2025	On Time
Total	\$88,976,400	\$88,976,400	\$621,000	\$621,000	\$621,000	\$0	\$0	\$621,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Meteorological Satellite			
Operations	4/2018	On Time	

## Department of the Army (Army)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
1695-1710 MHz Army										
deployment related costs	\$8,560,000	\$8,560,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
1695-1710 MHz Portal (ITS)	\$2,220,000	\$2,220,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Cincinnati, OH - GOES RCVR	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Columbus Lake, MS - GOES RCVR	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Management, Oversite, Engineering Support (Army Spectrum Mgt Office)	\$250,000	\$250,000	\$600,000	\$600,000	\$600,000	\$0	\$0	\$600,000	8/2025	On Time
Monitoring System - Hub	\$13,138,200	\$13,138,200	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Omaha, NE - GOES RCVR	\$5,360,400	\$5,360,400	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Rock Island, IL - GOES RCVR	\$7,201,400	\$7,201,400	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Sacramento, CA - GOES RCVR	\$5,655,000	\$5,655,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
St Louis, MO - GOES RCVR	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Vicksburg, MS - GOES RCVR	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Total	\$64,121,000	\$64,121,000	\$600,000	\$600,000	\$600,000	\$0	\$0	\$600,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Meteorological Satellite Operations	4/2018	On Time	

## Department of the Navy (DON)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
1695-1710 MHz Portal (ITS)	\$2,220,000	\$2,220,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
1695-1710 MHz Portal (Navy)	\$3,167,000	\$3,167,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
DoN HQ Transition Process Management	\$3,136,000	\$3,136,000	\$820,000	\$820,000	\$820,000	\$270,000	\$270,000	\$550,000	8/2025	On Time
Monitoring - Hub	\$19,707,300	\$19,707,300	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Monterey MetSat RCVR (Navy METOC-3)	\$9,269,900	\$9,269,900	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Pearl Harbor MetSat RCVR (Navy METOC-1)	\$18,706,400	\$18,706,400	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Stennis Space Center MetSat RCVR (Navy METOC-2)	\$9,269,900	\$9,269,900	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Twenty-Nine Palms MetSat RCVR (USMC METOC-2)	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Yuma MetSat RCVR (USMC METOC-1)	\$5,434,000	\$5,434,000	\$0	\$0	\$0	\$0	\$0	\$0	8/2025	On Time
Total	\$76,344,500	\$76,344,500	\$820,000	\$820,000	\$820,000	\$270,000	\$270,000	\$550,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Meteorological Satellite Operations	4/2018	On Time	
Equipment Calibration	1/2016	On Time	

# Department of the Interior (DOI)

## Department of the Interior

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Boise, ID - GOES (RRC	¢5 280 000	¢5 280 000	¢5 290 000	¢5 280 000	¢5 280 000	¢27.500	¢27.500	¢5 252 500	12/2021	On Time
BORPNRHA)	\$5,380,000	\$5,380,000	\$5,380,000	\$5,380,000	\$5,380,000	\$27,500	\$27,500	\$5,352,500	12/2021	On Time
Boise, ID - GOES (RRC NFIC)	\$5,380,000	\$5,380,000	\$5,380,000	\$5,380,000	\$5,380,000	\$27,500	\$27,500	\$5,352,500	12/2021	On Time
Guaynabo, PR - GOES (RRC CWSC)	\$8,189,000	\$8,189,000	\$8,189,000	\$8,189,000	\$8,189,000	\$27,500	\$27,500	\$8,161,500	12/2021	Complete
Knoxville, TN - GOES (RRC TVARFC)	\$5,332,000	\$5,332,000	\$5,332,000	\$5,332,000	\$5,332,000	\$27,500	\$27,500	\$5,304,500	12/2021	On Time
Sioux Falls, SD - POES (RRC EROSLRPS)	\$10,044,000	\$10,044,000	\$10,044,000	\$10,044,000	\$10,044,000	\$27,500	\$27,500	\$10,016,500	12/2021	On Time
Total	\$34,325,000	\$34,325,000	\$34,325,000	\$34,325,000	\$34,325,000	\$137,500	\$137,500	\$34,187,500		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Meteorological Satellite			
Operations	4/2018	On Time	

# Attachment E

# 1755 – 1780 MHz Band

# Summary of Sharing and Relocation Activities

# By Department, Agency, and/or Bureau

# Summary of Sharing and Relocation Activities

Department/Agency	Bureau	Estimated Completion of Transition Timeline (Month/Year)	Transition Status	Total Estimated Transition Cost	Total Transferred from SRF	Cumulative Outlays	Spending Status
Department of Commerce (DOC))	National Oceanic and Atmospheric Administration (NOAA)	11/2016	Ongoing	\$350,000	\$350,000	\$0	Ongoing
Department of Defense (DOD)	Air Force (AF)	1/2025	Ongoing	\$565,776,400	\$8,247,100	\$760,000	Ongoing
DOD	Army (AR)	4/2020	Ongoing	\$709,821,000	\$841,000	\$814,800	Ongoing
DOD	Navy(N)	10/2023	Ongoing	\$1,396,960,800	\$7,674,000	\$53,900	Ongoing
DOD DOD	Defense Spectrum Organization (DSO) Subtotal	N/A	N/A	\$247,000,000 \$2,919,558,200	\$21,312,000 \$38,074,100	\$21,069,600 \$22,698,300	Ongoing
Department of Energy (DOE)	Bonneville Power Administration (BPA)	7/2017	Ongoing	\$6,800,000	\$6,800,000	\$104,000	Ongoing
Department of Homeland Security (DHS)		7/2018	Ongoing	\$490,145,000	\$489,287,000	\$203,200	Ongoing
Department of Justice (DOJ)		7/2018	Ongoing	\$1,104,330,000	\$1,104,330,000	\$1,917,100	Ongoing
Department of Treasury (TREAS)		1/2016	Completed	\$7,802,000	\$7,801,000	\$0	Ongoing
Department of Veterans Affairs (VA)		4/2016	Ongoing	\$275,000	\$275,000	\$0	Ongoing
Department of Transportation (DOT)	Federal Aviation Administration (FAA)	1/2016	Ongoing	\$433,000	\$433,000	\$315,000	Ongoing
Housing and Urban Development (HUD)	Inspector General (IG)	2/2015	Completed	\$24,000	\$24,000	\$0	Ongoing
National Aeronautics and Space Administration (NASA)		10/2016	Ongoing	\$1,537,000	\$1,537,000	\$0	Ongoing
Department of the Interior (DOI)	National Park Service (NPS)	1/2017	Ongoing	\$8,946,000	\$8,946,000	\$0	Ongoing
DOI	US Geological Survey (USGS)	1/2018	Ongoing	\$35,680,000	\$35,680,000	\$0	Ongoing
DOI	Subtotal			\$44,626,000	\$44,626,000	\$0	

# Summary of Sharing and Relocation Activities

Department/Agency	Bureau	Estimated Completion of Transition Timeline (Month/Year)	Transition Status	Total Estimated Transition Cost	Total Transferred from SRF	Cumulative Outlays	Spending Status
United States Capitol Police (USCP)		1/2016	Completed	\$0	\$0	\$0	N/A
US Agency for International Development t (USAID)		1/2015	Completed	\$150,000	\$150,000	\$0	Ongoing
Total				\$4,576,030,200	\$1,693,687,100	\$25,237,600	

# Attachment F

# 1755 - 1780 MHz Band

# Summary of Sharing and Relocation Activities

By System

## Department of Commerce

National Oceanic and Atmospheric Administration (NOAA)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
NEXRAD_MLOS LA	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$0	\$0	\$175,000	07/2020	On Time
NEXRAD_MLOS MISSOULA	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$0	\$0	\$175,000	07/2020	On Time
Total	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$0	\$0	\$350,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Unmanned Aerial Systems Operations	10/2015	Delayed	Frequency assignment will expire 06/2016
Microwave Operations	11/2016	Complete	

## United States Air Force (USAF)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
AF ACTS	\$68,153,300	\$68,153,300	\$344,100	\$344,100	\$100	\$0	\$0	\$100	11/2020	On Time
AF AMT 1	\$236,276,000	\$236,276,000	\$200,000	\$200,000	\$706,000	\$5,000	\$5,000	\$701,000	11/2025	On Time
AF AMT 2	\$56,983,000	\$56,983,000	\$1,167,200	\$1,167,200	\$1,534,200	\$84,000	\$84,000	\$1,450,200	11/2025	On Time
AF AMT 3	\$56,983,000	\$56,983,000	\$1,167,200	\$1,167,200	\$1,534,200	\$84,000	\$84,000	\$1,450,200	11/2025	On Time
AF Classified System	\$20,000,000	\$20,000,000	\$400,000	\$400,000	\$400,000	\$0	\$0	\$400,000	08/2025	On Time
AF Cost and Accounting (AFCAA)	\$424,000	\$424,000	\$232,000	\$232,000	\$0	\$0	\$0	\$0	11/2016	On Time
AF Overhead and Implementation (AFSMO)	\$32,986,000	\$32,986,000	\$708,300	\$708,300	\$434,300	\$0	\$0	\$434,300	11/2025	On Time
AF Robotics 1	\$2,804,000	\$2,804,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2016	On Time
AF Robotics 2	\$614,000	\$614,000	\$0	\$0	\$0	\$0	\$0	\$0	05/2025	On Time
AF Robotics 3	\$614,000	\$614,000	\$0	\$0	\$0	\$0	\$0	\$0	05/2025	On Time
AF Robotics 4	\$614,000	\$614,000	\$0	\$0	\$0	\$0	\$0	\$0	05/2025	On Time
AF Transition Support	\$19,827,100	\$19,827,100	\$1,343,100	\$1,343,100	\$1,150,100	\$0	\$0	\$1,150,100	11/2021	On Time
AF TT&C	\$24,007,200	\$24,007,200	\$1,016,000	\$1,016,000	\$1,016,000	\$587,000	\$587,000	\$429,000	11/2019	On Time
AF TT&C Transition Support	\$958,800	\$958,800	\$459,300	\$459,300	\$262,300	\$0	\$0	\$262,300	12/2020	On Time
AF UAS 1	\$27,404,000	\$27,404,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2019	On Time
AF UAS 2	\$3,667,000	\$3,667,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2019	On Time
AF UAS 3	\$2,330,000	\$2,330,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2019	On Time
AF UAS 4	\$3,428,000	\$3,428,000	\$1,200,000	\$1,200,000	\$1,200,000	\$0	\$0	\$1,200,000	11/2019	On Time
AF Video 1	\$874,000	\$874,000	\$3,300	\$3,300	\$3,300	\$0	\$0	\$3,300	05/2025	On Time
AF Video 2	\$874,000	\$874,000	\$3,300	\$3,300	\$3,300	\$0	\$0	\$3,300	05/2025	On Time
AF Video 3	\$874,000	\$874,000	\$3,300	\$3,300	\$3,300	\$0	\$0	\$3,300	05/2025	On Time
AF Video 4	\$5,081,000	\$5,081,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2016	On Time
Total	\$565,776,400	\$565,776,400	\$8,247,100	\$8,247,100	\$8,247,100	\$760,000	\$760,000	\$7,487,100		

## United States Air Force (USAF) cont.

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	07/2020	On Time	
Unmanned Aerial Systems Operations	07/2020	On Time	
Air Combat Training Operations	07/2020	On Time	
Satellite Operations	01/2016	On Time	
Telemetry Operations	01/2025	On Time	
Robotics Operations	07/2020	On Time	
Other Operations	01/2016	On Time	

## United States Army (Army)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Army Microwave	\$43,200,000	\$43,200,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
Army Telemetry	\$27,700,000	\$27,700,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2018	On Time
Army Transition Support	\$17,792,000	\$17,792,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2021	On Time
Army TRR	\$17,700,000	\$17,700,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2020	On Time
Army UAS	\$532,879,000	\$532,879,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2020	On Time
Army Video	\$30,650,000	\$30,650,000	\$0	\$0	\$0	\$0	\$0	\$0	11/2018	On Time
Implementation and Oversight (Army Spectrum Mgt Office)	\$39,900,000	\$39,900,000	\$841,000	\$841,000	\$841,000	\$814,800	\$814,800	\$26,200	08/2025	On Time
Total	\$709,821,000	\$709,821,000	\$841,000	\$841,000	\$841,000	\$814,800	\$814,800	\$26,200		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	01/2018	On Time	
Unmanned Aerial Systems Operations	04/2020	On Time	
Microwave Operations	04/2018	On Time	
Tactical Radio Relay Operations	01/2016	On Time	
Robotics Operations	01/2017	On Time	
Other Operations	01/2016	On Time	

## Department of the Navy (DON)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
DoN ACTS	\$12,359,000	\$12,359,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2020	On Time
DoN HQ Transition Process Management	\$81,263,000	\$81,263,000	\$2,478,000	\$2,478,000	\$2,478,000	\$53,900	\$53,900	\$2,424,100	08/2025	On Time
DoN Other 1	\$174,036,000	\$174,036,000	\$3,102,000	\$3,102,000	\$3,102,000	\$0	\$0	\$3,102,000	11/2022	On Time
DoN Other 2	\$53,003,200	\$53,003,200	\$0	\$0	\$0	\$0	\$0	\$0	11/2022	On Time
DoN Other 3	\$161,366,600	\$161,366,600	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
DoN Other 4	\$151,585,400	\$151,585,400	\$600,000	\$600,000	\$600,000	\$0	\$0	\$600,000	08/2025	On Time
DoN Other 5	\$79,940,800	\$79,940,800	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
DoN Other Systems Transition Support	\$16,685,000	\$16,685,000	\$390,000	\$390,000	\$390,000	\$0	\$0	\$390,000	08/2025	On Time
DoN PGM	\$24,492,000	\$24,492,000	\$89,000	\$89,000	\$89,000	\$0	\$0	\$89,000	08/2025	On Time
DoN PGM Transition Support	\$16,685,000	\$16,685,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
DoN Robotics	\$111,058,000	\$111,058,000	\$0	\$0	\$0	\$0	\$0	\$0	05/2019	On Time
DoN Robotics Transition Support	\$16,685,000	\$16,685,000	\$50,000	\$50,000	\$50,000	\$0	\$0	\$50,000	08/2025	On Time
DoN Telemetry 1	\$30,857,400	\$30,857,400	\$75,000	\$75,000	\$75,000	\$0	\$0	\$75,000	08/2025	On Time
DoN Telemetry 2	\$27,297,900	\$27,297,900	\$75,000	\$75,000	\$75,000	\$0	\$0	\$75,000	08/2025	On Time
DON Telemetry 3	\$4,886,500	\$4,886,500	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
DoN Telemetry 4	\$41,300,600	\$41,300,600	\$75,000	\$75,000	\$75,000	\$0	\$0	\$75,000	08/2025	On Time
DoN Telemetry 5	\$1,284,700	\$1,284,700	\$0	\$0	\$0	\$0	\$0	\$0	08/2018	On Time
DoN TRR 1	\$126,800,000	\$126,800,000	\$345,000	\$345,000	\$345,000	\$0	\$0	\$345,000	08/2025	On Time
DoN TRR 2	\$5,300,000	\$5,300,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
DoN TRR 3	\$25,468,500	\$25,468,500	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time

Department of the Navy (DON) cont.

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
DoN TT&C SatOps	\$982,100	\$982,100	\$162,000	\$162,000	\$162,000	\$0	\$0	\$162,000	08/2025	On Time
DON UAS 1	\$6,400,800	\$6,400,800	\$0	\$0	\$0	\$0	\$0	\$0	01/2017	On Time
DON UAS 2	\$33,319,000	\$33,319,000	\$0	\$0	\$0	\$0	\$0	\$0	01/2020	On Time
DON UAS 3	\$31,402,400	\$31,402,400	\$0	\$0	\$0	\$0	\$0	\$0	01/2019	On Time
DON UAS 4	\$33,388,900	\$33,388,900	\$0	\$0	\$0	\$0	\$0	\$0	10/2021	On Time
DON UAS Transition Support	\$16,685,000	\$16,685,000	\$233,000	\$233,000	\$233,000	\$0	\$0	\$233,000	08/2025	On Time
DoN UAS-Video 5	\$94,200,000	\$94,200,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
DoN Video 1	\$1,543,000	\$1,543,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2018	On Time
DoN Video Transition Support	\$16,685,000	\$16,685,000	\$0	\$0	\$0	\$0	\$0	\$0	08/2025	On Time
Total	\$1,396,960,800	\$1,396,960,800	\$7,674,000	\$7,674,000	\$7,674,000	\$53,900	\$53,900	\$7,620,100		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	04/2019	On Time	
Unmanned Aerial Systems Operations	01/2019	On Time	
Tactical Radio Relay Operations	01/2020	On Time	
Air Combat Training Operations	04/2020	On Time	
Missile Operations	01/2019	On Time	
Satellite Operations	01/2016	On Time	
Telemetry Operations	10/2023	On Time	
Robotics Operations	01/2019	On Time	
Other Operations	04/2022	On Time	

## Defense Spectrum Office (DSO)

#### STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
DISA-1: 1755-1780 MHs Band Portal (Early Entry Portal)	\$20,700,000	\$20,700,000	\$7,514,000	\$7,514,000	\$7,514,000	\$7,513,900	\$7,513,900	\$100	07/2022	On Time
DISA-2: 1755-1780 MHz Band Portal (FSMS Portal)	\$22,900,000	\$22,900,000	\$0	\$0	\$0	\$0	\$0	\$0	07/2022	On Time
DISA-3: 1780-1850 MHz Band Compression and Optimization Tool	\$26,700,000	\$26,700,000	\$1,113,000	\$1,113,000	\$1,113,000	\$1,113,000	\$1,113,000	\$0	07/2025	On Time
DISA-4: 2025-2110 MHz Band Spectrum Management System	\$42,800,000	\$42,800,000	\$1,233,000	\$1,233,000	\$1,233,000	\$1,232,400	\$1,232,400	\$600	07/2025	On Time
DISA-5: 1755-1780 MHz Band Spectrum Sharing Test & Demonstration (SST&D) Program	\$105,900,000	\$105,900,000	\$8,005,000	\$8,005,000	\$8,005,000	\$7,907,300	\$7,907,300	\$97,700	01/2021	On Time
DISA-6/DISA-7: DoD Spectrum Relocation Management Team (DSRMT)/Pre-auction studies	\$28,000,000	\$28,000,000	\$3,447,000	\$3,447,000	\$3,447,000	\$3,303,000	\$3,303,000	\$144,000	07/2025	On Time
Total	\$247,000,000	\$247,000,000	\$21,312,000	\$21,312,000	\$21,312,000	\$21,069,600	\$21,069,600	\$242,400		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
N/A	N/A	N/A	

## Department of Energy (DOE)

## Bonneville Power Administration (BPA)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
13A	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$0	\$0	\$2,400,000	07/2019	On Time
3A	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$0	\$100,000	01/2018	On Time
3К	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$104,000	\$104,000	\$2,296,000	07/2019	On Time
4K-1	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$0	\$100,000	01/2018	On Time
4K-2	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$0	\$100,000	01/2018	On Time
Headquarters Overhead	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$0	\$0	\$1,600,000	07/2019	On Time
Т	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$0	\$100,000	01/2018	On Time
Total	\$6,800,000	\$6,800,000	\$6,800,000	\$6,800,000	\$6,800,000	\$104,000	\$104,000	\$6,696,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Microwave Operations	07/2017	On Time	

# Department of Homeland Security (DHS)

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Brownsville Station	\$5,410,000	\$5,410,000	\$5,410,000	\$5,410,000	\$5,410,000	\$0	\$0	\$5,410,000	07/2018	On Time
CBP Microwave	\$4,269,000	\$4,269,000	\$4,269,000	\$4,269,000	\$4,269,000	\$0	\$0	\$4,269,000	07/2018	On Time
HQ Project Management	\$26,275,000	\$26,275,000	\$25,417,000	\$25,417,000	\$25,417,000	\$0	\$0	\$25,417,000	07/2021	On Time
Video 1	\$266,243,000	\$266,243,000	\$266,243,000	\$266,243,000	\$266,243,000	\$56,000	\$56,000	\$266,187,000	07/2020	On Time
Video 2	\$178,152,000	\$178,152,000	\$178,152,000	\$178,152,000	\$178,152,000	\$147,200	\$147,200	\$178,004,800	07/2020	On Time
Video 3	\$3,576,000	\$3,576,000	\$3,576,000	\$3,576,000	\$3,576,000	\$0	\$0	\$3,576,000	07/2018	On Time
Video 4 OIG	\$6,220,000	\$6,220,000	\$6,220,000	\$6,220,000	\$6,220,000	\$0	\$0	\$6,220,000	07/2018	On Time
Total	\$490,145,000	\$490,145,000	\$489,287,000	\$489,287,000	\$489,287,000	\$203,200	\$203,200	\$489,083,800		

### STATUS OF SPECTRUM RELOCATION FUNDS

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	07/2018	On Time	
Microwave Operations	01/2018	On Time	

# Department of Justice (DOJ)

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Baltimore1	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Baltimore2	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Birmingham	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Buffalo	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Dallas	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Detroit	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Houston	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Jacksonville	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Knoxville	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Miami	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Minnesota	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Mobile	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
New Orleans	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Oklahoma City1	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Oklahoma City2	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Operational1	\$3,960,000	\$3,960,000	\$3,960,000	\$3,960,000	\$3,960,000	\$0	\$0	\$3,960,000	02/2018	On Time
Operational3	\$8,086,000	\$8,086,000	\$8,086,000	\$8,086,000	\$8,086,000	\$0	\$0	\$8,086,000	02/2018	On Time
Phoenix	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Portland1	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Portland2	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
San Diego	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Surveillance1	\$570,897,000	\$570,897,000	\$570,897,000	\$570,897,000	\$570,897,000	\$793,100	\$793,100	\$570,103,900	08/2023	On Time

## STATUS OF SPECTRUM RELOCATION FUNDS

# Department of Justice (DOJ)

## Department of Justice (cont.)

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Surveillance4	\$232,337,000	\$232,337,000	\$232,337,000	\$232,337,000	\$232,337,000	\$0	\$0	\$232,337,000	09/2023	On Time
Surveillance6	\$286,050,000	\$286,050,000	\$286,050,000	\$286,050,000	\$286,050,000	\$1,124,000	\$1,124,000	\$284,926,000	08/2023	On Time
Washington DC	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	02/2018	On Time
Total	\$1,104,330,000	\$1,104,330,000	\$1,104,330,000	\$1,104,330,000	\$1,104,330,000	\$1,917,100	\$1,917,100	\$1,102,412,900		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	07/2018	On Time	
Unmanned Aerial Systems Operations	07/2017	Complete	
Microwave Operations	07/2017	On Time	
Robotics Operations	07/2018	On Time	

# Department of Treasury

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
CI Techops	\$7,561,000	\$7,561,000	\$7,561,000	\$7,561,000	\$7,561,000	\$0	\$0	\$7,561,000	07/2020	On Time
TIGTA Techops	\$241,000	\$241,000	\$240,000	\$240,000	\$240,000	\$0	\$0	\$240,000	07/2016	On Time
Total	\$7,802,000	\$7,802,000	\$7,801,000	\$7,801,000	\$7,801,000	\$0	\$0	\$7,801,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	01/2016	Completed	

Department of Veterans Affairs (VA)

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
OIG VS	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$0	\$0	\$275,000	08/2016	On Time
Total	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$0	\$0	\$275,000		

#### STATUS OF SPECTRUM RELOCATION FUNDS

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	04/2016	On Time	

# Department of Transportation (DOT)

Federal Aviation Administration (FAA)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Elwood ARSR - New Lenox RCO LOW DENSITY RCLT DIGITAL 2 GHZ 97- 600 VDM CHANNELS	\$433,000	\$433,000	\$433,000	\$433,000	\$433,000	\$315,000	\$315,000	\$118,000	07/2020	On Time
Total	\$433,000	\$433,000	\$433,000	\$433,000	\$433,000	\$315,000	\$315,000	\$118,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Microwave Operations	01/2016	On Time	

## Department of Housing and Urban Development (HUD)

Inspector General (IG)

### STATUS OF SPECTRUM RELOCATION FUNDS

System/ Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
OIG-VS6	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$0	\$0	\$24,000	4/2017	On Time
Total	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$0	\$0	\$24,000		

	System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video	Operations	2/2015	Completed	

# National Aeronautics and Space Administration

#### STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
HQ Alternate Band Engineering Studies	\$547.000	\$547.000	\$547.000	\$547.000	\$547.000	\$0	\$0	\$547,000	09/2016	On Time
Englicering Studies	\$547,000	\$347,000	\$347,000	\$547,000	\$547,000	40	ψυ	\$547,000	07/2010	Oli Tillic
LaRC Research Aircraft	\$990,000	\$990,000	\$990,000	\$990,000	\$990,000	\$0	\$0	\$990,000	01/2017	On Time
Total	\$1,537,000	\$1,537,000	\$1,537,000	\$1,537,000	\$1,537,000	\$0	\$0	\$1,537,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Telemetry Operations	10/2016	On Time	

# Department of the Interior (DOI)

## National Park Service (NPS)

#### STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
USPP/NPS	\$8,946,000	\$8,946,000	\$8,946,000	\$8,946,000	\$8,946,000	\$0	\$0	\$8,946,000	03/2018	On Time
Total	\$8,946,000	\$8,946,000	\$8,946,000	\$8,946,000	\$8,946,000	\$0	\$0	\$8,946,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	01/2017	On Time	

# Department of the Interior (DOI)

## United States Geological Survey (USGS)

### STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
EHZ SEIS	\$28,668,000	\$28,668,000	\$28,668,000	\$28,668,000	\$28,668,000	\$0	\$0	\$28,668,000	09/2019	On Time
USGS Spectrum Relocation Program Office	\$7,012,000	\$7,012,000	\$7,012,000	\$7,012,000	\$7,012,000	\$0	\$0	\$7,012,000	09/2021	On Time
Total	\$35,680,000	\$35,680,000	\$35,680,000	\$35,680,000	\$35,680,000	\$0	\$0	\$35,680,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Microwave Operations	01/2018	On Time	

# United States Capital Police (USCP)

## STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
Talisman Gold	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	N/A	N/A
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	01/2016	Completed	

## United States Agency for International Development (USAID)

### STATUS OF SPECTRUM RELOCATION FUNDS

System/Program Name	Original Estimated Transition Costs	Adjusted Estimated Transition Costs	SRF Transfers this Reporting Year	Total SRF Transfers	Adjusted System Total	Costs Incurred this Reporting Year (Outlays)	Cumulative Outlays	SRF Balance	Estimated End Timeline for Spending Funds (Month/Year)	Spending Status
WESTX-1860	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000	03/2016	On Time
Total	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$0	\$150,000		

System Use	Estimated Completion of Transition Timeline (Month/Year)	Status	Comments
Video Operations	01/2015	Completed	