

Department of Defense (DoD)
Agency: Air Force
Transition Plan for the 1695-1710 MHz Band

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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

DEPARTMENT OF THE AIR FORCE
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DOD Transition Plan for 1695-1710 MHz Band
Tab B: General Information

1	This Transition Plan includes pre-auction planning costs, as defined in Section O.2 of Annex O:		
	a. Total pre-auction planning costs (\$M):		\$0.100
	b. The subtotal amount, if any, of pre-auction planning costs requested for pre-auction transfer (\$M):		\$0.100
	c. The subtotal amount, if any, of pre-auction planning costs incurred after June 28, 2010, but before February 22, 2012 (\$M):		\$0.100
	d. This organization attests that:		
	[1] To the fullest extent possible, this transition plan provides for sharing and coordination of eligible frequencies with non-federal users, including reasonable accommodation for the use of eligible frequencies by non-federal users during the transition period.	Yes	
	[2] This transition plan provides for non-federal users to be able to use eligible frequencies during the transition period in geographic areas where this organization does not use such frequencies.	Yes	
	[3] During the transition period, this organization will make itself available for negotiation and discussion with non-federal users not later than 30 days after a written request.	Yes	
	[4] During the transition period, this organization will make available to a non-federal user with appropriate security clearances any classified information regarding the relocation process, on a need-to-know basis.	Yes	
	[5] (Only applicable if the amount in 1b above is greater than \$0.00.) Funds transferred before an auction likely allow for timely implementation of relocation or sharing, thereby increasing net expected auction proceeds by an amount not less than the time value of the amount of funds transferred.	Yes	
2	There is additional information required to be included in the Transition Plan that is not included in this document because it is classified information, as defined in Section O.7 of Annex O.	No	
3	There is additional information required to be included in the Transition Plan that is not included in this document because it is <u>sensitive</u> information, as defined in Section O.7 of Annex O.	Yes	
4	This Transition Plan includes both sensitive and unclassified information and comprises a full version of the Transition Plan for this agency. The only information that has been excluded are those elements that are classified. (Note: A version of this plan that contains only publicly releasable information is provided separately.)	No	
5	a. Name of Responsible Officer:	Ms. Thu Luu	
	b. (Optional) Office:	AFSMO	
	c. (Optional) Telephone Number:	301-225-3848	
	d. (Optional) E-mail:	Thu.Luu@us.af.mil	
6	Total Transition Plan Cost (\$M):	2 of 10	\$88.976

06-04-2014

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DOD Transition Plan for 1695-1710 MHz Band
Tab C: Abstract

Serial Number	Center Freq./ Lower Band Limit (MHz)	Upper Band Limit (MHz) (if appl)	Emission Bandwidth (20 dB) (MHz)	Rx IF Bandwidth (3 dB) (MHz)	Bureau	System Use	System Name	Releasable System Name	Authorized Area of Operation	Tx State	Tx Latitude	Tx Longitude	Rx State	Rx Latitude	Rx Longitude	Sharing/Relocation	Alternate Frequency Assignment	Transition Timeline (Months)
C 050518	1685.7	N/A	*****		C	METSAT			SPCE	SPC	000000N	0750000W					N/A	
C 050518	1685.7	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-1	*****	SPC	000000N	0750000W	NE	*****	*****	Indefinite	N/A	39
C 050518	1685.7	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-1	*****	SPC	000000N	0750000W	NE	*****	*****	Indefinite	N/A	39
C 050518	1685.7	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	000000N	0750000W	HI	*****	*****	Indefinite	N/A	39
C 050518	1685.7	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	000000N	0750000W	HI	*****	*****	Indefinite	N/A	39
C 050518	1685.7	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	000000N	0750000W	AK	*****	*****	Indefinite	N/A	39
C 860054	1698	N/A	*****		C	METSAT			SPCE	SPC	XXXXXXX	XXXXXXX					N/A	
C 860054	1698	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39
C 860054	1698	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860054	1698	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860054	1698	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860054	1698	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
C 860054	1698	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
C 860055	1702.5	N/A	*****		C	METSAT			SPCE	SPC	XXXXXXX	XXXXXXX					N/A	
C 860055	1702.5	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39
C 860055	1702.5	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860055	1702.5	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860055	1702.5	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860055	1702.5	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
C 860055	1702.5	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
C 860056	1707	N/A	*****		C	METSAT			SPCE	SPC	XXXXXXX	XXXXXXX					N/A	
C 860056	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39
C 860056	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860056	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860056	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
C 860056	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
C 860056	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
AF-NSP-1	1687.1	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39
AF-NSP-2	1687.1	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39

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Serial Number	Center Freq./ Lower Band Limit (MHz)	Upper Band Limit (MHz) (f appl)	Emission Bandwidth (20 dB) (MHz)	Rx IF Bandwidth (3 dB) (MHz)	Bureau	System Use	System Name	Releasable System Name	Authorized Area of Operation	TX State	TX Latitude	TX Longitude	RX State	RX Latitude	RX Longitude	Sharing/ Relocation	Alternate Frequency Assignment	Transition Timeline (Months)
AF-NSP-3	1687.1	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
AF-NSP-4	1687.1	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
AF-NSP-5	1701.3	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39
AF-NSP-6	1701.3	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
AF-NSP-7	1701.3	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
AF-NSP-8	1701.3	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
AF-NSP-9	1701.3	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
AF-NSP-10	1701.3	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
AF-NSP-11	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-2	*****	SPC	XXXXXXX	XXXXXXX	HI	*****	*****	Indefinite	N/A	39
AF-NSP-12	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
AF-NSP-13	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
AF-NSP-14	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-3	*****	SPC	XXXXXXX	XXXXXXX	AK	*****	*****	Indefinite	N/A	39
AF-NSP-15	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39
AF-NSP-16	1707	N/A	*****	*****	AF	METSAT	*****	AF-METSAT-4	*****	SPC	XXXXXXX	XXXXXXX	GU	*****	*****	Indefinite	N/A	39

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Tab D: Transition Timeline

Serial Number	Geographic Location	Timeline (Months after Transition Start)		
		Temporary Sharing	Indefinite Sharing	Vacate Assignment
N/A	N/A	N/A	N/A	N/A

System Name	Releasable System Name	System ID	Releasable System ID	Total Pre-Auction Costs (\$M)	Pre-Auction Transfer Requested (\$M)	Pre-Auction Costs Incurred between 6-28-2010 and 2-22-2012 (M)	Equipment-Related Costs (\$M)	Deployment-Related Costs (\$M)	Total Cost for System (\$M)	Begin Expenditure of Funds	End Expenditure of Funds	Costs Associated with Expanded Capability	Description of Expanded Capability	Explanation/ Justification
*****	AF-METSAT-1	*****	AF-1				\$ 2.323	\$ 3.111	\$ 5.434	1	120			Monitoring Capability
*****	AF-METSAT-2	*****	AF-2				\$ 7.215	\$ 6.476	\$ 13.691	1	120			Monitoring Capability
*****	AF-METSAT-3	*****	AF-3				\$ 9.588	\$ 8.835	\$ 18.423	1	120			Monitoring Capability
*****	AF-METSAT-4	*****	AF-4				\$ 16.542	\$ 11.359	\$ 27.901	1	120			Monitoring Capability
*****	Monitoring Hub	*****	AF-5				\$ 1.538	\$ 18.170	\$ 19.707	1	120			Monitoring Capability
*****	AF METSAT Pre-Auction	*****	AF-6	0.100	0.100	0.100	0.000	0.000	\$ 0.100	1	1			AFWA Pre-Auction Costs
*****	1695-1710 MHz Portal (ITS)	*****	AF-7					2.220	\$ 2.220	1	120			NOAA managed portal development and operation is estimated to cost \$20 million over 10 years. The DoD share of this cost is one-third (\$6.67 million). The Air Force share of the DoD cost is one-third (\$2.22 million).
*****	AF Implementation and Oversight	*****	AF-9	0.000	0.000	0.000	0.000	1.500	\$ 1.500	1	120			AF portion of ITS Portal Development and O&M, and Service Directed Analysis, Coordination, and Reporting O&M

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Tab F: NTIA Interactions

Interaction required with NTIA to implement this Transition Plan	
1	<u>Federal Communications Commission (FCC) band allocation rules development and adoption.</u> The allocation for and use of this band by non-federal fixed and mobile users will require the development of specific technical rules governing non-federal operations, such that sharing of the band between federal and non-federal users is feasible and jointly successful. These rules must be adopted prior to the auction of the 1695-1710 MHz band such that potential licensees are fully aware of the requirements that they must comply with to begin operations in the band.
2	Development of Coordination Guidelines For Federal Agencies and Industry: Given the fact that most federal operations will still be in the band upon the award of licenses by the FCC and some federal operations will continue indefinitely in the band, specific coordination guidelines must be developed and published by NTIA (for federal agencies) and the FCC (for non-federal licensees).

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Tab G: Identification of Excluded Classified and Sensitive Information

Serial Number	Description of Classified or Sensitive Information	Reason for Exclusion
All	Tab C. Upper Band Limit (MHz) (if appl) Tab C. Emission Bandwidth (20 dB) (MHz) Tab C. Rx IF Bandwidth (3 dB) Tab C. System Name Tab C. Authorized Area of Operation Tab C. Tx Latitude and Longitude Tab C. Rx Latitude and Longitude Tab C. Alternate Frequency Assignment (MHz) Tab E. System Name Tab E. System ID Tab I. (if appl)	Sensitive

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Tab H: Factors that could Impact Fulfillment of Transition Plan

	Factor	Impact on Fulfillment of Transition Plan
1	Spectrum Monitoring Equipment	The Air Force cannot implement and execute this transition plan without spectrum monitoring systems at our installations.
2	Coordination	DoD anticipates that it will take DOC 39 months to develop the coordination portal. Any delay of the coordination portal development may affect DoD's ability to support coordination.
3	Availability of Spectrum Relocation Fund (SRF) Funding	All timelines in this plan are based on the assumption that funding will be received three months after the close of the auction. Should the receipt of funds change, timelines may need to be adjusted accordingly.
4	Availability of Spectrum Relocation Funding to provide a Coordination Portal Capability	The coordination process for wireless licensees will include a requirement to perform interference analyses based on wireless build-out plans. This coordination effort will be conducted through a DOC web-based portal capability, which will require time to develop and implement. Any delay in receipt of funds will induce delays in development of the portal.
5	Follow-on System Schedule and Operational Capability	If NOAA encounters delays or failures in follow-on weather satellite systems, then reliance on legacy GOES and POES systems must be sustained for DoD operations and resource protection.
6	General Funding	One of the primary factors that could limit the implementation of this transition is the actual receipt of funding from the 1695-1710 MHz auction to execute this plan. In general, USAF transition efforts will initiate upon receipt of the funds, not prior to or at the conclusion of the auction, and will be executed by subject matter experts as appropriate. Once funding has been received by these entities, the timeline noted in Tab C will become the baseline transition timeline for when the USAF will begin coordination with auction winners to allow for temporary geographic sharing pursuant to an applicable sharing coordination process.
7	Incumbent Support	Incumbents will support interference testing to determine feasibility of co-existence and necessary equipment alterations, and they will support as necessary to address interference issues.
8	Protection Distances	Adequate protection distances based on CSMAC analyses need to be established for all affected AF systems. Failure to establish such distances could hinder implementation of the transition plan.

Tab C, the "N/A" denotes that no value was listed in the frequency assignment.

USAF-MET-3 30 MHz receive passband, 17 ft geo antenna

USAF-MET-4 30 MHz receive passband, 16 ft geo antenna

USAF-MET-5 30 MHz receive passband, 17 ft geo antenna

USAF-MET-10 10 ft polar antenna

USAF-MET-11 3 m polar antenna

USAF-MET-12 MTSAT-HRIT (Japan), 16 ft geo antenna

USAF-MET-13 MTSAT-HRIT (Japan), 17 ft geo antenna

USAF-MET-14 MTSAT-HRIT (Japan), 10 ft geo antenna

USAF-MET-15 MTSAT-HRIT (Japan), 17 ft geo antenna

USAF-MET-10 EUMETSAT, 10 ft polar antenna

USAF-MET-11 EUMETSAT, 3 m polar antenna