Federal Agency Operations in 1755-1850 MHz

Commerce Spectrum Management Advisory Committee May 25, 2011

Federal Agency Assignment Table

The number of actual systems, or number of equipments, may exceed and sometimes far exceed, the number of frequency assignments in a band. Also, a frequency assignment may represent, a local, state, regional, or nationwide authorization. Therefore, care must be taken in evaluating bands strictly on the basis of assignment counts or percentages of assignments.

1755 - 1850 MHz Band															
FEDERAL EXCLUSIVE BAND															
	FIXED MOBILE SPACE OPERATION (Earth-to-Space)														
		TYPE OF APPLICATION													
AGENCY	AERONAUTICAL TELEMETRY	AIR GROUND AIR OPERTIONS	EXPLOSIVE ORDNANCE DISPOSAL	FIXED SATELLITE	FLIGHT TELEMETRY	FLIGHTTESTING	LAND RADIOLOCATION	LAND MOBILE OPERATIONS	MOBILE	MOBILE SURFACE TELEMETRY	POINT TO POINT DATA LINK	SPACE OPERATIONS	SPACE TELECOMMAND	RESEARCH DEVELOPMENT TESTING EVALUATION	TOTAL
A AGENCI											87				87
											37				- 07
AF	104	68	44		27				103	21			234	90	691
AID											1				1
AR	3	37					4		6		548			16	614
CG											2				2
DHS											161				161
DOC											12	1			13
DOE				2				5			314			12	333
DOI		1									72				73
DOJ											91				91
FAA											94				94
HHS											2				2
HUD											6				6
MC		24						7			172				203
					25			_			***			50	
N NASA	274	82			36	2		5	99 5	68	231	44	1	50	889 13
OPM	2				3	2			3		1		1		13
Т									-		6				6
TRAN									1		0				1
TVA									1		21				21
USCP											5				5
USPS											3				3
VA											4				4
TOTAL	383	212	44	2	66	2	4	17	214	89	1833	45	235	168	
															3314

- Fixed Point to Point
- Mobile Video Surveillance Transitioning from 1710-1755 MHz. Final conversion to digital not yet complete as development efforts continue to work on size, battery, and heat issues. Analog systems still have very wide receiver bandwidths (18 MHz).
- High Resolution Surveillance Video Links Nationwide as required
- Aeronautical Telemetry Combined with 1435-1525, 2200-2290, and 2360-2390 MHz to provide adequate data to monitor aircraft and missile performance for safety, and system test and development
- Remote Land Mobile Robotics Training and domestic use as required
- Unmanned Aerial Vehicles and Systems Expanding use for training but also domestic operations

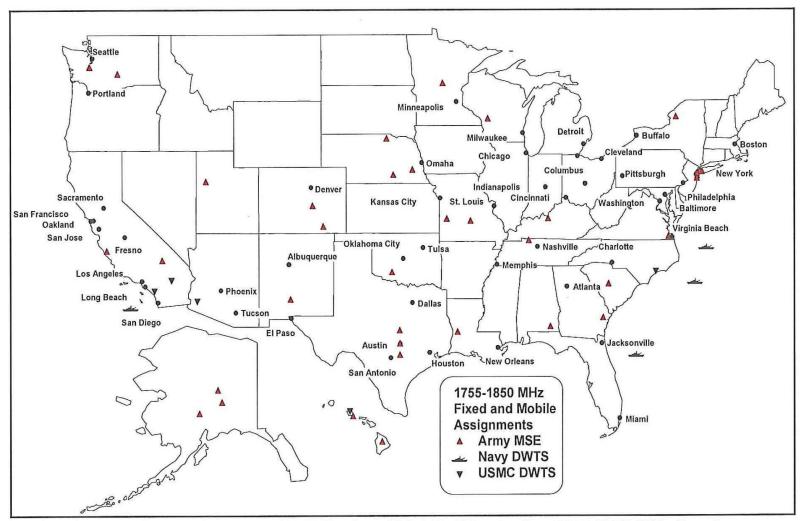


Figure 9. Concentrations of Fixed and Mobile Sites in the 1755-1850 MHz Band.

Tactical Radio Relay – Requires 90 MHz up and down links (matched to 1300-1390 MHz. Many of the systems operate up to 2600 MHz. Some only operate up to 1850 MHz.

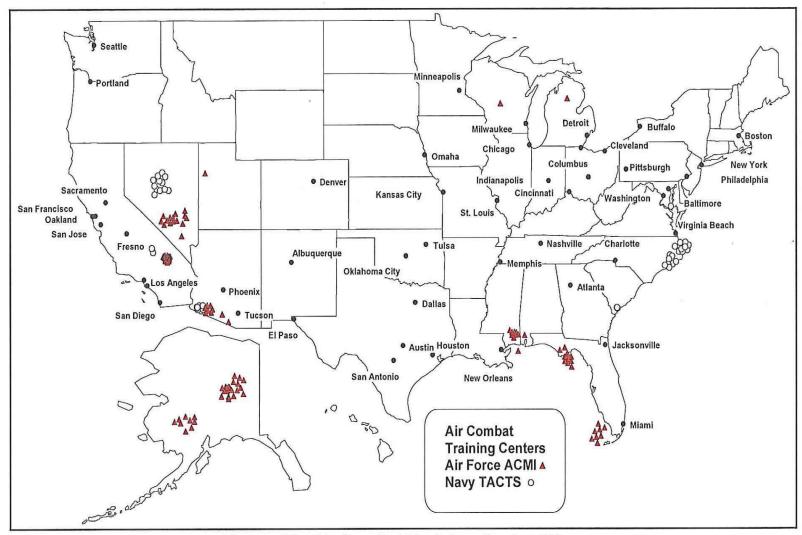


Figure 10. Air Combat Training Center Sites.

Air Combat Training Systems – Built into tactical aircraft for training. Operate as part of an airborne and ground-based network for recording air combat performance.

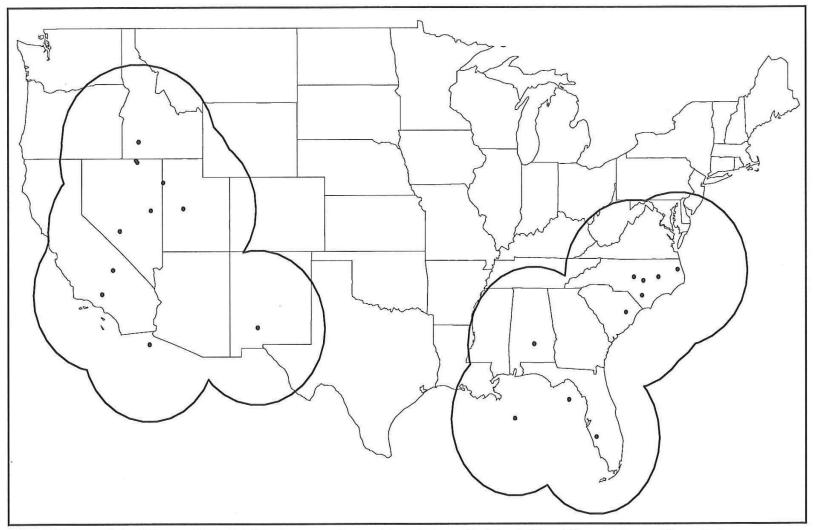


Figure 11. Line-of-Sight Distances from Precision Guided Munitions Operational Areas.

Precision Guided Munitions – Operated at training ranges with aircraft potentially at high altitude.

Satellite Control Uplinks – Communicate commands to GSO and NGSO satellites from 1761-1842 MHz in 4.004 MHz channels. Located at points on the east and west coasts and a few in the interior to maintain contact.

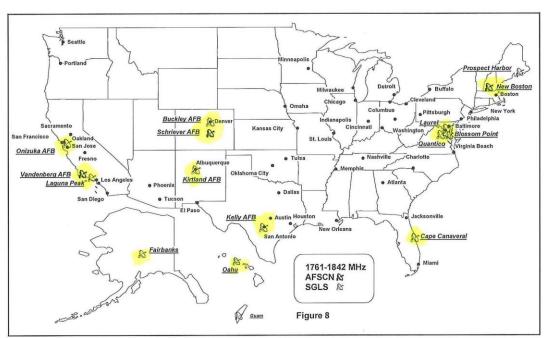


Figure 8. Satellite Control Network Sites.

<u>Satellites Supported</u>. The following is an unclassified summary of typical satellite systems supported by DOD.

Unclassified Summary of Typical Satellites Supported by DOD

Short Name	Orbit*
USGCSS PH 2/3/3B	GEO
FLTSATCOM	GEO
MILSTAR	Inclined GEO
UFO	GEO
Skynet (UK)	GEO
NATO III/IV	GEO
DSP	
SBIRS (Planned)	GEO
USGAE	GEO
USGBS	GEO

Short Name	Orbit*			
USGCSS PH5	GEO			
USOBO	GEO			
DMSP	Non-GEO			
GPS	Non-GEO			
STS (Shuttle)	Non-GEO			
GFO	Non-GEO			
P-Series	Non-GEO			
USAPEX	Non-GEO			
OTF	Non-GEO			
Various R&D	Non-GEO (LEO, HEO)			

^{*} Note: Geostationary Orbit (GEO), Highly Elliptical Orbit (HEO), Low Earth Orbit (LEO)

NTIA Special Publication 01-46 The Potential For Accommodating Third Generation Mobile Systems in the 1710-1850 MHz band

http://www.ntia.doc.gov/ntiahome/threeg/33001/3g33001.pdf