



**International Consortium
for Telemetry Spectrum**



Encroachment Threats to Aeronautical Telemetry in the USA: Update #11

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**36th Meeting of the International Consortium for Telemetry Spectrum
Las Vegas USA, 28 October 2015**



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1755-1850 MHz Band Repurposing

- ❖ Presidential Directives driving the initiative
 - ❖ June 2010 and July 2013
- ❖ Sharing is the new paradigm



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1755-1850 MHz Band Sharing Studies

- ❖ Three major studies were conducted:
 - (1) NTIA led assessment 2011 – 2012
 - (2) PCAST report 2012
 - (3) Joint Government and Industry CSMAC effort

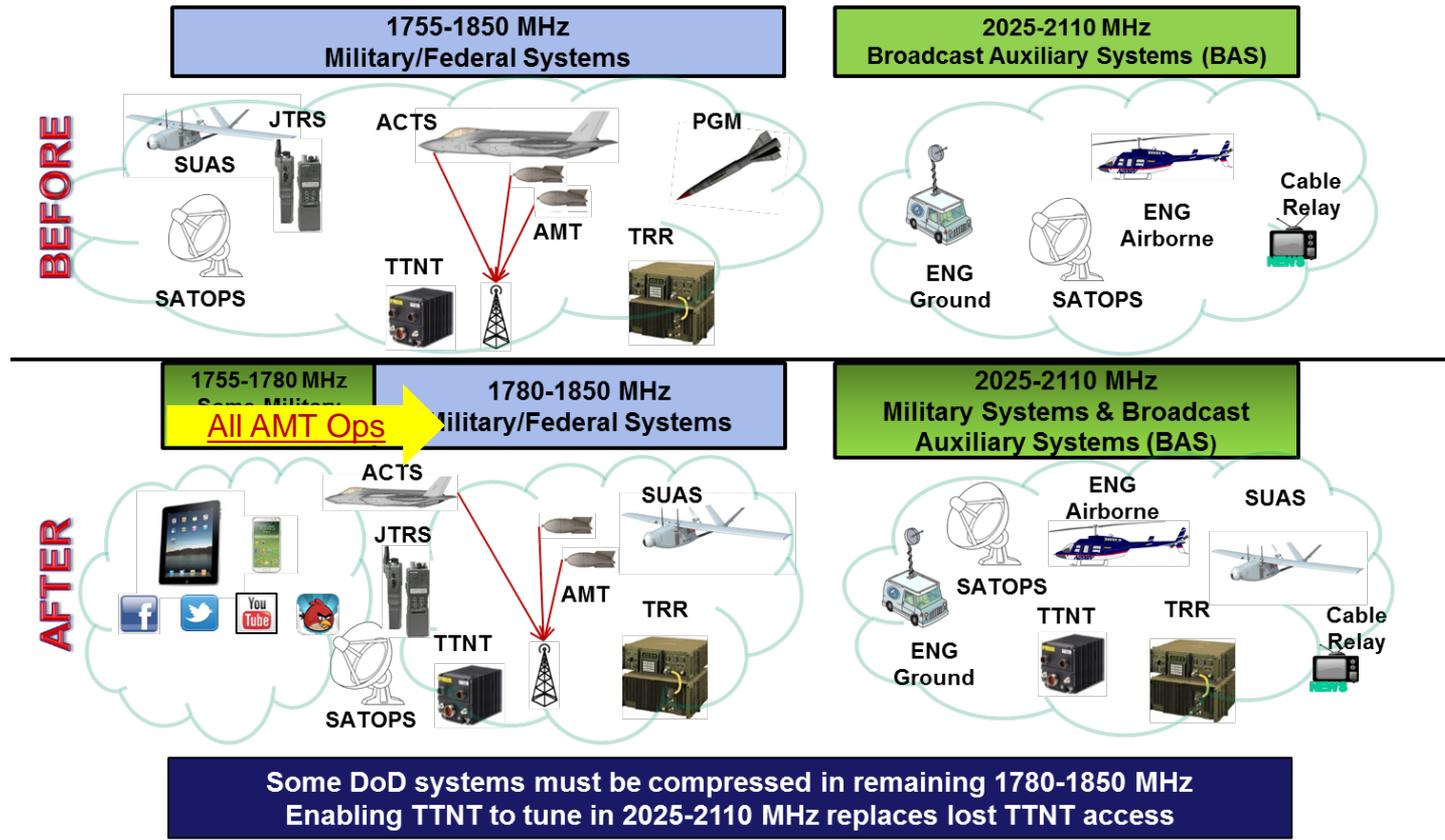
- ❖ To break the stalemate the DoD submitted an alternative proposal.



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A Complex Hybrid Sharing Solution



AMT - compress telemetry operations currently in 1755-1850 MHz into 1780-1850 MHz and leverage C-band spectrum access



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What This Means to AMT

- ❖ CSMAC proved AMT cannot share with 4G/LTE systems
- ❖ WRC 2007 studies proved AMT cannot share with the ENG Services
- ❖ **Demand for airborne system testing and telemetry data collection will remain high at our ranges for the foreseeable future, both for current and new systems entering the testing cycle**
- ❖ Compression alone for AMT into 1780-1850 MHz is not possible



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What the DoD RDT&E Ranges Will Do

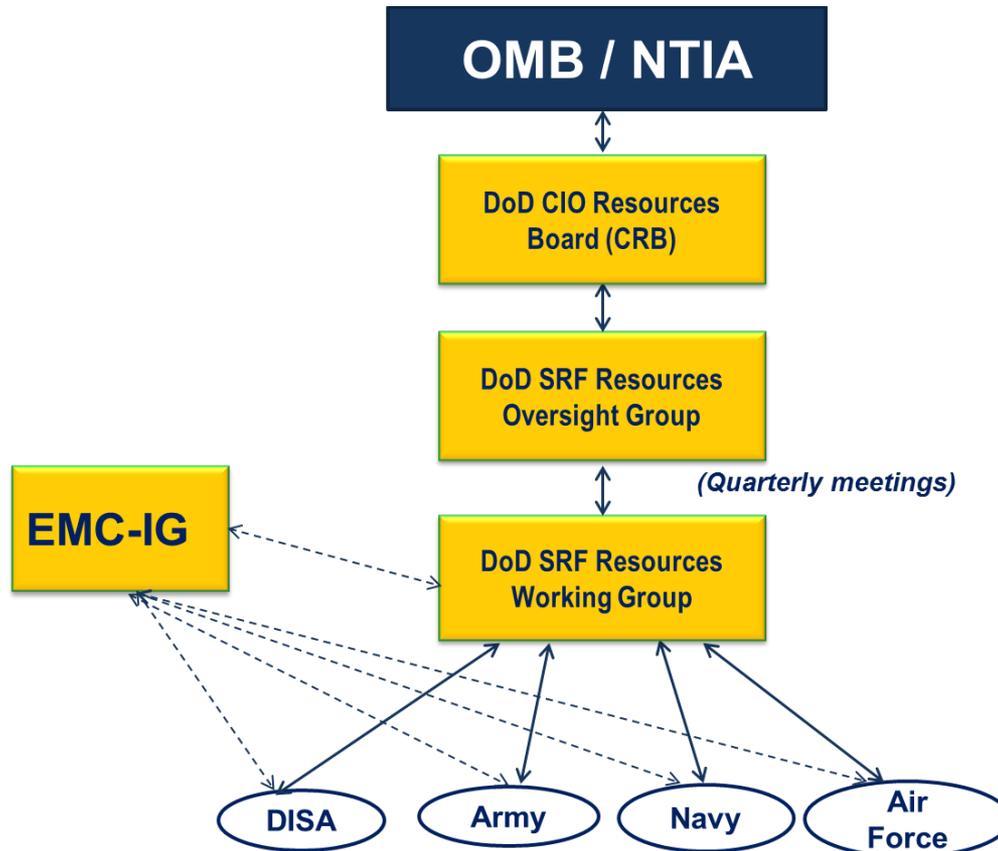
- ❖ Compress AMT capabilities into 1780 - 1850 MHz band
- ❖ Auction proceeds, or SRF funding, will be used to execute the Military Services approved 1755 – 1780 MHz Transition Plans to:
 - * Re-design fixed frequency AMT transmitters.
 - * Replace remaining Tier 0 (FM waveform) transmitters with Tier 1 & (perhaps) Tier 2 spectrum efficient AMT transmitters
 - * Make all Ground Stations/aircraft L-/S-/C-Band capable
 - * Filter AMT receivers & antennas to protect them from LTE systems
 - * Buy new Mobile AMT transmitter capabilities
 - * Buy new frequency monitoring hardware/software/personnel
 - * Secure new 1780-1850 MHz band frequency assignments.



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Spectrum Relocation Oversight





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Cross & Intra-Service Relocation Collaboration

- ❖ RCC TG and FMG used heavily
- ❖ DoD national coordination groups like the RSRWG and S4G
- ❖ Each Range is executing an Installation Upgrade program:
 - Description of Project Scope & Objectives
 - Project Management & Risk Management Plans
 - Acquisition strategy, funding profile & schedule
 - Assigned Project Lead, responsibilities & authority

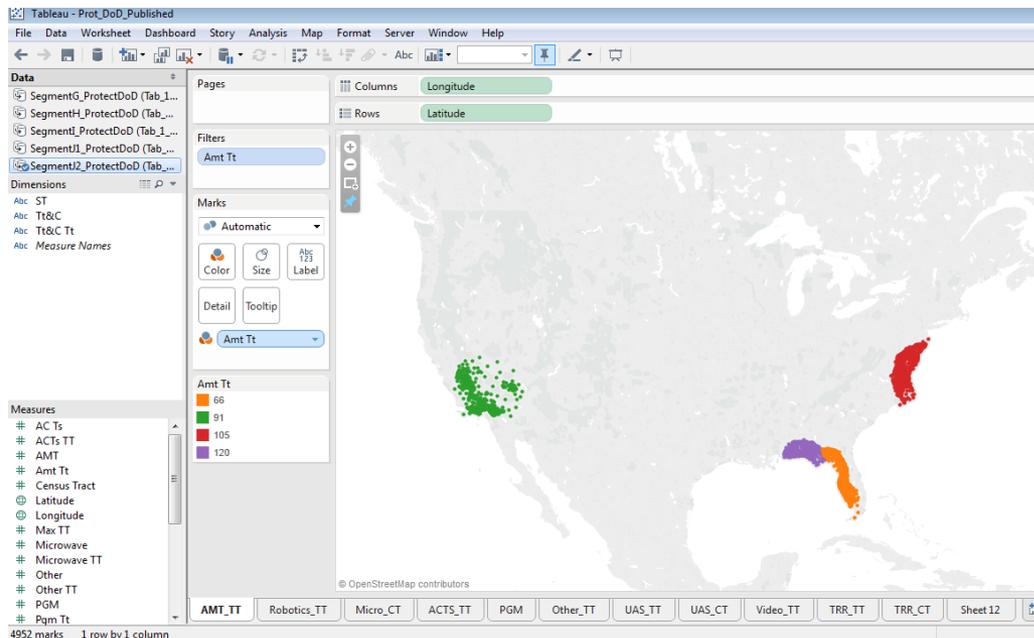


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Shared Use Prior to AMT Migration via A New WEB based Coordination Portal

- ❖ FCC Public Notice (DA 14-1023, 18 July 2014) provided guidance regarding coordination between Federal/non-Federal shared use of the 1755-1780 MHz band. This coordination between the commercial LTE users and the current DoD AMT operations will be done through a **portal**.



This image provides graphical depiction of the coordination zones associated with DoD AMT systems operating in the 1755-1780 MHz band.



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