



WRC-15: Challenges to the Satellite Industry on Technological Convergence

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WBU-ISOG FORUM, 15th May 2013



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WRC-15 Agenda



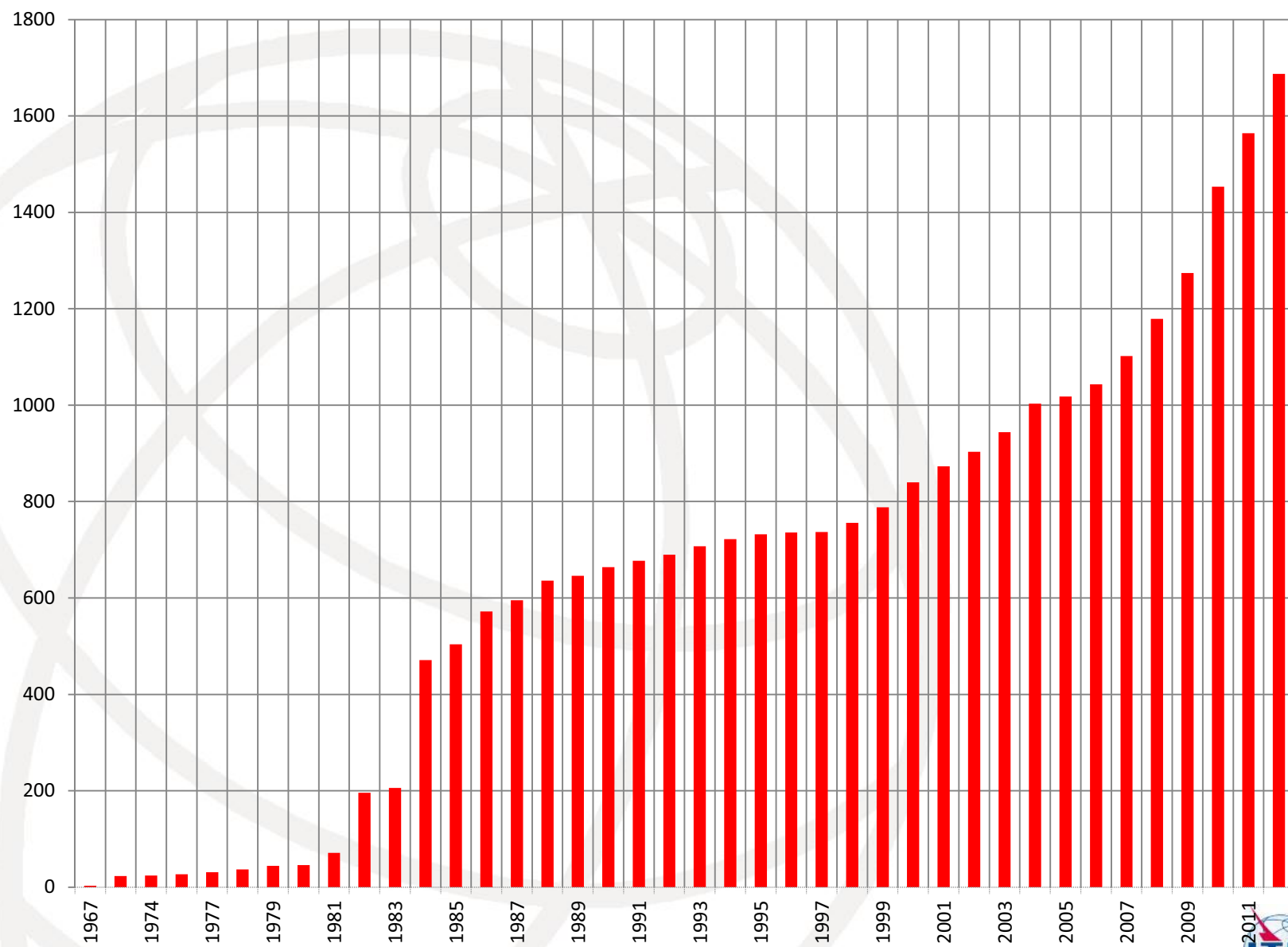
- ✓ **Mobile broadband (IMT)** *AI 1.1*, UHF *AI 1.2*
 - ✓ PPDR (emergency comms) *AI 1.3*
 - ✓ Amateur service *AI 1.4*
- ✓ **UAS satellite component** *AI 1.5*
- ✓ **FSS/MMSS in 7-8 GHz, 10-17 GHz** *AI 1.6.1, AI 1.6.2, AI 1.9.1, AI 1.9.2*
- ✓ **MSS 22-26 GHz** *AI 1.10*
- ✓ **MSS feederlinks in 5 GHz (non-GSO)** *AI 1.7*
- ✓ **EESS in 7-8 GHz & extension of 9.3-9.9 GHz** *AI 1.11, 1.12*
- ✓ **ESV regulations** *AI 1.8*
- ✓ **SRS in 400 MHz** *AI 1.13*
 - ✓ Maritime mobile: on-board comms & AIS *AI 1.16, AI 1.15*
 - ✓ Aeronautical mobile: WAIC *AI 1.17*
 - ✓ Radars for ITS in 78 GHz *AI 1.18*
 - ✓ UTC *AI 1.14*

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- ✓ **Resolution 86** *AI 7*
- ✓ **Dir's Report** *AI 9.1, AI 9.2, AI 9.3,*
 - ✓ Bringing into use/continuing use?
 - ✓ No. 11.41 (missing coordination agreements)?
 - ✓ No. 13.6 ?
 - ✓ Harmful interference?
 - ✓ Steerable beams?
 - ✓ Operation of FSS E/S in 3.4-4.2 GHz for aid to safe operation of aircraft and meteo. information in R1?
 - ✓ Pico/nano satellites?
 - ✓ International recognition of thousands of VSAT, DTH...typical stations?
 - ✓ ...

Cumulative Distribution Function (No. of Earth Stations vs Year of Receipt)



Recorded C-band Earth Stations (Before 2000)



Recorded C-band Earth Stations (Up to 2007)



Recorded C-band Earth Stations (Up to 2013)



Recorded C-band Earth Stations (Up to 2013)



Recorded C-band Earth Stations (Up to 2013)



How to provide international recognition to thousands of VSAT, DTH...typical stations in C-band?

- RR No. 11.17: ...except for mobile earth stations, **individual notices** of frequency assignments are however necessary...
- Possible approaches...until more definite solutions (WRC-15)
 - Individual notifications of small E/S (~10-20) with a note indicating that hundreds of similar E/S are in operation (E/S Administration's action);
 - Note attached to associated E/S in beams indicating that hundreds of similar E/S are in operation (satellite Administration's action)
 - **“Regional” databases with of up-to-date information on the allocation and use of the following frequency bands:
3400 – 4200, 4500 – 4800, 5850 – 6425 & 6725 – 7025 MHz**



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Merci!



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