

IMT: Future Bands

WRC-15 Agenda Follow-up Forum
ITU RRS -14 Americas
July 17 – 18, Tobago



WRC-15 Agenda item 1.1

The availability of spectrum for mobile broadband applications over the next 10 to 15 years and the potential effects on broadcasters in the Caribbean

The importance of broadcasters

- Safeguarding access to information, freedom of expression
- Preservation of culture
- Promotion of socio-economic development
- Mitigation of and recovery from disaster

Broadcasters' use of spectrum

Making programmes

- Wireless cameras and wireless microphones in production e.g. PMSE
- Satellite news gathering

Distributing programmes

- Terrestrial – Television as well as radio on shortwave, medium wave, FM or digital radio
- Satellite – radio or DTH
- International distribution systems via satellite to local transmitters

Broadcasters' consideration of IMT

World Broadcasting Unions:

Technical Committee

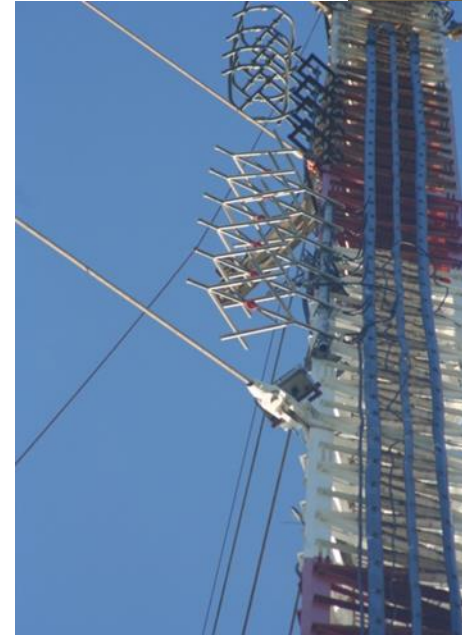
- DTV
- Satellite Distribution Systems

ISOG

- C-band

BBC services in the Americas

- BBC operates a number of services in North, Central and South America and the Caribbean. Services largely perceived as terrestrial by listeners and viewers all require satellite link to reach terrestrial distribution platform.
- BBC content distribution in North, Central and South America is via partnerships
- In Caribbean region BBC content distribution is via partnerships and a number of 24hour FM relays



BBC concerns about C-band

- World Service and World News rely heavily on C-band outside Europe for programme distribution – no alternative option
- All earth stations are receive-only and often part of an on-going distribution chain

Registered BBC WS earth stations	Total BBC WS earth stations	Weekly audience BBC WS
10	1200	192 million

- Most local administrations do not require registration of receive-only earth stations – so **no protection available**
- Interference causes break-up or total loss of audio – cases from Caribbean, across Africa, South and South East Asia
- Mixed success of mitigation techniques

Interference to BBC C-Band reception in Jamaica

- BBC World Service has held an FM radio licence for five relays in Jamaica since 2002
- Since June 2010, C-Band satellite reception of Intelsat 805 at the BBC FM relay at Coopers Hill, Kingston, Jamaica, has had interference
- BBC has visited Coopers Hill site to try and resolve interference by changing LNBS and installing C Band filters with assistance from RJR, our partner in Jamaica
- Only solution was to install an FM off-air receiver and rebroadcast the programmes from our Orcarabesa relay – but now seeing increased interference there as well

Interference to BBC C-Band reception in Trinidad and Tobago

- BBC 98.7 FM Trinidad and Tobago programs downlinked from Intelsat 805 at 3.9347GHz
- Interference from licensed Wi-Max operation at 3.5GHz to BBC reception in Port of Spain.
- BBC satellite dish installation registered with TATT
- Interference to BBC satellite reception due to High-Gain / wide band nature of satellite reception equipment.



WBU-ISOG Position on C-band



Position for the band 3,400-4,200 MHz

Regarding the C-band FSS downlink frequencies 3,400-4,200 MHz, these are well used throughout the world for FSS applications, and will continue to be used for the foreseeable future.

Sharing studies have already been conducted in Report ITU-R M.2109, which show that the required separation distances are such that sharing is not feasible.

Hence, this band is not suitable for identification for terrestrial IMT by WRC-15.

WBU-TC Position on DTV

Broadcasting & Satellite

DTV: No change to spectrum allocations at UHF frequencies (470 – 694/698 MHz)

C-band: No change to the spectrum allocations

- C-band (3.7 – 4.2 GHz) or
- Extended C-band (Fixed Satellite Service)

CBU position

“...Contiguous spectrum should be allotted in the bands assigned to the broadcast service to allow for the robust delivery of high-quality media content, data and signalling that meets or exceeds the capabilities of current fixed and mobile reception and display devices.”

www.caribroadcastunion.org

