

# CITEL REGIONAL DIALOGUE

## Usage of C-Band (3.4–4.2 GHz) in the United States

Presented By

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# How is the C-band allocated in the U.S.?

Table of Frequency Allocations					3300-4200 MHz (SHF)	
International Table			United States Table		FCC Rule Part(s)	
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table		
3300-3400 RADIOLOCATION 5.149 5.429 5.430	3300-3400 RADIOLOCATION Amateur Fixed Mobile 5.149 5.430	3300-3400 RADIOLOCATION Amateur 5.149 5.429	3300-3500 RADIOLOCATION US108 G31	3300-3500 Amateur Radiolocation US108	Private Land Mobile (90) Amateur (97)	
3400-3600 FIXED FIXED-SATELLITE (space-to-Earth) Mobile Radiolocation	3400-3500 FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile Radiolocation 5.433 5.282 5.432		US342	5.282 US342		

\* Updated U.S. Frequency Allocation Table

# U.S. allocation continued..

Table of Frequency Allocations			3300-4200 MHz (SHF)		
International Table			United States Table		FCC Rule Part(s)
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table	
5.431	3500-3700 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 5.433		3500-3650 RADIOLOCATION G59 AERONAUTICAL RADIONAVIGATION (ground-based) G110 US245	3500-3600 Radiolocation	Private Land Mobile (90)
3600-4200 FIXED FIXED-SATELLITE (space-to-Earth) Mobile				3600-3650 FIXED-SATELLITE (space-to-Earth) US245 Radiolocation	
	5.435		3650-3700 US348 US349	3650-3700 FIXED FIXED-SATELLITE (space-to-Earth) NG169 NG185 MOBILE except aeronautical mobile US348 US349	Satellite Communications (25) Private Land Mobile (90)
	3700-4200 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile		3700-4200	3700-4200 FIXED NG41 FIXED-SATELLITE (space-to-Earth) NG180	International Fixed (23) Satellite Communications (25) Fixed Microwave (101)

How are the U.S. allocations used?

# 3400–3700 MHz Usage (Non-Federal)

- The United States has no fixed satellite earth station licensees for the 3400-3600 MHz band.
- In the 3650-3700 MHz band, the United States has ~86 grandfathered fixed satellite receive earth stations which provide international services. No new primary earth station applications are accepted.
- The 3600-3650 MHz band has feeder links including those for the Inmarsat System.

## 3400–3700 MHz Usage (Non-Federal)

- The United States has allocated the 3650-3700 MHz band for the terrestrial fixed and mobile services, to provide broadband wireless access.

## 3700-4200 MHz Usage (Non-Federal)

- The United States has 6298 registered or licensed fixed satellite service receive stations.
- There are currently 358 licensed terrestrial stations in this band, each containing one or more point to point paths operating in the band.

# 3700-4200 Usage (FSS)

- This band is heavily used by U.S.-licensed GSO FSS networks to provide a variety of key services such as video programming distribution, high speed data links, and satellite newsgathering to customers with high reliability.
- Critical public safety infrastructure is deployed in this band as well.

# 3700-4200 (FS)

- The 3700 - 4200 MHz band is allocated for fixed terrestrial microwave services on a shared basis with satellite.
- Fixed terrestrial stations in this band are typically used in a point to point configuration, either for private internal communications or common carrier communications.
- Some of these stations are used for critical safety-of-life communications and critical infrastructure.

# 3400-3650 MHz Usage (Federal)

- The United States has significant radar investments in the 3400-3650 MHz band that provide search and rescue capabilities, air marshalling and air traffic control (ATC) capabilities, safety of life capabilities, as well as national security capabilities.

# 3400-3650 (Shipborne Radar)

- Ship-based radars provide a mobile radar capability and are regularly and often used in very close proximity to land-based facilities, along coastal regions, as well as port facilities. Ship based radars operating within the band support airport surveillance radar (ASR) operations and safety of flight in the Air Traffic Control (ATC) environment, search and rescue, among other critical capabilities that benefit the global maritime community

# 3400-3650 (Airborne Radar)

- Airborne radars found in this band take advantage of the spectrum properties found at this wavelength to conduct long-range surveillance, target tracking and ATC. This system is a multifunction, phased-array radar that is deployed on surveillance aircraft. The aircraft carrying these radars are capable of worldwide operations.

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# Thank You