

Understanding UHF, VHF, AM, and FM in the F/A-18C Hornet

Effective radio communication in the F/A-18C Hornet depends not only on proper frequency presets but also on understanding the **radio bands** and **modulation types** used: **UHF**, **VHF**, **AM**, and **FM**. These terms describe **how** and **where** a signal is transmitted and received.

▣▣ Radio Bands: UHF and VHF

Band	Frequency Range	Use in F/A-18C	Notes
UHF (Ultra High Freq.)	225.000 – 399.975 MHz	Primary for military ATC, AWACS, strike coordination, and aircraft-to-aircraft comms	Most default military channels are UHF
VHF (Very High Freq.)	30.000 – 174.000 MHz	Used for ground comms (JTAC), ATC (civilian), and some regional towers	VHF is often used for ground-based ops or coalition forces

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- The **ARC-210** radios in the F/A-18C can operate in both UHF and VHF bands. Frequencies are manually entered or selected via preset channels.
 - Most **airborne assets (AWACS, tankers, flights)** will use **UHF**.
 - **Ground-based assets** (JTAC, civilian ATC, regional towers) may use **VHF**.

▣▣ Modulation Types: AM and FM

Modulation	Use Case	Supported in F/A-18C	Notes
AM (Amplitude Modulation)	Standard for aviation comms	✓ Yes	Used for most UHF/VHF radio calls (ATC, AWACS, flights)

Modulation	Use Case	Supported in F/A-18C	Notes
FM (Frequency Modulation)	Ground forces, JTAC, and CAS	✓ Yes	Typically used in VHF band (30–88 MHz); more resistant to static/interference

- **AM is default** and is used for nearly all aviation communications in DCS.
- **FM is used** when talking to **JTACs or ground units** via VHF (e.g., 30.00–76.00 MHz). The ARC-210 supports this, and DCS will auto-modulate based on frequency.

How to Know What You're Using

- When tuning radios in DCS, you don't explicitly select AM or FM—the **modulation is determined by the frequency entered**.
- Example:
 - 251.000 → UHF AM
 - 30.000 → VHF FM
 - 127.500 → VHF AM
- As a rule:
 - **Above 108 MHz = AM**
 - **Below 88 MHz = FM**
 - **Between 108-174 MHz = AM** unless specifically in FM JTAC band

Quick Comms Summary

Frequency	Band	Modulation	Typical Use
251.000	UHF	AM	AWACS / Tower
127.500	VHF	AM	Carrier ATC / Civil ATC
30.000	VHF	FM	JTAC / Ground troops
320.000	UHF	AM	Strike package net
268.000	UHF	AM	Tanker (Texaco)

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In Practice (DCS Tips)

- Use **AM for all aircraft/airfield comms** unless you're talking to **JTAC or infantry units**

- If using **SRS (Simple Radio Standalone)**, make sure your SRS settings allow **auto modulation switching** based on frequency.
 - The **Hornet's radios do not allow manually selecting modulation type**—it's automatic based on freq.
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