



SATCOM IW

What is SATCOM IW?

- The SATCOM Integrated Waveform (IW) is an enhanced method of multiplexing radios on the same satellite channel.
- It uses Time Division Multiple Access (TDMA) to allow for more access on the same channel.
- It is the replacement to legacy Demand Assigned Multiple Access (DAMA) SATCOM.
- It is a flexible waveform structure that allows communication accesses to be tailored based upon operational need.

Why do we need SATCOM IW?

- Military services continue to increase their usage of tactical satellite (TACSAT) terminals, with insufficient channels to support user requests.
- Aging satellites continue to degrade while waiting for replacement constellations.
- Mobile User Objective System (MUOS) development continues to slip, so no near-term replacement is available.

How does SATCOM IW work?

- One channel is assigned as the master and contains the forward orderwire (FOW).
- All other channels fall under the master channel and can be either 25 kHz or 5 kHz.
- Each channel can be configured based upon user requirements.

What are the benefits of SATCOM IW?

- SATCOM IW doubles the amount of users over legacy DAMA.
- Simplified user interface—SATCOM IW can be configured and usable in minutes.
- Data rates up to 56 kbps.
- Supports variable rate data. Data rate increases/decreases based on signal environment.
- Supports USB data and PDA-184. Reduces cost and improves data performance.
- Improved voice quality with Mixed Excitation Linear Prediction (MELP) VOCODER.
- Minimal impact to fielded radios (requires only a software upgrade in most cases).
- Minimal operator intervention (waveform sends sufficient information to set up radio services itself).
- Ease of use (based upon manufacturer implementation, with limited training requirements).
- Interoperable with DAMA SATCOM.

Is SATCOM IW currently available on any handheld radios?

- JITC certified SATCOM IW is available on the AN/PRC-148 JTRS Enhanced MBITR (JEM).