

# RADIO & TELEVISION NEWS

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MARS HQ. IS NERVE CENTER  
FOR MODERN DEFENSE  
COMMUNICATIONS PAGE 57





Over-all view of the headquarters stations of the Military Amateur Radio System (MARS) for the Army and Air Force, located in the Pentagon in Washington. Inset shows Sgt. Eugene Mendoza, U.S. Army Signal Corps, MARS operator, receiving message traffic from Cpl. Mary Laffer, receptionist. All personal message traffic is logged and assigned message number by receptionist.

## MARS' PENTAGON HEADQUARTERS

**T**HE contributions of amateur radio to national defense and public service are nowhere more in evidence than in the Military Amateur Radio System. MARS is a joint Army-Air Force project designed to: Create interest and further training in amateur radio; coordinate practices and procedures of amateur radio operations with those of military radio communications; and provide an additional source of trained radio communications personnel in the event of a local or national emergency.

The Headquarters stations for Army and Air Force MARS are housed in a single building, specially constructed on the concourse of the Pentagon, Washington, D. C. The custom installation was built by *Transmitter Equipment Manufacturing Company*, according to MARS specifications. Engineered by Al Hart (W3AX), WAR and AIR (military call signs of K4USA and K4AF, respectively) are geared to serve the present needs of amateur radio, but are planned so as to be adaptable to flexibility requirements of modern warfare and modern defense.

Each station has a 1000 watt transmitter and associated equipment, a master console, and two individual operating (QSO) booths.

Two equipment racks, one on either side of the transmitter, are mounted into the wall in each of the master control rooms.

Rack 1 contains an antenna multi-coupler, a *Magnecord* recorder and control panel, a beam control panel, transmitter control panel, and a BC 221 frequency meter. Rack 2 contains a *Hallcrafters* S-36A receiver, a *Hammarlund* SP 600JX receiver, patching panel, *Collins* 32-V1, and a *Plex-10* (expander compressor) amplifier.

The Master Control consists of a nine-position, two-channel audio mixing amplifier capable of utilizing inputs from microphones, turntables, remote lines and recorders; two *Collins* 75-A receivers, each with its own "Pandaptor"; a *Collins* 32-V2, used as driver for the local transmitter; single sideband selector which may be used with either of the receivers; and a control panel with controls providing beam rotation and indication, speaker selection, speaker volume control, transmitter control, remote control of tape recorder; and associated items such as "mike" receptacles, plug receptacles for keys, etc.

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*MARS' new, custom-built installation is geared to serve present amateur radio needs, yet it can be easily adapted to meet the flexibility requirements of modern warfare and defense.*

Cpl. Laffer patches a keying line from the local transmitter (center bank) into an adjoining studio at headquarters station.

