

CLARINET PILGRIM, CSUB RECEPTION

Five signal inputs to the Clarinet Pilgrim produce a single majority vote output, derived from an odd number of input channels.

Figure B-2 is the system required to produce the single output from the Clarinet Pilgrim.

- a. AN/WRR3 receiving set radio: Receiver is set at a constant 143.65 kHz; operators check signal quality every 8 hours as part of quality control.
- b. CV/483C/URA-17 converter, frequency shift: A device that converts audio to DC; the signal is then fed directly to AUX-1 of the Clarinet Pilgrim.
- c. Radio receiver R-1051D/URR: Two receivers used for frequency diversity. Their audio signals are fed to converter/comparator unit.
- d. CV-483C/URA-17 converter, frequency shift: A device that converts audio to DC, the signal is then fed directly to AUX-2 of the Clarinet Pilgrim.
- e. Clarinet Pilgrim R-1663 (XN-1/UR receiver), digital data: Channels A, B, and M are fed by the 100-kHz Loran signals received on the BESS antenna. The Clarinet Pilgrim takes three inputs from the Loran stations and two local inputs from the AUX-1 and AUX-2 channels, then combines them on a majority vote basis to give a single output that is fed to the DC patch panel.
- f. DC patch panel: Receives the signal output from the Clarinet Pilgrim; it is then fed to the terminal equipment.
- g. Data analysis center, DAC-V: A device that enables the operator to take distortion readings at the DC board.
- h. AN/FCC-70 terminal telegraph: Receives the signal from the DC patch panel, converting the DC signal to audio, combining it with other channels for a composite 16-channel tone pack and normalled back to the audio patch panel.
- i. Audio patch panel: Receives the composite tone pack from the terminal equipment, containing the Clarinet Pilgrim (CSUB), and feeds it to tech control.
- j. Quality monitoring equipment: Operators select the channel containing the Clarinet Pilgrim (CSUB) signal for audio and frequency tolerance checks.
- k. TS-629A/U audio level test panel: Operators check composite tone pack for correct level settings.
- l. TT-47J/UG teletype O/W: Send-and-receive device used for circuit coordination.