

Development of MFC for INDRA MK-II system

1. **Objective:** Presently INDRA Mk-II radar is equipped with qty 02 Multi Function Console for Human machine interface. Due to advancement and up-gradation of technology, spares of subject console are not readily available. To overcome these issues with enhance technology; it is proposed to develop the new MFC for INDRA Mk-II.

2. **Description:** The Display System of INDRA-II Radar consists of two identical Display Consoles and one System Control Unit. The information displayed on both the screen is always identical for an identical selection of video or synthetic pictures. The Display Console displays the relevant videos and synthetic information on its screen. It passes commands from the users through the keyboard to SPU/RDP on RS 232 serial channels to perform accordingly. Functionally the display consists of the following modules :- Power Control Panel, Monitor , MMI Assembly ,Card Rack Assembly ,Power Supply ,Exhaust and Fan Trays. In addition to above a display monitor and panel for debug port are present. The Power Control Panel provides the power ON control and distribution of AC mains to various modules: Monitor, Power Supply and LCD Terminal in MMI Assembly, Exhaust and Fan Trays.

The MMI desk consists of illuminated push button switches, track ball and LCD terminal and communicates the operator switch selections, track ball movement and keyboard commands to the card rack on three independent serial channels. The card rack contains all the hardware circuitry to perform the data and graphics processing for the presentation of Radar Picture on the monitor. It receives and processes the synthetic and radar information and depending on operator selections through the MMI and presents the Radar picture on the monitor. The exhaust and fan trays provide the air cooling by blowing air through the card rack and forcing the hot air out through the exhaust.