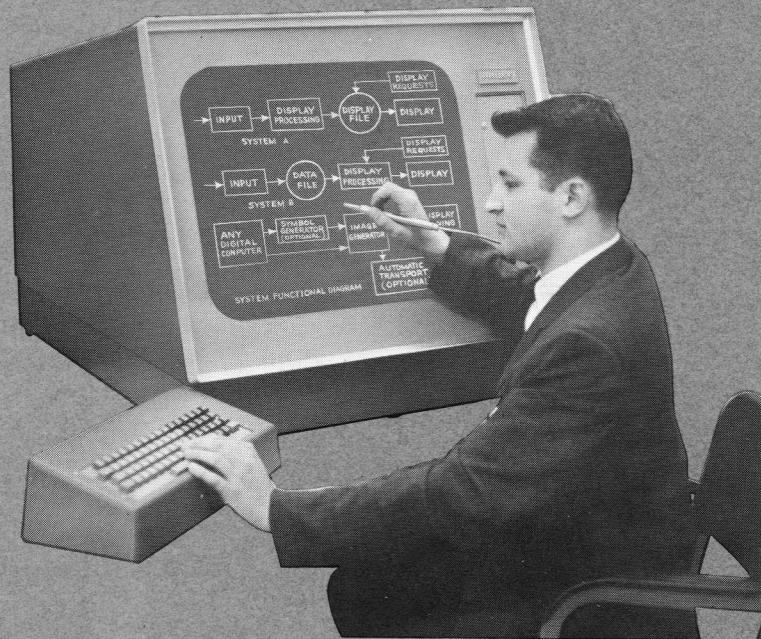
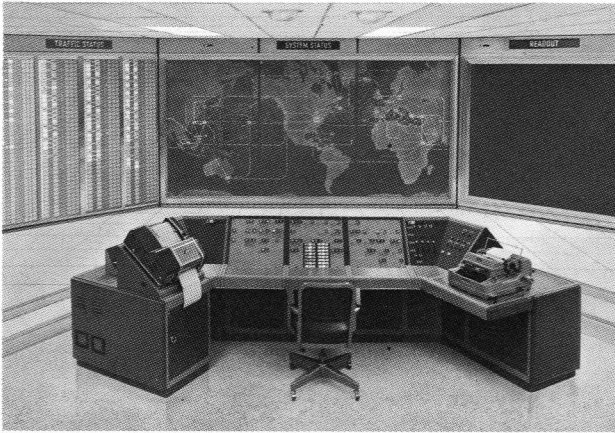


PHILCO VISUAL DISPLAYS



Communications and Electronics Division, Willow Grove, Pa.

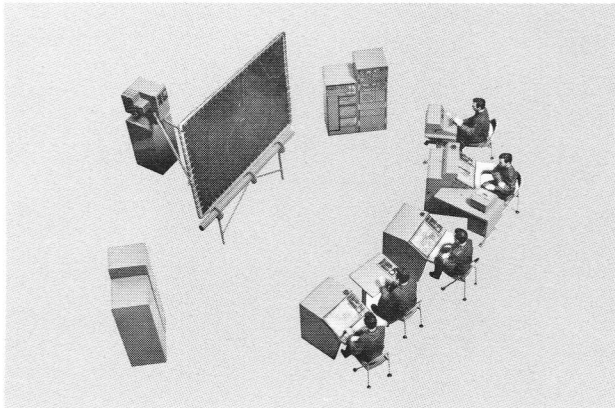
PHILCO
A SUBSIDIARY OF *Ford Motor Company*



Communications Control Center Display



TACDEN and GRAPHDEN Data Entry Units



Display Consoles and Group Projection System



Philco 212 Electronic Data Processing System Console

Philco Corporation has produced a wide variety of advanced-design display systems and related devices. These devices include several types of Cathode Ray Tube (CRT) display consoles for direct viewing or projection, and all associated equipment required for totally integrated small displays or large scale command and control systems.

DISPLAY CAPABILITIES

Display equipment in the Philco Information Systems line may be integrated in building block fashion to produce the specific characteristics tailored to individual users requirements. Philco Display Systems may include any of the following units as required.

Input Devices

- Input Keyboards and Input-Output Typewriters — available to provide up to 512 characters.
- Data and Graphic Entry Units — for assembly and construction of data and graphic display information entered via teletype, magnetic tape, or other digital input.
- Light Pens — for transmission of graphic data by an operator to the display system.

Processing Devices

- Character Generators — Produce up to 512 characters and symbols (in groups of 64) for displays at up to 200,000 characters per second.
- Vector Generators — Produce vector lines up to full screen length at up to 100,000 vectors per second.
- Format Generators — Produce programmed formats for data display presentation.
- Central Processors — Small, medium or large scale systems available for all general-purpose data processing requirements.
- Overlay Slide Generators — Prepare overlay slides for projection or direct viewing.

Storage Devices

- Magnetic Core Storage Units — A large variety of memory units with access time as fast as 600 nano-seconds per 48-bit word are available to meet all requirements. Core storage units are available in 7-bit, 8-bit, 28-bit, 32-bit, 56-bit, 64-bit, or 72-bit word size and from 4096 to 131,072-word capacities.
- High Speed Drum and Disc File Units — Capable of storing up to 665 million characters and transferring up to 2 million characters per second.
- Magnetic Tape Units — 240KC, 120KC, 90K, and 36KC Philco and IBM — compatible units available.

UAL DISPLAYS

Output and Display Devices

- Slide File — Stores up to 1000 generated slides with automatic three-second random access selection and positioning for scanning or projection.
- Cathode Ray Tubes (CRT) — A variety of high intensity tubes from 4 to 12" for projection plus 12"-24" for direct viewing.
- Display Consoles — Automatic and semi-automatic remote display consoles available with 4 color overlays superimposed on map backgrounds.
- Projected Display Panels — Available from 20 x 30 to 60 x 80 inches for direct or rear projection viewing.
- Light Matrix Display Units — Available in any size with 5184 discrete four-color elements per square foot for direct viewing.
- Microfilm Recording Equipment.
- Hard Copy Devices — High-speed printers, dry-process multiple copy recorders, X-Y plotters, paper tape and card punch devices are available.

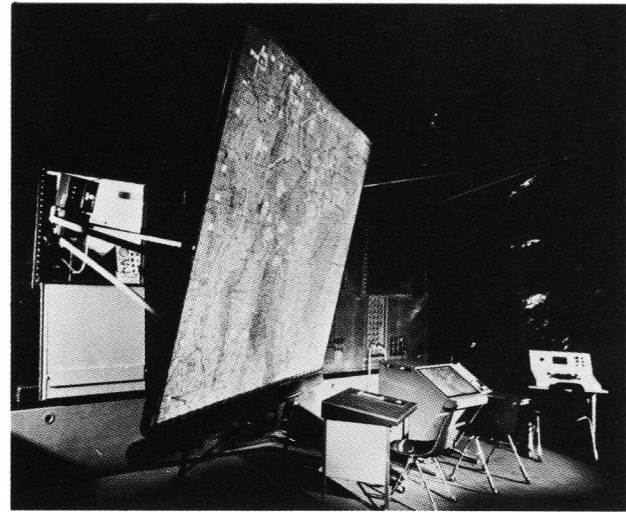
PHILCO DISPLAY SYSTEMS

The ARTOC Display System, AN/MSQ-19 Army Tactical Operations Central, is a prime example of the command and control display systems produced by Philco.

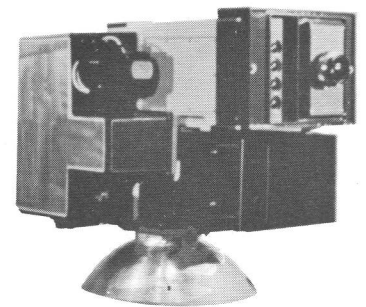
A part of the Army's high priority Command and Control Information System, the ARTOC Display System provides a field Army commander with a means for rapid and accurate assessment of the tactical and strategic situation over a vast area. This information is viewed on a large screen display panel and small individual display consoles. The system is transportable and uses highly advanced subsystems, including FIELDATA communications, data processing and display concepts.

The ARTOC system receives tactical information from a variety of sources, processes and organizes this data so that overlay slides may be created by ARTOC equipment. The overlays are projected on the various display consoles over maps and other basic projected slides under operator control.

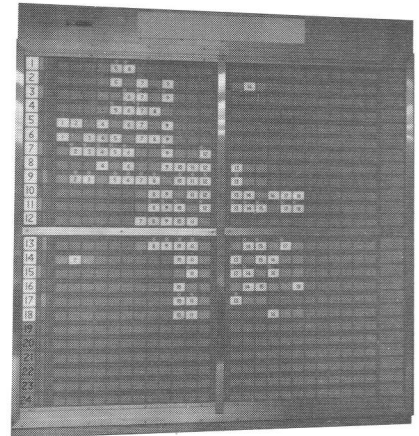
A screened message is transmitted from a TACDEN (Tactical Data Entry unit) and a GRAPDEN (Graphic Data Entry unit). The Central Processor prepares the information required by the Overlay Generator to create the overlay slides with tactical information and tabular charts for projection on a Large Panel Display or the Automatic and Manual Display Consoles. Information is displayed in full color and generated overlays in up to four different colors. Overlay slides are prepared in 15 seconds and delivered to the Slide File ready for viewing.



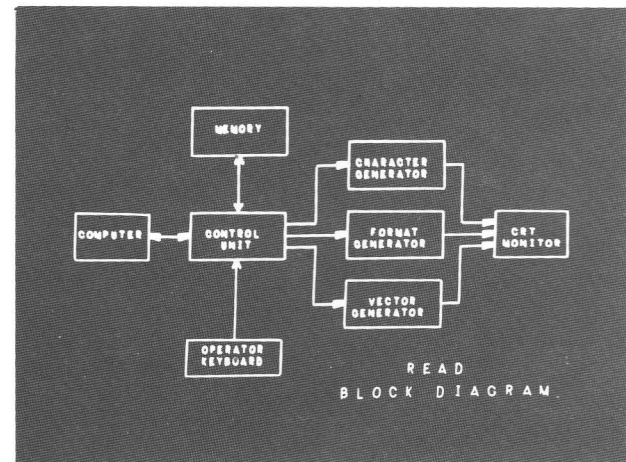
ARTOC Command and Control System



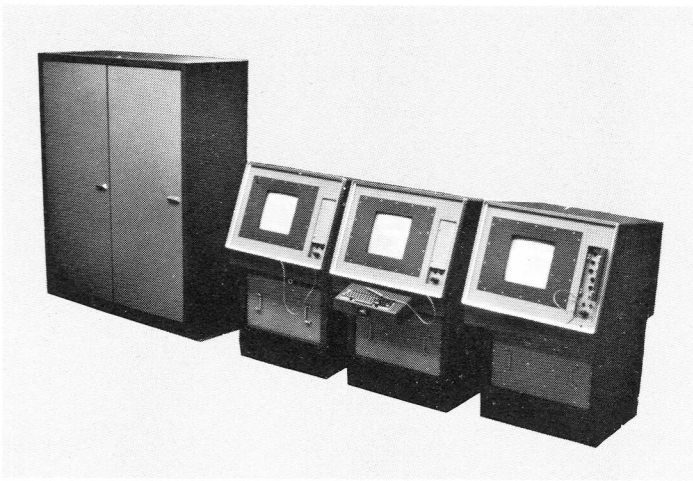
Large Panel Film Projector



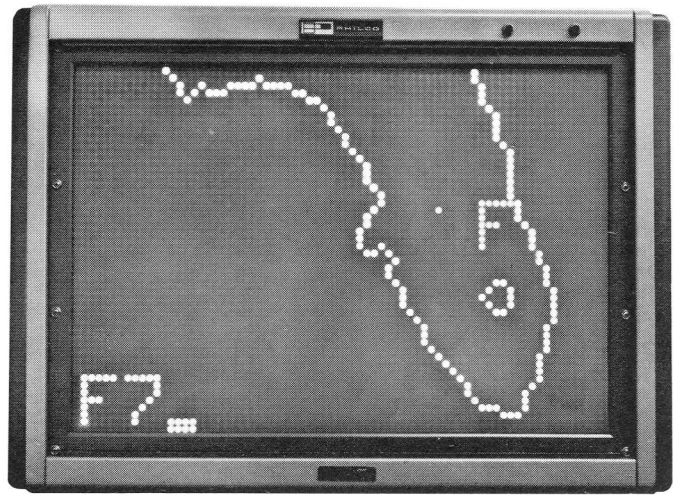
World-Wide Communications Status Panel



Actual Display from Projected CRT



READ Display Consoles with Keyboard and Light Pen



Philco Light Matrix

READ (Remote Electronic Access and Display) Systems currently in production are available with up to 15 remote consoles. READ systems may include light pens, keyboards and memory units with displays for direct viewing, projection, microfilming or hard copy preparation.

Philco Light Matrix Displays Systems are available for small or large screen viewing with up to four separate colors displayed per light position. Descriptive literature on these and other Philco Information Systems equipment are available on request.

SYSTEMS INTEGRATION

Philco Display Systems may be used with many devices in the Philco Information Systems line, including the Philco 1000 and 2000 Electronic Data Processing Systems and the Philco Message and Data Switching Systems. They may be integrated with any data processing or transmission system. Typical applications

include tactical command and control, weather displays, air and ground transportation, traffic control, dynamic production control, automated training systems, computer displays or wherever immediate dynamic visual displays are required.

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