

New York Common IFR Room (CIFRR) system block diagrams:

Fig. 2 (below) shows the two information paths to the display equipment: a direct video path that provides sensor data in the normal manner; and a digital path, via the computer for alphanumeric data.

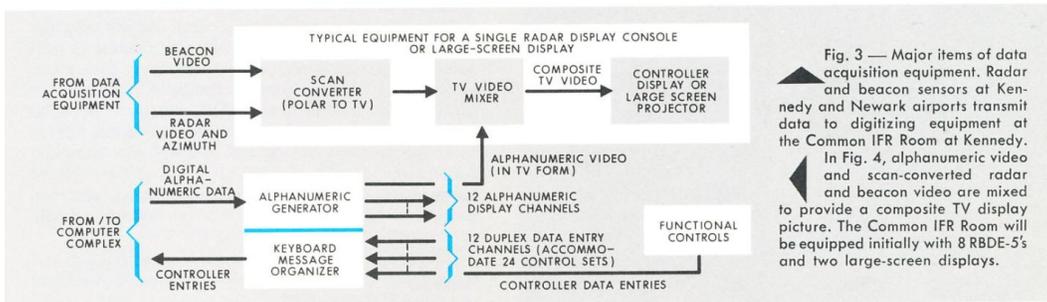
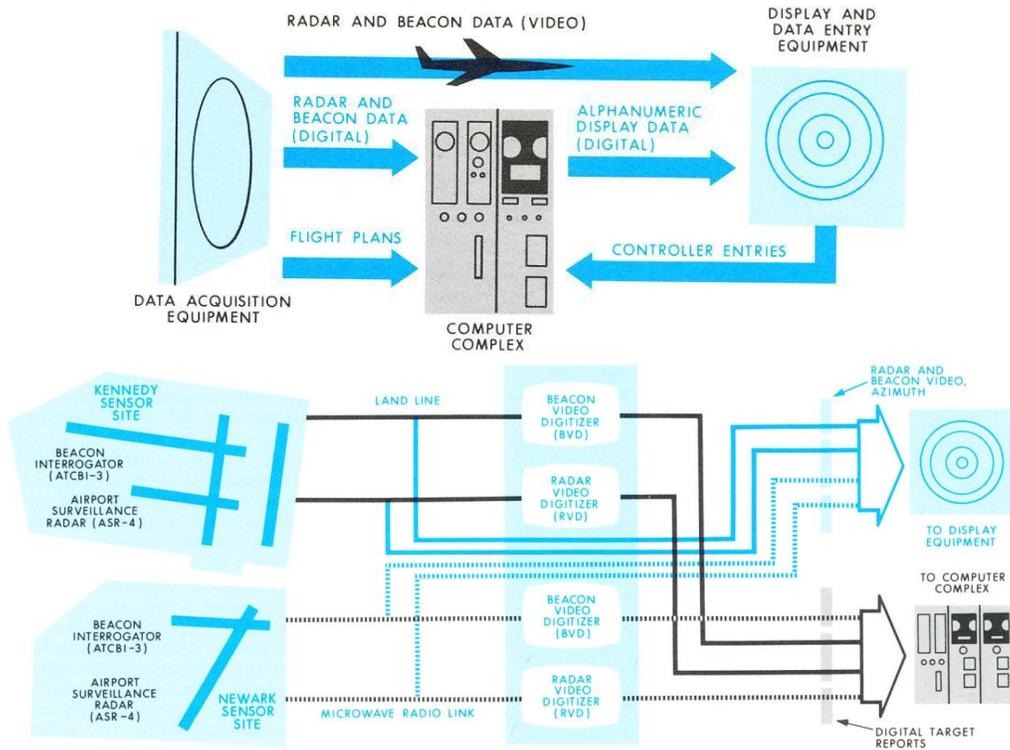


Fig. 3 — Major items of data acquisition equipment. Radar and beacon sensors at Kennedy and Newark airports transmit data to digitizing equipment at the Common IFR Room at Kennedy. In Fig. 4, alphanumeric video and scan-converted radar and beacon video are mixed to provide a composite TV display picture. The Common IFR Room will be equipped initially with 8 RBDE-5's and two large-screen displays.

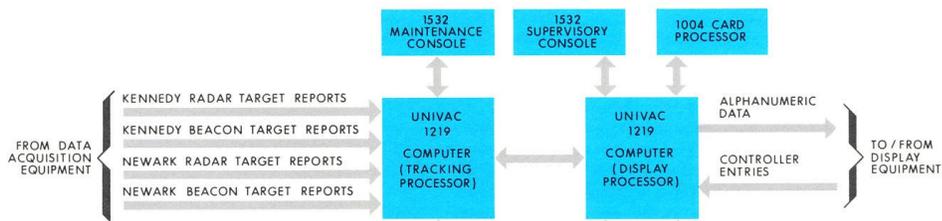
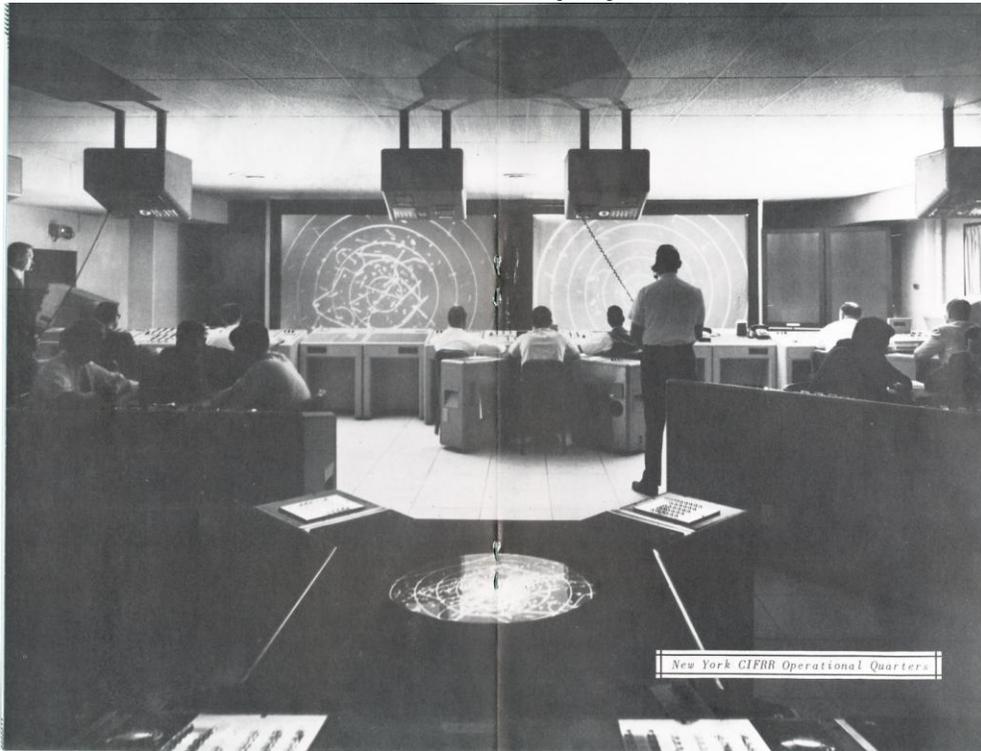


Fig. 5 — The tracking processor tracks aircraft by means of target reports from the data acquisition equipment. Alphanumeric flight data originating at the ARTCC (or introduced by the controllers) is supplied to display equipment by display processor. Switching equipment (not shown) permits reconfiguration for single-computer operation.

New York CIFRR Display Room:



New York CIFRR Computer Room:



The ARTS I system in Atlanta, the SPAN system in Indianapolis, and the NYCBAN system in New York used the UNIVAC 1218 computers. The ARTS IA system at the New York CIFFR used the UNIVAC 1219B computers (pictured right). Operational software ran in two 1219B computers; one provided Track Processing (TP) functionality and the second one provided Display Processing (DP) functionality. The executive program was a short, endless loop that called all the major program functions (e.g., Tracking).

The ARTS IA Display Consoles (shown below) were built by Texas Instruments.



The ARTS IA display consoles were driven by the Alpha Numeric Generator (pictured right) that was built by Hazeltine.



The ARTS IA Beacon Video Digitizer (pictured right) was built by AIL.

The ARTS IA Radar Video Digitizer (pictured below) was built by Burroughs.



The ARTS IA UNIVAC 1298 I/O Switch Rack (pictured right).

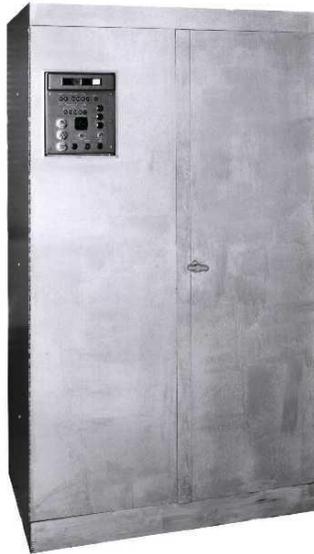
This rack held ten A/B switches for either input or output connections between peripherals and computers. The cable connectors were 90 pin wired per Design Specification 4772.



The ARTS IA UNIVAC 1532 I/O Console (pictured right) includes operator desk, Flexo-writer, paper tape reader and paper tape punch. This was an update from the original NTDS 1232 unit.



The ARTS IA 1262 Teletypewriter Adapter is shown below:



The ARTS IA UNIVAC 1540 Magnetic Tape Unit (pictured right).

- This was an update from the original NTDS 1240 and 1243 magnetic tape units. The 1540 controller could handle either two or four tape drives.



The ARTS IA system (pictured right) used the UNIVAC 1004 Line Printer, Card Reader and Card Punch for the generation of computer software listings, reading in of operational program card decks for assemblies and punching new cards.

