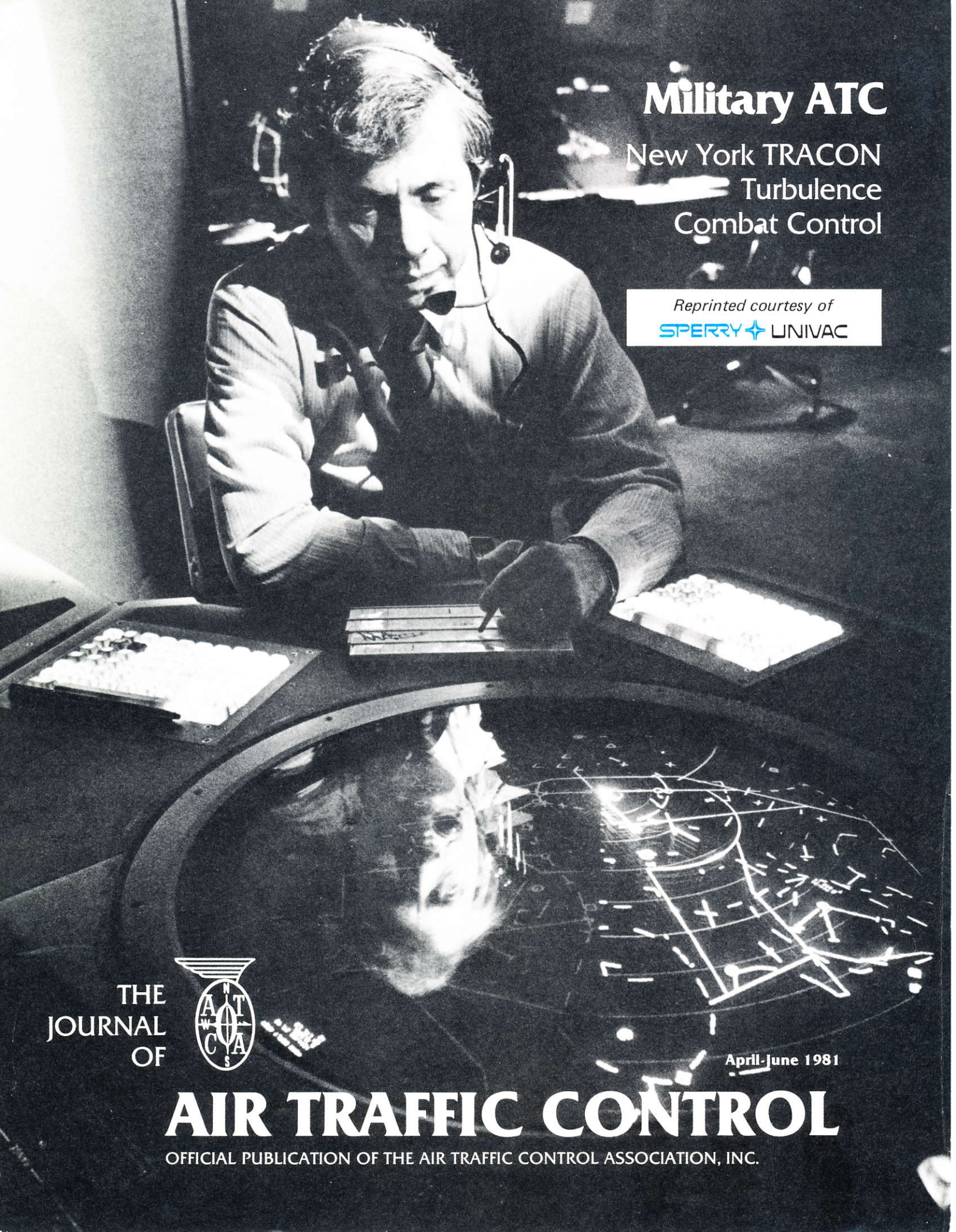

Military ATC

New York TRACON
Turbulence
Combat Control

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THE JOURNAL OF

April-June 1981

AIR TRAFFIC CONTROL

OFFICIAL PUBLICATION OF THE AIR TRAFFIC CONTROL ASSOCIATION, INC.

Sperry Univac and the State of the ARTS

Federal Aviation Administration air traffic controllers at the TRACON facility in Hempstead, Long Island, use an enhanced computer-aided ARTS IIIA system as they supervise aircraft operating in the New York City vicinity. The ARTS IIIA system has been designed and installed by Sperry Corporation's Sperry Univac division.

The opening of the New York TRACON (Terminal Radar Control Room) located in Hempstead, Long Island, marks a long and continuing relationship between the Federal Aviation Administration and Sperry Univac, supplier of the enhanced ARTS III (Automated Radar Terminal System) used at TRACON and at commercial airports and military air bases throughout the United States. The New York TRACON handles approaching and departing aircraft from the area's five airports—JFK, LaGuardia, Newark, MacArthur/Islip and Westchester County. The enhanced ARTS III at the TRACON tracks aircraft with and without transponders, and processes data from four radar and beacon systems in the New York City vicinity.

ARTS III uses sophisticated computer technology to process incoming signals and to produce a continuous alphanumeric display (letters and numbers), tagging each blip with aircraft identity, aircraft speed and aircraft altitude. Later enhancements to ARTS III have added Minimum Safe Altitude Warning, a visual and aural signal to the controller when an aircraft descends below a predetermined safe altitude, and Conflict Alert, which warns the controller if two aircraft are projected by the computer to approach each other too closely.

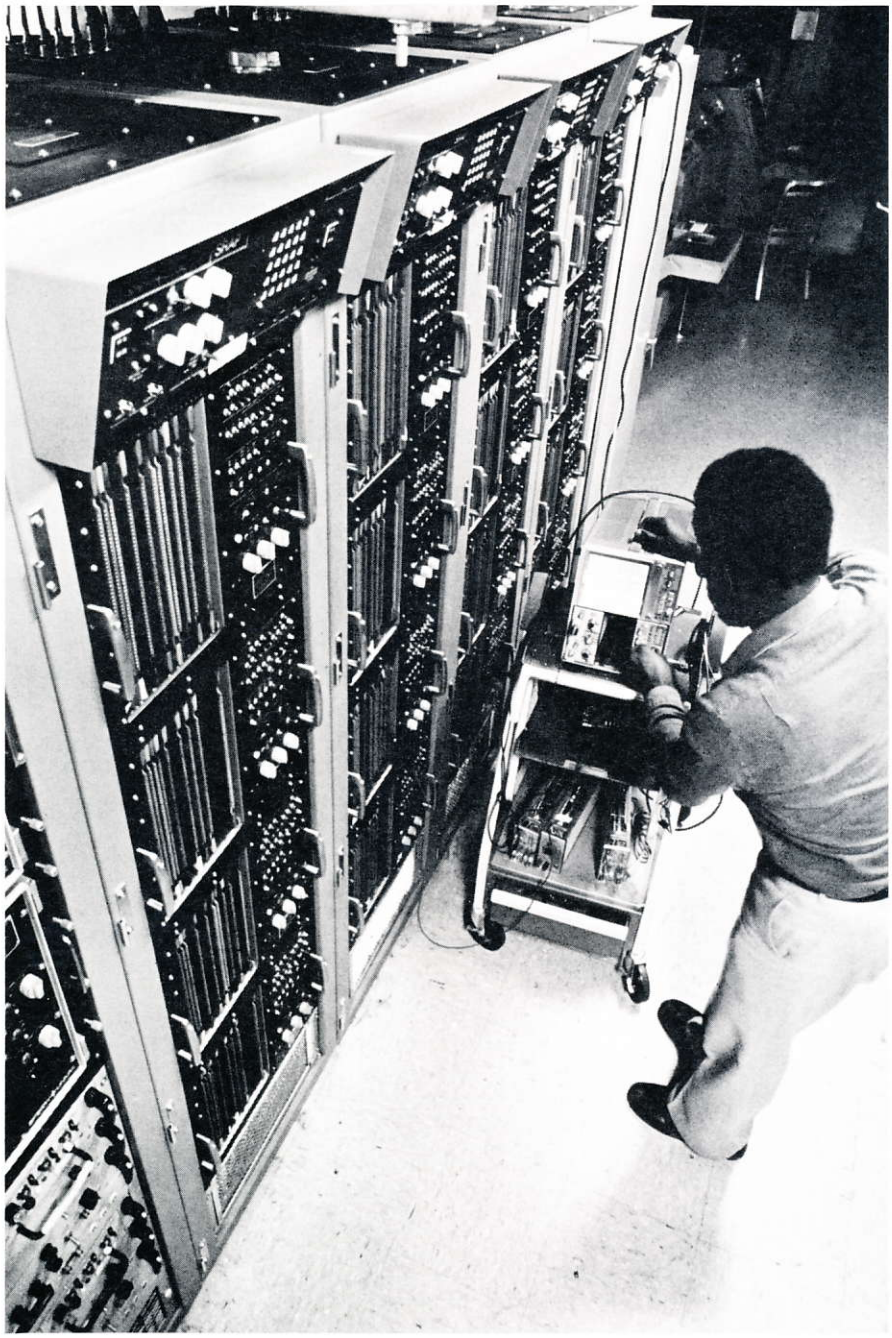
Recently the FAA awarded a $43 million contract to Sperry Univac to provide equipment to upgrade existing ARTS III to enhanced ARTS IIIA configurations at 32 high-traffic airports and to deliver additional equipment to 30 U.S. airports which previously had installed ARTS IIIA systems. This contract will bring to 62 the number of domestic commercial airports with enhanced air traffic control systems.

The computer-based ARTS III system was designed with modularity and expandability as key features to allow for later upgrading and enhancements. The first ARTS III contract was awarded to Sperry Univac by the FAA in February 1969 and the first systems were delivered to the FAA's Oklahoma City Academy and to Chicago's O'Hare Airport in December 1970, with operational readiness demonstrated in February 1971. The last ARTS III system developed under the original FAA contract became operational at Oakland International Airport in the spring of 1974. Under subsequent contracts, Sperry Univac began updating high-density airports with ARTS III to ARTS IIIA systems in 1976.

ARTS III is an outgrowth of ARTS I, developed by Sperry Univac for the FAA in 1963 and installed in the Atlanta, Georgia airport in 1966. ARTS IA, a modification for high-density airports was developed in 1965 and installed in 1968 at the New York Common Instrument Flight Rules Room, now superseded by TRACON. ARTS III-based systems are also used at foreign airports, including those at Tokyo and Osaka, Japan and Kimpo International Airport at Seoul, Korea. Sperry Univac also provides a smaller system, CARTS (Compact ARTS) for use at domestic and foreign airports with lower traffic densities, and an en-route traffic control system called EARTS, for commercial air traffic control centers at San Juan, P.R., Anchorage, Alaska and Honolulu, Hawaii as well as for use by the Air Force at Nellis Air Force Base near Las Vegas.

Sperry Univac, a long-time ATCA corporate member, has annual revenues of $2.2 billion, and is the second largest computer company in the world. Headquartered in Blue Bell, Pa., Sperry Univac produces and markets worldwide, the 1100 series of large-scale computers, System 80 for medium-scale users in industry, manufacturing and distribution, minicomputers, and specialized computers for the military as well as peripheral equipment such as printers, terminals and storage devices along with related software (programs) for these systems. Major markets for Sperry Univac include the world airline industry where Sperry Univac is a leader in flight reservation systems, federal, state and local governments, manufacturing and distribution, education, communications and energy.

Sperry Univac is a division of Sperry Corporation, a $4.8 billion (sales) multinational company headquartered in New York City. Other divisions of Sperry Corporation include Sperry New Holland, a maker of farm equipment, Sperry Division, a supplier of electronic systems, gyroscopes and high speed processors to the military, Sperry Vickers, a maker of fluid power equipment and Sperry Flight Systems, which markets airborne flight control, flight guidance and avionics systems to commercial and government markets.



A Technician uses an oscilloscope to perform routine maintenance checks on TRACON's ARTS IIIA Sensor Receiver and Processor unit. The SRAP, produced by Sperry Univac, converts incoming radar signals from analog to digital format prior to processing by the ARTS IIIA digital computer.

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