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Office of Aviation Affairs

BY N.A. LIEURANCE, ACTING DIRECTOR

The role of the Office of Aviation Affairs (OAA) will become an increasingly challenging one as the aviation industry continues to grow and new technological developments unfold. We are facing many of these changes at the present time.

The operational supersonic transport is not very far off. It will operate in a higher stratum of the atmosphere than present commercial aircraft and at greatly increased speeds. V/STOL (vertical/short take-off and landing) aircraft are being developed with a view toward a new mode in aviation operations. Automatic landing systems are being tested, and improved navigational aids are being developed and installed to permit airport operations with lower operating minimums. The general aviation community is growing rapidly. More pilots with a wide experience spectrum will be flying more sophisticated aircraft in a complex airspace. New airports are being planned and developed, and existing airports are being improved to meet aviation needs.

These developments will require improved services from ESSA, such as more detailed and improved aviation weather service, aeronautical charts for navigation, radiation warnings in the lower stratosphere, and better communications. It is the function of the Office of Aviation Affairs to deal with these and other aviation problems in terms of policy, requirements, service programs, and overall coordination.

Prior to the establishment of ESSA, there was an Office of Aviation Weather Affairs serving as a staff office to the Chief of the Weather Bureau. Now, as one of the staff offices to the Administrator, ESSA, the Office of Aviation Affairs provides a focal point for all matters concerning ESSA's aviation services. This includes not only operational, but also research and development matters. The Director of Aviation Affairs makes recommendations to the Administrator on ESSA's policies related to these services.

As Department Order 2-B states, "The Office of Aviation Affairs coordinates aviation user requirements, balancing them against available resources; establishes objectives and recommends policies for aviation services; serves as aviation services adviser to the Administrator and his senior line managers; and advises the Administrator, FAA, on ESSA aviation service programs." One of the primary functions of the Office is to evaluate and determine service requirements. Statements of requirements for ESSA services in support of aviation come, for the most part, from the Federal Aviation Agency. However, there are other sources, such as the air carriers and general aviation community. Another important function is to review and coordinate program plans for meeting these requirements.

The OAA develops policy guidelines for ESSA's aviation services and reviews for the Administrator all matters related to these services provided by the several components of ESSA. The Director serves as the senior adviser to the ESSA "bureau" Directors regarding aviation affairs.

In addition, the Office provides top-level aeronautical liaison with and representation to other departments of Government, such as the Federal Aviation Agency, the National Aeronautics and Space Administration, the Department of Defense, and the Civil Aeronautics Board, and to international bodies such as the International Civil Aviation Organization and the World Meteorological Organization. There also is liaison at the national level with important segments of the aviation industry, including manufacturers, operators, and the general aviation community. This provides an important means of becoming informed of new requirements and assessing the effectiveness of ESSA's aviation services to the industry.

The Director of Aviation Affairs wears a "dual hat", in that he serves as adviser to the Administrator of the Federal Aviation Agency on aviation programs of ESSA. In addition to his office at ESSA headquarters, the Director has an office at FAA headquarters so that he can more effectively carry out this advisory function. He has a small staff at FAA headquarters as well as at ESSA headquarters. An Aviation Weather Representative from the OAA staff works fulltime at the FAA to provide a continuing link with FAA service directors and their staffs on aviation weather service matters. Similarly, an Aeronautical Charting Representative of OAA is at FAA fulltime to provide a continuing link with FAA staff in the aeronautical charting area. This advisory and liaison function to the FAA will become increasingly important as ESSA program support to the expanding aviation industry develops.

These are exciting times for those of us involved in providing environmental services to the aviation industry. We are looking forward to mutual cooperation with both the operating and R&D arms of ESSA in this important work.



NEWTON A. LIEURANCE

Newton A. Lieurance, Acting Director of the Office of Aviation Affairs, has worked in this field for almost 30 years, and has wide industry, Government, and military experience.

After a year as Field Engineer for the Resettlement Administration, Mr. Lieurance began his aviation career with Trans-World Airlines in 1936, serving as meteorologist and Flight Superintendant until 1947 -- with a four-year interruption for Naval duty during World War II.

Mr. Lieurance joined the Weather Bureau in 1947 as Area Training Officer at Kansas City, Missouri, and later advanced to project and staff assistant to the Chief of the Weather Bureau for aviation, marine, and communications services. Recalled for active duty during the Korean War, Mr. Lieurance served as Assistant Head of Naval Aerology until 1953, when, changing services, he spent a year as Chief Meteorologist for the Army Signal Corps, Fort Monmouth, New Jersey.

Mr. Lieurance returned to the Weather Bureau in 1954 as Executive Assistant to the Deputy Chief. He was appointed Director of the Weather Bureau's Aviation Weather Services in 1962, and Acting Director of the Office of Aviation Weather Affairs in 1964. Late that same year, he was assigned collateral duty as a staff advisor to the Administrator of the Federal Aviation Administration, and has since maintained a second office at that agency. Mr. Lieurance has served with the FAA before; from 1958 to 1959 he was Chief of the Weather Division in FAA's Bureau of Research and Development and Meteorological Advisor to the Administrator.

A Captain in the Naval Reserves (Ret.), Mr. Lieurance holds a B.S. degree in Civil Engineering from Kansas University, and is also a graduate meteorologist, having studied at the U. S. Naval Academy Post Graduate School. In 1962 he was awarded AVIATION WEEK's Annual Safety Award "for outstanding contribution to aviation safety."

Mr. Lieurance has represented the United States at a number of international conferences involving the North Atlantic Treaty Organization, the

International Civil Aviation Organization, and the World Meteorological Organization. He recently served as official scientific observer on a round-the-world date-gathering flight that traveled over both the North and South Poles.

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ITSA SCIENTIST AT SOVIET ANTARCTIC STATION. John H. Taylor, physicist for the Institute for Telecommunication Sciences and Aeronomy (ITSA), Boulder, has left for a year's tour of duty at the Soviet Antarctic station Vostok, where he will operate all U. S. equipment at the station.

He received his Bachelor of Arts degree in physics from Hamilton College, N. Y., and his B.S. and M.S. in electrical engineering from Massachusetts Institute of Technology.

Vostok is located at the geomagnetic south pole which makes it of special interest for research concerning the earth's magnetic field and magnetic lines of force. U. S. scientists are permitted to conduct research there under an agreement which allows the exchange of scientists at the Antarctic stations.

DEPUTY ASSISTANT SECRETARY FOR ADMINISTRATION APPOINTED.

Lawrence E. Imhoff has been appointed Deputy Assistant Secretary for Administration, Department of Commerce. He has served as the Director of the Office of Budget and Finance since 1962, and as Deputy Director of that office from 1960 to 1962.

ESSA PREDICTS SOLAR ACTIVITY FOR GEMINI. Daily predictions of solar activity were provided during the Gemini 7-6 flights by the Space Disturbances Forecast Center (ITSA), Boulder, Colorado, to the Manned Spaceflight Center in Houston. The "Trial Space Disturbance Forecasts" prepared by the Center are intended to provide useful information to the NASA manned spaceflight program and to test space disturbance forecasting techniques being developed by ITSA. These predictions will become even more important as manned spacecraft leave the protection of the earth's magnetic field.

VISITING SCIENTIST PROGRAM PROPOSED. The Civil Service Commission has submitted to Congress proposed legislation to establish a Government-wide Visiting Scientist and Scholar Program. This legislation would enable the Government to obtain the temporary services of a small number (not more than 300 at any one time) of distinguished scientists, engineers, and scholars needed for Federal research and development activities. Appointments would be limited to a maximum of two years. Also, appointees would not be granted tenure.

NEW MIC AT DENVER. Marshall F. Grace, currently chief of a forecast section in the Analysis and Forecast Division, National Meteorological Center, has been selected as Meteorologist-in-Charge at the Weather Bureau Airport Station, Denver, Colorado. He replaces Albert W. Cook, who has retired after more than 42 years of Weather Bureau service. Mr. Grace has a

B.S. degree in mathematics and physics from North Texas University and has done graduate work at California Institute of Technology, George Washington University, and the University of Chicago. He joined the Weather Bureau in 1942 and served on research projects at U.C.L.A. and Cal. Tech. In subsequent assignments, he was an aviation forecaster at Salt Lake City and at the Army Air Force Weather Station at Hickam Field (Honolulu). At the end of World War II, he helped reestablish the Weather Bureau forecast office at Honolulu, serving there until 1955, when he was transferred to the National Weather Analysis Center at Suitland, Md.

WATER RESEARCH LABORATORY DEDICATED. A new 1.2 million dollar Utah Water Research Laboratory was dedicated at Utah State University (Logan, Utah) early in December. ESSA participants from the Weather Bureau Western Region were Hazen H. Bedke, Director; Eugene L. Peck and Roland L. Raetz, hydrologists; and Marvin D. Magnusen and E. Arlo Richardson, climatologists.

DATA CENTER PLANS DISCUSSED. A meeting of the Environmental Data Service was held early in December at Asheville, N. C., to discuss current and future data center activities and the co-location of the geodetic and seismic data centers in the near future with the National Weather Records Center (NWRC). The groundwork was also laid for long-range planning of data centers in ESSA. Among those present were Dr. Helmut E. Landsberg and Julius Bosen, EDS, and Roy O. Williamson, C&GS, Washington; Dr. Alan H. Shapley and Miss J. Virginia Lincoln, ITSA, Boulder; Mrs. Pat Smith of the Ionosphere, Airglow and Solar Data Center, Boulder; and Thomas A. Modgling of the Seismic Data Center. NWRC was represented by William H. Haggard, William McMurray, Gilbert E. Stegall, and Grady McKay.

NEW MIC FOR AKRON. Terry A. Ritter, a meteorologist at the Weather Bureau Airport Station (WBAS), Hartford, Conn., has been chosen as meteorologist in charge at WBAS, Akron, Ohio. He replaces Raymond C. Robinson, who is retiring after 38 years of service with the Weather Bureau. Mr. Ritter obtained his B.S. degree in meteorology from Pennsylvania State University in 1959. That same year he entered the Weather Bureau with assignment to WBAS, LaGuardia Airport, New York.

WB CENTRAL REGION HAS NEW COMPUTER. A CDC-3100 computer has been installed at the Weather Bureau's Central Regional Headquarters in Kansas City. The computer, which will be used in severe local storm and river forecasting, will replace the IBM-1620 currently in use at the Kansas City office. The changeover should be complete by December 31. Plans also are being made to program the new CDC 3100 for administrative and developmental work at a later date.

NEW FEATURE ADDED TO AERONAUTICAL CHARTS. ESSA Coast and Geodetic Survey aeronautical charts soon will show the identification numbers of lookout towers in the National Forests in California. Numerical identification of the structures was initiated by the U. S. Forest Service to provide location references for the firefighting activities of that agency. The numbering on C&GS charts also will benefit the flying public by providing positive references for visual flights in rugged country.

SATELLITE CENTER GIVES APT TRAINING. In a class recently conducted by the National Environmental Satellite Center, weathermen from nine foreign nations were instructed in locations and interpretation of cloud photographs received directly from weather satellites. ESSA's TIROS Operational Satellite System, which is scheduled to begin full operation early in 1966, will include weather satellites equipped with Automatic Picture Transmission (APT) camera systems. The APT system takes cloud photographs and sends them immediately to simple receiving stations on the ground for use in weather analysis and forecasting. About 30 foreign nations expect to have APT receiving stations in operation by April 1966. Among the 60 students attending the five-day training session (December 6 - 10) were 11 from Argentina, Canada, Chile, England, Germany, Israel, Japan, Pakistan, and Switzerland.

"SUMMER" PROGRAMS UNDERWAY IN ANTARCTICA. Seventeen ESSA employees are currently assigned in Antarctica. At Byrd Station are Brent D. Scudder, WB; Gary R. Davey, WB; Paul R. Carlson, WB; Tony L. Cox, C&GS; Samuel D. Gerrish, ITSA; William L. Galkin, WB; Norbert W. Novocin, WB; and Stuart S. Jeffrey, ITSA. The South Pole Station party includes Ronald R. Stephen, WB; Charlie D. Mabe, WB; Gerry L. Hollingsworth, WB; Edward J. Landry, WB; Howard A. Preston, WB; Robert R. Mallis, C&GS; and Richard F. Przywitowski, ITSA. Martin Spanholz, ITSA, and Robert H. Geissel, C&GS, are at the new Polar Plateau Station which may prove to be the world's coldest occupied site. The tiny outpost sits atop a 13,000-foot ridge which is about 1500 feet higher and slightly closer to the Pole than the Soviet Union's Vostok station which presently holds the world's record low temperature -- 127 degrees below zero Fahrenheit. Temperatures at Plateau may approach 130 degrees below zero.

NAUTICAL CHART LISTS READIED FOR MARINERS. On January 2, the Coast and Geodetic Survey will begin free distribution to mariners of catalogs listing all available nautical charts of the United States' Atlantic and gulf coastal waters. Similar catalogs covering the Pacific and Alaskan coasts will be issued in midsummer of 1966. The catalog for the Atlantic and gulf coasts will include Puerto Rico and the Virgin Islands. The Pacific coast catalog will include Hawaii, Guam, and the Samoan Islands, and that for the Alaskan coast will include the Aleutian Islands.

REGIONAL ADMINISTRATOR RETIRING. Hugh D. Spangler, Regional Administrator, Weather Bureau Western Region, will retire December 30 after more than 40 years of Federal service. Before his appointment as Regional Administrator last year, Mr. Spangler had been Regional Administrative Officer of the Region since 1952. He joined the Weather Bureau in Bismarck, North Dakota, in 1926, and served at Lander, Cheyenne, Billings, Boise, Spokane, and Seattle, before going to Salt Lake City. He had a special assignment for the Reconstruction Finance Corporation in 1942, when he worked as chief meteorologist for a rubber development corporation in the Amazon Valley.

BUOYS TESTED FOR OCEAN PROGRAMS. Future oceanographic programs of the Coast and Geodetic Survey will require an improved oceanographic buoy, one that can carry heavier loads in strong currents and deeper ocean areas. C&GS is currently testing two new buoys, one steel and the other fiberglass, in Chesapeake Bay. The tests involve towing the buoys at varying speeds to simulate ocean currents, while taking motion pictures to be used in studying the stability of the buoys under various load conditons. Both buoys will be moored in the Bay during the winter. A radio telemetering link has been established which will transmit data gathered from oceanographic sensors suspended beneath one of the buoys to a receiver at the Washington Science Center.

ESSA OFFICIALS AT MANILA CONFERENCE. Dr. Robert H. Simpson, Associate Director of the Weather Bureau (Meteorological Operations) and Dr. Joanne Simpson, Director of Project Stormfury, served as consultants to the United Nations Economic Commission on Affairs of the Far East (ECAFE) conference on typhoon hazards warning prediction, which met in Manila from December 8 to 13. Dr. R. Cecil Gentry, Director of the National Hurricane Research Laboratory, attended the conference as a representative of the World Meteorological Organization.

LASER TECHNIQUE TO BE USED IN ATMOSPHERIC STUDY. Under an ESSA contract, the Stanford Research Institute will conduct a series of lidar (laser) observations of radar angels in conjunction with radar observations taken by the National Severe Storms Laboratory at Norman, Oklahoma. Data gathered will be used by the Institute to explore the nature of any unexplained echoes which may be encountered. A second series of observations will be made to measure the extent of cumulus cloud growth at specified levels.

ADMIRAL KARO ATTENDS NEW ORLEANS MEETING. Vice Admiral H. Arnold Karo, ESSA Deputy Administrator, attended the meeting of the Lower Mississippi Valley Flood Control Association, held in New Orleans from December 1 to 3. During his stay in New Orleans, he visited local Weather Bureau and Coast and Geodetic Survey offices.

NASA FACILITY AIDS WEATHER BUREAU. The Mississippi Test Facility at Picayune, operated by the National Aeronautics and Space Administration, is cooperating with the ESSA Weather Bureau by taking radiosonde observations until operations at the Bureau's Boothville, La., station (destroyed by hurricane Betsy) can be resumed. Upper air and surface observations are scheduled to be re-established at Boothville soon after January 1, 1966.

MIC'S SELECTED FOR THREE WEATHER STATIONS. Three new Meteorologists in Charge have recently been appointed for Weather Bureau Airport Stations in the Southern Region. They are: Cecil M. Palmer, formerly of WBAS Memphis, Tenn., now MIC at WBAS Baton Rouge, La.; Donald T. Rowland, formerly of WBAS Port Arthur, Tex.,

now MIC at WBAS Alexandria, La.; and Charles H. Carpenter, formerly of Brownsville, Tex., now MIC at WBAS Macon, Ga.

WAVE CONDITIONS PREDICTED. Late in November the ESSA Weather Bureau began issuing daily warnings and forecasts of near-shore wave conditions, including surf and breakers, for the section of the California coast from La Jolla to the Mexican border. These forecasts, primarily for the support of fishermen in the area, are issued once a day by the San Diego and Los Angeles Weather Bureau Airport Stations.

NEW COMMANDING OFFICER NAMED FOR PATHFINDER. Commander Gerald L. Short has been appointed Commanding Officer of the ESSA ocean survey ship Pathfinder, which is based at Seattle, Washington. Since March 1964, Comdr. Short has been officer-in-charge of the Coast and Geodetic Survey's field office in Anchorage, Alaska. He was appointed in the commissioned corps in 1943 and has served aboard 14 of the agency's ships, as chief of various geodetic field parties in the United States, as Liason Officer at the Norfolk Naval Amphibious Base, and as head of the Boston, Mass. office.

60-YEAR OBSERVER COMMENDED BY PRESIDENT. President Johnson has expressed his personal gratitude to the Reverend Plummer F. Jones of New Canton, Virginia, for his unselfish dedication during 60 years of voluntary service as a cooperative observer for the Weather Bureau. It was the third time this year a cooperative observer was so cited.

RADAR HYDROLOGY RESEARCH CONFERENCE. A conference on radar hydrology research, held early in December at the National Severe Storms Laboratory (NSSL) in Norman, Oklahoma, was attended by representatives of the Weather Bureau Central Office, Southern Region, and the Tulsa River Forecast Center (RFC). Plans were completed for facsimile transmission of radar data from the Fort Worth Weather Bureau Airport Station (WBAS) and NSSL to the Fort Worth RFC, where it will be computer processed. The results then will be returned by teletypewriter. The program will be evaluated after the spring season.

REQUISITION FORM CHANGE. Use of the new Department of Commerce Request Order, Form CD-45, should begin immediately upon receipt of the new forms and no later than January 3, 1966. The CD-45 should be used for all purchase requests that will be forwarded to the Department. Requisitions on C&GS Form 97 and WB Form 400-6 will not be accepted on or after the designated date.

REGIONAL DIRECTOR TOURS CAROLINA STATIONS. Karl R. Johannessen, Director, Weather Bureau Eastern Region, made an extended tour of stations in North and South Carolina between December 8 and December 17, visiting Asheville, Charleston, Charlotte, Clemson, Columbia, Greensboro, Greenville, Raleigh, and Wilmington.

National Oceanic and Atmospheric Administration

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