Scientific Program and Highlights of 1955 Meeting in Washington

To begin its second quarter of a century, the Aero Medical Association will present an outstanding scientific and social program at the twenty-sixth annual meeting at the Statler Hotel in Washington, D. C., March 21-23, 1955, under the presidency of Brigadier General Otis O. Benson, Jr., USAF (MC).

The Honorable Stuart Symington, United States Senator from Missouri and the first Secretary of the Air Force, will be the guest of honor and principal speaker at the colorful banquet on the evening of March 23.

Dr. John F. Fulton, Sterling Professor of the History of Medicine at Yale University School of Medicine, will deliver the first Louis H. Bauer Lecture. His presentation, “Louis H. Bauer and the Rise of Aviation Medicine,” will be given on the morning of March 21.

The traditional Fellows’ Dinner will be held on the evening of March 21 at the Officers’ Club of the Naval Gun Factory. The annual business meeting luncheon of the Association is scheduled for March 22 at the Statler Hotel. The Lederle Laboratories will be host this year to members and their guests at the cocktail hour preceding the Association’s annual banquet, the final event of the meeting. The recipients of the Lyster, Longacre and Tuttle Awards, and the newly elected fellows, will be announced on that evening. The U. S. Air Force Band will present a program of music and entertainment.

WIVES' WING PROGRAM

The fourth annual meeting of the Wives’ Wing of the Association, under the presidency of Mrs. W. P. Dana includes a gala program of social events beginning with a welcoming tea and fashion show at the Statler Hotel on the afternoon of March 21. Mrs. Otis O. Benson, Jr., is honorary president of the Wing and Mrs. Langdon
Scientific Program

C. Newman is general chairman of the program.

On March 22, the ladies will visit the new National Institutes of Health in Bethesda, Maryland, followed by a luncheon and business meeting in the South American Room of the Statler Hotel. A tour of some of the most interesting foreign embassies in Washington has been arranged for March 23.

The chairmen of the various committees for this year’s meeting include: Mrs. Joseph A. Baird, hostess; Mrs. Theodore C. Bedwell, Jr., luncheon; Mrs. Sheldon S. Brownton, tea; Mrs. George B. Green, embassy tour; Mrs. Ludwig G. Lederer, registration; and Mrs. Verne C. Lyon, Institutes tour. Dues of two dollars for the present calendar year are now payable to the Secretary-Treasurer, Mrs. Norman L. Barr, Box 5589, Washington 16, D. C.

All exhibit space allocated

Extensive scientific exhibits, displaying the most recent developments in aviation medicine, will be presented by the U. S. Navy, U. S. Air Force, the Civil Aeronautics Administration and the Royal Canadian Air Force. All available space for technical exhibits had been allocated as this number of The Journal went to press, indicating the widespread interest of the aeronautical, pharmaceutical and medical supply industry in the Association’s 1955 meeting.

The following scientific program was arranged by a committee under the chairmanship of Captain Clifford P. Phoebus (MC) USN:

MONDAY, MARCH 21

Opening Ceremony—9 a.m.

The National Anthem and Presentation of Colors
United States Navy Band

Invocation
Major General Charles I. Carpenter, USAF, Chief of Air Force Chaplains

Welcome
Brigadier General Otis O. Benson, Jr., USAF (MC), President of the Aero Medical Association

The Louis H. Bauer Lecture

Louis H. Bauer and the Rise of Aviation Medicine
John F. Fulton, M.D., Yale University

Scientific Program

The Changing Complex of Aviation Medicine
T. C. MacDonald, Air Commodore, Royal Air Force, Director of Hygiene and Research, Air Ministry, London

The Medical Aspects of Army Aviation
SCIENTIFIC PROGRAM

THE MEDICAL PROBLEMS OF AIRLINE FLIGHT PERSONNEL
John J. Welsh, M.D., American Airlines, Flushing, New York

THE HUMAN FACTORS IN LONG RANGE FLIGHT
Charles A. Dempsey, B.S., R. R. Burch, Capt., USAF (MC), D. Chiles, 1st Lieut., USAF (MSC), D. E. Warren, 1st Lieut., USAF (MSC), and N. E. Schmitt, Lieut., USAF (MSC), U.S. Air Force Aero Medical Laboratory, Wright-Patterson AFB, Ohio

Afternoon Program—2 p.m.

Session on Space Medicine

INTRODUCTION
A. P. Gagge, Col., USAF (MSC), Chairman

DEMONSTRATION OF COSMIC RAYS IN HUMAN TISSUE (SKIN)
Dr. J. Eugster, Professor of Geographical Medicine, University of Zurich, Switzerland

PHYSIOLOGICAL AND RADIOBIOLOGICAL ASPECTS OF THE 1954 AEROMEDICAL FIELD LABORATORY BALLOON FLIGHTS
David G. Simons, Major, USAF (MC); and C. H. Steinmetz, 1st Lieut., USAF (MSC), U.S. Air Force Aeromedical Field Laboratory, Holloman AFB, New Mexico

THE BIOLOGICAL SIGNIFICANCE OF THE NATURAL BACKGROUND OF IONIZING RADIATION AT SEA LEVEL AND AT EXTREME ALTITUDE
Hermann J. Schaefer, Ph.D., U.S. Naval School of Aviation Medicine, Pensacola, Florida

COSMIC RAY EFFECTS ON MATTER AT HIGH ALTITUDES
S. Fred Singer, Ph.D., Department of Physics, University of Maryland, College Park, Maryland

FLIGHT AT THE UPPER BORDER OF THE ATMOSPHERE
Walter R. Dornberger, Ph.D., Bell Aircraft Corp., Buffalo, New York

HUMAN TOLERANCE OF MULTI-STAGE ROCKET ACCELERATION CURVES
H. Preston-Thomas, Ph.D.; J. Miller, M.D.; and J. Henry, M.D., Canadian National Research Council, Ottawa, Canada

THE BOILING OF BLOOD AND BODY FLUIDS AT EXTREMELY HIGH ALTITUDES
Fred A. Hitchcock, Ph.D., Professor of Physiology, Ohio State University, Columbus, Ohio

THE EXPERIMENTAL SEALED CABIN OF THE U.S. AIR FORCE SCHOOL OF AVIATION MEDICINE
H. Strughold, M.D., Chief, Department of Space Medicine, U.S. Air Force School of Aviation Medicine, Randolph AFB, Texas

TUESDAY, MARCH 22

Morning Session—8:30 a.m.

A TRIBOLUMINESCENT MICRO-ACCELEROMETER
W. R. Franks, M.D., Banting Institute, University of Toronto, Canada

THE DESIGN AND EVALUATION OF AVIATION PROTECTIVE HELMETS

ESCAPE FROM VERTICAL TAKE-OFF TYPE AIRCRAFT
Roland A. Bosee, Comdr. (MSC) USN, and W. C. Buhler, B.S., U.S. Naval Parachute Unit, El Centro, California

February, 1955
SCIENTIFIC PROGRAM

ESCAPE BY DOWNWARD EJECTION AT HIGH SPEED AND HIGH ALTITUDE
Ira M. Barash, 1st Lieut., USAF (MSC); Edward G. Sperry, Capt., USAF, and Henry P. Nielsen, 1st Lieut., USAF, U. S. Air Force Aero Medical Laboratory, Wright-Patterson AFB, Ohio

EFFECTS OF MECHANICAL FORCE ON LIVING TISSUES
I. EXPOSURE TO ABRUPT ACCELERATION
   John P. Stapp, Lieut. Col., USAF (MC), Chief, Aeromedical Field Laboratory, Holloman AFB, New Mexico

II. EXPOSURE TO ABRUPT WINDBLAST
   The Application of Epidemiological Principles to a Study of Aircraft Accidents
   Ross A. McFarland, Ph.D., Harvard School of Public Health, Boston, Massachusetts

AVIATION CRASH INJURY RESEARCH
   A. Howard Hasbrook, Director, Aviation Crash Injury Research, Cornell-Guggenheim Aviation Safety Center, New York, New York

AIRCRAFT ACCIDENTS WITH HAPPY LANDINGS
   Richard B. Phillips, Capt. (MC) USN, Naval Air Station, Glenview, Illinois, and Charles C. Dugan, Major, USAF (MC), Barksdale AFB, Louisiana

Afternoon Session—2 p.m.

FURTHER EVALUATION OF "FEAR OF FLYING SYNDROME"
   Lucio E. Gatto, Col., USAF (MC), Sampson AFB, New York

OTOLOGICAL PROBLEMS MET IN AVIATORS
   Edgar E. Poos, M.D., Detroit, Michigan

THE PROBLEM OF HIGH INTENSITY NOISE AT A JET AIR BASE AND SOME SUGGESTED SOLUTIONS
   Kenneth S. Scott, Comdr. (MC) USN, Naval Air Test Center, Patuxent River, Maryland

BRIGHTNESS CONTRAST AND TARGET IDENTIFICATION THRESHOLDS ON THE RADAR PPI
   Siegfried J. Gerathewohl, Ph.D., U. S. Air Force School of Aviation Medicine, Randolph AFB, Texas

PHYSICAL EVALUATION OF PERSONNEL EXPOSED TO MICROWAVE EMANATIONS
   Charles J. Barron, M.D.; Andrew A. Love, M.D., and Albert A. Baraff, M.D., California Division of Lockheed Aircraft Corporation, Burbank, California

CABIN AIR CONTAMINATION PROBLEMS IN JET AIRCRAFT
   George Kitzes, Ph.D., U. S. Air Force Aero Medical Laboratory, Wright-Patterson AFB, Ohio

WEDNESDAY, MARCH 23

Morning Session—8:30 a.m.

FATAL DECOMPRESSION SICKNESS IN FLIGHT
   Webb Haymaker, M.D., and Vincent M. Downey, Lieut. Col., USAF (MC), U. S. Air Force School of Aviation Medicine, Randolph AFB, Texas

FACTORS AFFECTING THE ENDURANCE OF PSYCHOMOTOR SKILL
   Robert B. Payne, Major, USAF (MSC), and George T. Hauty, Ph.D., U. S. Air Force School of Aviation Medicine, Randolph AFB, Texas
SCIENTIFIC PROGRAM

AN ANALYSIS OF METHODS OF G-PROTECTION
David H. Lewis, Lieut. (MC) USNR, Aviation Medical Acceleration Laboratory, Naval Air Development Center, Johnsville, Pennsylvania

AVIATOR'S OXYGEN BREATHING DEVICES; TRANSITION TO VARIABLE INTEGRATED SYSTEMS
Aaron Bloom, B.S., Aeronautical Medical Equipment Laboratory, Naval Air Experimental Station, Philadelphia, Pennsylvania

OXYGEN WANT WARNING SYSTEMS FOR MILITARY AIRCRAFT
Edward L. Michel, M.S., Aeronautical Medical Equipment Laboratory, Naval Air Experimental Station, Philadelphia, Pennsylvania

HEAD MOVEMENT MEASUREMENTS IN RELATION TO SPATIAL DISORIENTATION AND VESTIBULAR STIMULATION
Walter H. Johnson, Ph.D., Canadian Defence Research Medical Laboratories, Toronto, Canada

PHYSIOLOGICAL ASPECTS OF BINOCULAR VISION; SOME FACTORS WHICH MAY BE HAZARDOUS TO FLIGHT
Louis F. Raymond, M.D., East Orange, New Jersey

AN INTRODUCTION TO DYNAMIC VISUAL ACUITY
Elek Ludvig, Ph.D., Director of Research, Kresge Eye Institute, Detroit, Michigan

CURRENT DEVELOPMENTS IN IMPROVING INFORMATIONAL PRESENTATIONS FOR THE NAVY PILOT

Afternoon Session—2 p.m.

IMPROVEMENTS FOR THE PILOT CAN INCREASE AIRCRAFT EFFICIENCY
Alfred M. Mayo, M.E., Douglas Aircraft Co., El Segundo, California

Simplifying the Pilot's Task Through Display Quickening
Franklin V. Taylor, Ph.D., and Henry P. Birmingham, A.B., Naval Research Laboratory, Washington, D.C.

A NEW LOOK FOR AIRCRAFT INSTRUMENTATION
George W. Hoover, Lieut. Comdr., USN, Office of Naval Research, Washington, D.C.

SKY UNLIMITED: A Panel on Extreme Speed and Altitude
In this unique feature of the program, a group of the world's fastest humans will discuss the aeromedical aspects of their experiences. The participants are the leading civilian and military test pilots.