

Scientific Program and Highlights of Chicago Meeting, April 16-18

Innovations in the scientific program of the twenty-seventh annual meeting of the Aero Medical Association at the Drake Hotel, Chicago, April 16-18, 1955, will provide the most comprehensive review of current progress in aviation medicine ever presented to the membership, according to President K. E. Dowd of Montreal. More than 130 papers, plus various panels and symposia, have been scheduled.

In addition to a full social and scientific program, Dr. George J. Kidera, general chairman of the meeting, has arranged a record number of technical exhibits that depict advances in aviation medicine and allied specialties.

SECTION MEETINGS

Following the opening ceremony and the Louis H. Bauer Lecture on April 16, a number of significant scientific reports will be presented in a general session. The afternoon will be devoted to a session on space medicine and civil aviation medicine. On the second day, three simultaneous section meetings will be conducted on aviation physiology; ophthalmology, acceleration and deceleration; and current airline medical problems, including passenger transportation and noise and vibration. Three separate sessions will also be held on the morning of April 18 on pilot selection and aviation psychology; personal equipment; and aviation pathology and educational programs. On the final afternoon, a notable group of test pilots and flight surgeons will participate in a symposium on "Escape from High Performance Aircraft."

Tours of the Argonne National Laboratory and the Argonne Cancer Research Hospital have been arranged for April 19.

FEBRUARY, 1956

FELLOWS' DINNER

The Fellows' Dinner will be held, as is customary, on the evening of the first day of the meeting. The business luncheon is scheduled for the following day, and the annual banquet on the evening of April 18. The guest of honor and principal speaker at the banquet is Sir William P. Hildred, former Director General of Civil Aviation in the United Kingdom, who has been Director General of the International Air Transport Association since 1946.



SIR W. P. HILDRED

WIVES' WING

The Wives' Wing, ladies auxiliary of the Association, will hold its fifth meeting under the presidency of Mrs. Robert J. Benford. Mrs. K. E. Dowd is honorary president. The general chairman of the Wing's meeting is Mrs. George J. Kidera, Chicago, and heads of the various committees include Mrs. Robert H. Carmody, Kenilworth, Ill., luncheon; Mrs. Raymond A. Lawn, Lubbock, Texas, registration; Mrs. Wilbur E. Kellum, San Francisco, awards; Mrs. Jan H. Tillisch, Rochester, Minn., resolutions; Mrs. George B. Green, Arlington, Va., nominations; and Mrs. Theodore C. Bedwell, Jr., Chevy Chase, Md., membership. The ladies' program includes a tea and reception on April 16, a luncheon the following day, visits to several television studios, sightseeing and shopping tours.

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The complete scientific program, arranged by a committee under the chairmanship of Dr. John P. Marbarger, Chicago, follows.

First Day of Meeting Monday, April Sixteenth

Drake Hotel, Chicago

Opening Ceremony—9 A.M.

NATIONAL ANTHEM

WELCOME—*K. E. Dowd, M.D.*, President, Aero Medical Association

THE LOUIS H. BAUER LECTURE—(Name of speaker to be announced)

General Session—10:30 A.M.

EMERGENCY SURVIVAL IN THE ARCTIC

K. Rodahl, USAF Arctic Aeromedical Laboratory, Ladd AFB, Alaska

CHANGING EMPHASIS IN AVIATION MEDICINE

A. Graybiel, USN School of Aviation Medicine, Pensacola, Fla.

HUMAN ENGINEERING—ENGINEERING OR PSYCHOPHYSIOLOGY?

R. Bromiley, Defence Research Medical Laboratory, Toronto, Canada

THE DEVELOPMENT OF AN AVIATION MEDICINE RESIDENCY PROGRAM

M. S. White, Hq. Tactical Air Command, Langley AFB, Va.

THE AEROMEDICAL ASPECTS OF TURBO PROP COMMERCIAL AIRCRAFT IN THE UNITED STATES

L. G. Lederer, Capital Airlines, Washington, D. C.

Space Medicine Session—2 P.M.

PHYSIOLOGY AND PSYCHO-PHYSIOLOGY OF SPACE EQUIVALENT TRAVEL

THE PHYSICS OF THE UPPER ATMOSPHERE

J. Kaplan, Univ. of California at Los Angeles, Calif.

MEDICAL AND PHYSIOLOGICAL CONSIDERATIONS IN SPACE TRAVEL

F. A. Hitchcock, Ohio State University, Columbus, Ohio

ENVIRONMENTAL CONSIDERATIONS OF SPACE TRAVEL FROM THE ENGINEERING VIEWPOINT

A. M. Mayo, Douglas Aircraft Company, El Segundo, Calif.

LIFE AT THE BOILING POINT OF TISSUE AT ROOM TEMPERATURE

D. E. Beischer, USN School of Aviation Medicine, Pensacola, Fla.

TEMPERATURE OF A SPACE SATELLITE AND HUMAN HEAT AND WATER BALANCE IN IT

K. Buettner, University of Washington, Seattle, Wash.

SENSOMOTORIC ADAPTATIONS DURING WEIGHTLESSNESS

S. J. Gerathewohl, H. Strughold, H. D. Stallings, USAF School of Aviation Medicine, Randolph AFB, Texas

GRAVI-RECEPTORS

H. Strughold, USAF School of Aviation Medicine, Randolph AFB, Texas

RADIOBIOLOGY OF PRIMARY COSMIC RADIATION

DAMAGE AND REPAIR IN MAMMALIAN TISSUES EXPOSED TO COSMIC RAY HEAVY NUCLEI

H. B. Chase, Brown University, Providence, R. I.

IMPROVED TECHNIQUES FOR EXPOSING ANIMALS TO PRIMARY COSMIC RAY PARTICLES

D. G. Simons, USAF Aeromedical Field Laboratory, Holloman AFB, N. M.

Monday, April Sixteenth

Space Medicine Session (continued)

COSMIC PARTICLE TRACK PLATE MONITORING TECHNIQUE

H. H. Kuehn and *D. G. Simons*, USAF Aero Medical Field Laboratory, Holloman AFB, N. M.

OPTIMUM ALTITUDES FOR BIOLOGICAL EXPERIMENTATION WITH THE PRIMARY COSMIC RADIATION

H. J. Schaefer, USN School of Aviation Medicine, Pensacola, Fla.

TRACKS OF HEAVY PRIMARIES IN EMULSION AND BIOLOGICAL TISSUE

H. Yagoda, Laboratory of Physical Biology, National Institutes of Health, Bethesda, Md.

MICROBEAM IRRADIATION STUDIES AND BIOLOGICAL EFFECTS OF HEAVY PRIMARIES

A. T. Krebs, USA Medical Field Research Laboratories, Fort Knox, Ky.

EFFECTS OF HEAVY PRIMARIES ON TISSUE CULTURES

W. Hild, University of Texas School of Medicine, Galveston, Texas

Civil Aviation Medicine Session—4 P.M.

PANEL: THE PROBLEM OF THE AGING PILOT

William R. Stovall, M.D., Chairman

The Panel will include a group of physicians and a group of test pilots. The following physicians will participate. Names of pilots will be announced later: *John A. Tamisiea, M.D.*, Omaha, Neb.; *Charles W. Klanke, M.D.*, Houston, Texas; *George J. Kidera, M.D.*, Chicago, Ill.; *Richard L. Meiling, M.D.*, Columbus, Ohio, and *Charles I. Barron, M.D.*, Burbank, Calif.

CIVIL AERONAUTICS ADMINISTRATION MEDICAL EXAMINERS FORUM

Second Day of Meeting Tuesday, April Seventeenth

Section on Aviation Physiology—8:30 A.M.

EFFECTS OF VARIOUS PILOTS TASKS ON METABOLIC RATES

P. Tiller, H. R. Greider, and *E. Grabiak*, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.

UNCONSCIOUS INCIDENTS WHILE FLYING

T. J. Powell, RCAF Institute of Aviation Medicine, Toronto, Canada

HYPERVENTILATION AND SIMULATED ALTITUDE

F. Sunahara, F. Girling, R. Snyder, and *D. Topliff*, Defence Research Medical Laboratory, Toronto, Ontario.

CARBON DIOXIDE ANALYSIS USING THE CARBON DIOXIDE DOUBLETS NEAR 2883 AND 2896 Å

C. S. White, L. C. Watkins, Jr., and *E. E. Fletcher*, Lovelace Foundation, Albuquerque, N. M.

Tuesday, April Seventeenth

Section on Aviation Physiology (continued)

- OXYGEN ANALYSIS USING THE OXYGEN TRIPLET LOCATED NEAR 7772 Å
C. S. White, L. C. Watkins, Jr., and E. E. Fletcher, Lovelace Foundation, Albuquerque, N. M.
- THE CATALYTIC EFFECT OF MITOCHROME ON THE ELECTRON TRANSFER MECHANISM OF THE RESPIRATORY ENZYME CYTOCHROME-C
H. W. Shmukler, B. D. Polis, and J. Wyeth, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- BRIEF INSTANTANEOUS ANOXIA IN MAN
U. C. Luft and W. K. Noell, USAF School of Aviation Medicine, Randolph AFB, Texas
- TRANSTHORACIC PRESSURE IN MAN DURING RAPID DECOMPRESSION
U. C. Luft and R. W. Bancroft, USAF School of Aviation Medicine, Randolph AFB, Texas
- GASEOUS CAVITY FORMATION IN EXPLOSIVELY DECOMPRESSED ANIMALS
L. J. Santa Maria and H. R. Greider, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- OBSERVATIONS ON ANIMALS EXPOSED TO ALTITUDES OF 50,000 and 60,000 FEET
A. Fasola, J. Kempf, and F. A. Hitchcock, Laboratory of Aviation Physiology, Ohio State University, Columbus, Ohio
- THE ESTIMATION OF LEAN BODY WEIGHT (LBW) FROM ANTHROPOMETRIC MEASUREMENTS
A. R. Behnke, USN Radiological Defense Laboratory, San Francisco, Calif.
- PRELIMINARY INVESTIGATION OF BONE CHANGE ASSOCIATED WITH DECOMPRESSION SICKNESS
K. R. Coburn, Naval Air Station, Corpus Christi, Texas
- PHYSIOLOGICAL STUDIES CONCERNING THE EXPOSURE OF PILOTS TO EXTREMELY HIGH ALTITUDES
N. L. Barr, Naval Medical Research Institute, Bethesda, Md.
- A SIMPLE PRACTICAL METHOD FOR DETERMINING CARDIAC OUTPUT BY USE OF ISOTOPES
R. E. Zipp, R. Grove, J. M. Webber, and T. F. McGuire, Miami Valley Hospital, Dayton, Ohio
- THE EFFECT OF POSITIVE PRESSURE BREATHING UPON THE DISTENSIBILITY OF THE CAPACITY VESSELS OF THE UPPER LIMB
J. Ernsting, RAF Institute of Aviation Medicine, London
- SOME CHARACTERISTICS OF PRESSURE BREATHING
G. H. Kydd, and F. A. Hitchcock, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- PHYSIOLOGY OF PRESSURE SUITS
H. Roxburgh, RAF Institute of Aviation Medicine, London
- DIFFERENTIAL DIAGNOSIS OF HEMATOLOGIC DISEASES AIDED BY MECHANICAL CORRELATION OF DATA
M. Lipkin and J. D. Hardy, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- THE COMPARATIVE TOLERANCE OF NEGROES AND CAUCASIANS TO A STANDARDIZED COLD STRESS AS INDICATED BY BODY TEMPERATURE AND METABOLIC RATE
D. W. Rennie and T. Adams, USAF Arctic Aeromedical Laboratory, Ladd AFB, Alaska
- THERMAL REACTIONS TO DIFFERENT AMBIENT TEMPERATURES OF SUBJECTS WEARING A VENTILATED FULL PRESSURE SUIT AT ALTITUDE
H. R. Greider and L. J. Santa Maria, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.

Tuesday, April Seventeenth

Section on Aviation Physiology (continued)

AN EVALUATION OF THE PRESENT STATUS OF HUMAN PERFORMANCE IN EXTREME HEAT ENVIRONMENTS

J. Lyman, University of California at Los Angeles, Calif.

THE RELATION OF ALTITUDE TO THE GASEOUS COMPOSITION OF FLATUS IN MAN

F. R. Steggerda, University of Illinois, Urbana, Ill.

THE CAUSE OF MOTION SICKNESS

J. E. Steele, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio

THE EEG, CONSCIOUSNESS, AND SLEEP

C. W. Simon and *W. H. Emmons*, Hughes Aircraft Company, Culver City, Calif.

Section on Aviation Ophthalmology—8:30 A.M.

RECENT ADVANCES IN AVIATION OPHTHALMOLOGY

H. W. Rose, USAF School of Aviation Medicine, Randolph AFB, Texas

SOME THEORETICAL CONSIDERATIONS OF BRIGHTNESS CONSTANCY AS IT RELATES TO COCKPIT LIGHTING

W. O. Hambacher, USN Aeronautical Medical Equipment Laboratory, Philadelphia.

A STUDY OF THE EFFECT OF FLASH RATE AND ON/OFF RATIO ON THE DETECTABILITY OF FLASHING LIGHTS

L. M. Crumley and *W. Atkinson*, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.

DETECTION OF SEPARATIONS BETWEEN ADJACENT SIGNALS ON A SIMULATED PPI RADAR SCOPE

R. M. Herrick, *H. E. Adler*, *J. E. Coulson*, and *G. L. Howett*, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.

EYE MOVEMENT PATTERNS IN RESPONSE TO MOVING OBJECTS

B. Bhatia, Defence Science Laboratory, New Delhi, India.

STUDIES OF NYSTAGMUS AND OCULOGYRAL ILLUSIONS ON THE HUMAN CENTRIFUGE

R. F. Gray, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.

Section on Acceleration and Deceleration—10:30 A.M.

ACCELERATIONS ENCOUNTERED IN NAVY JET FIGHTER AIRCRAFT

F. Austin and *H. N. Hunter*, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.

UTILIZATION OF A SYSTEM OF GIMBALS ON THE HUMAN CENTRIFUGE FOR THE CONTROL OF DIRECTION OF ACCELERATION ON A SUBJECT

R. J. Crosbie, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.

GRAVITATIONAL STRESS AND VISUAL ACUITY

W. J. White and *W. R. Jorve*, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio

PHYSIOLOGICAL REACTIONS TO THE SUPINE POSITION

P. J. Dorman and *R. W. Lawton*, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.

Tuesday, April Seventeenth

Section on Acceleration and Deceleration (continued)

- COMPARISON OF HUMAN TOLERANCE TO ACCELERATION OF SLOW AND RAPID ONSET
R. Edelberg, J. P. Henry, J. A. Maciolek, E. W. Salzman and G. D. Zuidema, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio
- CALIBRATION PROBLEMS AND USES OF X-RAY CINEFLUOROGRAPHY
C. Clark, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- SOME RECORDINGS OF VERTIGO OCCURRING DURING AEROBATICS
W. H. Johnson, Institute of Aviation Medicine, Department of National Defence, Toronto, Canada
- THE SODIUM AND POTASSIUM CONTENT OF BRAIN AND MUSCLE OF RATS SUBJECTED TO HIGH ACCELERATION
B. F. Burgess, Jr., C. F. Gell, and D. Cranmore, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- EXPERIMENTS ON ADAPTATION TO ACCELERATION WITH GUINEA PIGS AND RATS AS TEST ANIMALS
D. Cranmore and H. L. Ratcliffe, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- THE PHYSIOLOGICAL SIGNIFICANCE OF THE MORPHOLOGICAL DISLOCATION OF ORGANS AND TISSUES OF RATS EXPOSED TO GRADUATED INCREMENTS OF ACCELERATION STRESS AND TIME
C. F. Gell, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- THE AERONAUTICAL MEDICAL EQUIPMENT LABORATORY LINEAR ACCELERATOR
R. Fonash, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- SOME THRESHOLDS OF GROSS BODILY INJURY IN RATS RESULTING FROM THE APPLICATION OF HIGH LINEAR DECELERATIVE FORCE
L. M. Libber, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- A STUDY OF THE FEASIBILITY OF CONTINUOUS BLOOD FLOW MEASUREMENTS UNDER ACCELERATION STRESS USING RADIOACTIVE TRACERS AND WITHOUT TAKING BLOOD SAMPLES
J. Taylor and R. Crosbie, USN Aviation Medical Acceleration Laboratory, Johnsville, Pa.
- A COMPRESSED AIR CATAPULT FOR HIGH IMPACT FORCES
J. P. Stapp and W. C. Blount, USAF Aero Medical Field Laboratory, Holloman AFB, N. M.
- SUPERSONIC DECELERATION AND WINDBLAST
J. P. Stapp and C. D. Hughes, USAF Aero Medical Field Laboratory, Holloman AFB.
- TIME MOTION STUDIES ON ESCAPE FROM AIR TRANSPORT FOLLOWING EXPOSURE TO CRASH FORCES
J. P. Stapp and S. T. Lewis, USAF Aero Medical Field Laboratory, Holloman AFB.
- TRAJECTORY STUDIES OF EJECTION SEAT SYSTEMS IN HIGH PERFORMANCE AIRCRAFT
C. Woodward, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- THE DEVELOPMENT OF AUTOMATIC SEPARATION AND PARACHUTE DEPLOYMENT FOR NAVY EJECTION SEAT SYSTEMS
C. T. Koochembere, USN Aeronautical Medical Equipment Laboratory, Philadelphia.

Tuesday, April Seventeenth

Section on Air Passenger Transportation—8:30 A. M.

PANEL: CURRENT AIRLINE MEDICAL PROBLEMS
Kenneth L. Stratton, M.D., Moderator

PATIENT PASSENGERS! A SUMMARY OF RECENT CONCEPTS AND SOME CONSIDERATIONS
FOR THE FUTURE
O. H. Comess, Chicago, Illinois

MEDICAL PROBLEMS IN HOSTESS SELECTION
H. Gartmann, Swissair, Zurich

TEN-YEAR SURVEY OF FLYING PERSONNEL OF SABENA AIRLINES
A. Allard, Sabena Airlines, Brussels

ELECTROCARDIOGRAM CHANGES AND EVALUATION IN AIRLINE FLIGHT PERSONNEL
G. J. Kidera and *C. E. Murphy*, United Air Lines, Chicago, Ill.

THE ELECTROCARDIOGRAM IN THE MEDICAL ASSESSMENT OF COMMERCIAL PILOTS
F. A. L. Mathewson, Department of Medicine, University of Manitoba, Canada

MEDICAL PROBLEMS IN INTERNATIONAL AIRLINE OPERATION
O. B. Schreuder and *J. G. Constantino*, Pan American World Airways System, Jamaica,
N. Y.

CARE OF AIRCREW ENGAGED IN MILITARY AIR TRANSPORT FLYING
J. R. R. Jenkins, Transport Command, Royal Air Force, Wiltshire, England.

THE FLIGHT RECORDER IN AEROMEDICAL RESEARCH
J. J. Ryan, General Mills, Inc., and Univ. of Minnesota, Minneapolis, Minn.

ANTHROPOMETRY IN AIRCRAFT ENGINEERING DESIGN
J. A. Roebuck, Jr., Douglas Aircraft Company, Santa Monica, Calif.

PROGRESS IN AEROMEDICAL EVACUATION
L. R. Braswell, Hq. Military Air Transport Service, Andrews Air Force Base, D. C.

AVIATION MEDICAL FIRST AID
W. R. Franks, RCAF Institute of Aviation Medicine, Toronto, Canada

RADIOACTIVE CONTAMINATION OF AIRCRAFT
J. L. Dick and *J. W. Lane*, USAF Special Weapons Center, Kirtland AFB, N. M.

Section on Noise and Vibration—4 P.M.

EFFECT OF NOISE ON HUMAN PERFORMANCE
H. J. Jerison, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio

SPEECH COMMUNICATION IN NOISE
J. M. Pickett and *K. D. Kryter*, USAF Cambridge Research Center, Bolling AFB,
Washington, D. C.

AUDITORY ACUITY OF PERSONNEL EXPOSED TO THE NOISE ENVIRONMENT OF AN ENGINE
TEST LABORATORY
R. Noble, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.

A QUESTIONNAIRE STUDY OF NOISE PROBLEMS ON AIR FORCE BASES
R. G. Hansen, USAF Aero Medical Laboratory, Wright-Patterson AFB, Dayton, Ohio

CRITERIA FOR SHORT-TERM EXPOSURE TO HIGH INTENSITY JET AIRCRAFT NOISE
K. M. Eldred, *W. J. Gannon*, and *H. E. von Gierke*, USAF Aero Medical Laboratory,
Wright-Patterson AFB, Dayton, Ohio

AUDIOMETRIC STUDIES OF FLIGHT LINE MECHANICS
C. I. Barron, Lockheed Aircraft Corp., Burbank, Calif.

Third Day of Meeting

Wednesday, April Eighteenth

Section on Pilot Selection and Aviation Psychology—8:30 A. M.

- THE APPLICATION OF THE EXERCISE STRESS TEST IN AVIATION MEDICINE
G. M. FitzGibbon, RCAF Institute of Aviation Medicine, Toronto, Canada
- FURTHER DEVELOPMENTS ON ADAPTABILITY SCREENING OF FLYING PERSONNEL
S. B. Sells, USAF School of Aviation Medicine, Randolph AFB, Texas
- ANXIETY ABOUT FLYING AMONG BEGINNING AVIATORS
J. T. Bair and *W. F. O'Connor*, USN School of Aviation Medicine, Pensacola, Fla.
- STUDIES ON MOTIVATION FOR FLYING AND CAREER INTENT
E. S. Flyer, USAF Personnel and Training Research Center, Lackland AFB, Texas
- SOME PSYCHOLOGICAL FACTORS GOVERNING THE EFFECTS OF CEREBRAL DEPRESSANTS UPON VERBAL MEMORY
R. B. Payne and *G. T. Hauty*, USAF School of Aviation Medicine, Randolph AFB.
- PSYCHOLOGICAL TESTS AND THE SELECTION AND CLASSIFICATION OF AIR FORCE OFFICERS
E. C. Tupes and *R. E. Christal*, USAF Personnel and Training Research Center, Lackland AFB, Texas
- VERSATILITY POTENTIALS OF SUCCESSFUL NAVAL AVIATORS
L. E. McDonald, *D. C. Gaede*, and *D. L. Briggs*, U. S. Naval Hospital, Oakland, Calif.
- HUMAN FACTORS IN FLIGHT TEST
P. S. Shafer, Air Force Flight Test Center, Edwards AFB, Calif.
- METHODS FOR THE RATIONAL ASSEMBLY OF INDIVIDUALS INTO CREWS
S. Rosenberg, MacDill Air Force Base, Fla.
- CONTROLLING RESPONSE SET ON PERSONALITY INVENTORIES
R. B. Voas, USN School of Aviation Medicine, Pensacola, Fla.
- CHARACTERISTICS OF SUCCESSFUL PILOTS
D. K. Trites and *A. L. Kubala*, USAF School of Aviation Medicine, Randolph AFB.
- MUSCLE BALANCE AND SAFETY IN AVIATION
A. J. Herbolsheimer, Bensenville, Ill.
- A STUDY OF GROUP ADAPTATION UNDER BLIZZARD CONDITIONS
E. P. Torrance, *G. R. LaForge*, *R. Mason*, and *M. Levi*, Air Force Personnel and Training Center, Stead AFB, Nev.
- THE EFFECTS OF DIFFERENT METHODS OF PRESENTATION OF TIME INFORMATION ON LEGIBILITY
J. Gaito, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- SOME PRELIMINARY TESTS OF THE INDEPENDENCE OF SUCCESSIVE DIAL READINGS
D. E. Fletcher and *L. M. Crumley*, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.

Wednesday, April Eighteenth

Section on Personal Equipment—8:30 A.M.

- FURTHER STUDIES ON THE MEDICAL ASPECTS OF PARTIAL PRESSURE SUIT INDOCTRINATION
H. W. Randel, J. H. Leonard, I. T. Taylor, and L. S. Burnett, Gunter Branch, USAF School of Aviation Medicine, Gunter AFB, Ala.
- OXYGEN EQUIPMENT: PUT IT ON, TURN IT ON AND FORGET IT
J. R. Poppen, Northridge, Calif.
- EVALUATION TRIALS OF A-13A OXYGEN MASK HOSE CONNECTOR WARNING DEVICE
E. F. Schroeder, RCAF Institute of Aviation Medicine, Toronto, Canada.
- OXYGEN REQUIREMENTS IN FUTURE COMMERCIAL TRANSPORT AIRCRAFT
A. E. Miller, Scott Aviation Corp., Lancaster, N. Y.
- TRENDS IN PERSONAL EQUIPMENT DEVELOPMENT
E. E. Martin, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio
- INTEGRATION OF SAFETY AND SURVIVAL EQUIPMENT FOR AIRCREW OF NAVAL AIRCRAFT
C. A. Marcks, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- BALLISTOCARDIOGRAPHY—ITS VALUE IN AVIATION MEDICINE
B. Schneider, Danville, Pa.
- ORO-NASOMETER: ANTHROPOMETRIC DEVICE FOR OBTAINING FACIAL MEASUREMENTS AS APPLIED TO OXYGEN MASK STUDIES
M. J. Damato and A. Bloom, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- THE PROBLEMS OF OXYGEN BREATHING MASK DEVELOPMENT
A. Bloom and E. L. Michel, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- AN ADHESIVE TYPE OXYGEN MASK
J. J. Swearingen, CAA Medical Research Laboratory, Columbus, Ohio
- DEVELOPMENT OF PARAMEDIC AIRCRAFT-FIELD RESUSCITATORS
H. W. Seeler, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio
- EXPLOSIVE DECOMPRESSION: TESTS OF MATERIAL FAILURE
E. S. Mendelson, USN Aeronautical Medical Equipment Laboratory, Philadelphia, Pa.
- EFFECT OF KNOB ARRANGEMENT ON CONSUMPTION OF PANEL SPACE
J. V. Bradley, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio
- MEDICAL REPORT OF "OPERATION HANDCLASP"
R. W. Brown, 8th Fighter Bomber Wing, APO 244, San Francisco, Calif.
- UTILIZATION OF RESEARCH IN OPERATIONAL CONTEXTS
W. B. Webb, USN School of Aviation Medicine, Pensacola, Fla.

Section on Aviation Pathology—8:30 A. M.

- PERSONNEL TOLERANCE IN HIGH-POWER MICROWAVE RADIATION
W. W. Salisbury, Remler Company, Gray Scientific Division, San Francisco, Calif.
- THE RADAR BEAM—A POTENTIAL HEALTH HAZARD
D. B. Williams, USAF School of Aviation Medicine, Randolph AFB, Texas
- AN ANALYSIS OF 2400 PILOT ERROR ACCIDENTS
H. G. Moseley, Norton Air Force Base, Calif.
- AIRCRAFT ACCIDENTS AS RELATED TO PILOT AGE AND EXPERIENCE
H. G. Moseley and A. F. Zeller, Norton Air Force Base, Calif.
- HISTOPATHOLOGIC EXAMINATION OF TISSUE FROM PILOTS FROM 30 JET CRASHES
H. G. Shaub and F. K. Mostofi, Armed Forces Institute of Pathology, Washington.
- LOCAL VASCULAR RESPONSE TO VIBRATIONS
E. K. Franke, USAF Aero Medical Laboratory, Wright-Patterson AFB, Ohio

Wednesday, April Eighteenth

Section on Aviation Medical Education—10:30 A.M.

MEDICAL EDUCATION FOR NATIONAL DEFENSE

J. R. Schofield, Department of Defense, Washington, D. C.

THE USAF AVIATION MEDICINE SPECIALTY TRAINING PROGRAM

R. H. Lackay, Department of the Air Force, Office of the Surgeon General, Washington, D. C.

ROLE OF PATHOLOGY IN AVIATION MEDICINE

F. M. Townsend, Department of the Air Force, Office of the Surgeon General, Washington, D. C.

AVIATION PATHOLOGY

S. I. Brody, Bureau of Medicine and Surgery, Department of the Navy, Washington.

AIR POWER, MAN POWER, AND AVIATION MEDICINE

G. S. Backenstoe, Emmaus, Pa.

ORGANIZATION OF MEDICAL COVERAGE OF THE NATIONAL AIRCRAFT SHOW

C. C. Shaw, Philadelphia Naval Shipyard, Philadelphia, Pa.

Symposium: Escape from High Performance Aircraft—2 P.M.

Captain C. P. Phoebus, (MC) USN, Chairman

INTRODUCTION AND HISTORY

J. R. Poppen, Northridge, Calif.

AIRCRAFT PERFORMANCE FACTORS

H. F. Morelock, Consolidated Vultee Aircraft Corp., San Diego, Calif.

STATISTICS—UNITED STATES NAVY

C. E. Wilbur, Department of the Navy, Washington, D. C.

STATISTICS—UNITED STATES AIR FORCE

H. G. Moseley, Norton Air Force Base, Calif.

ENGINEERING AND DESIGN FACTORS

R. H. Frost, Stanley Engineering Corp., Denver, Colo.

HUMAN TOLERANCE FACTORS

J. P. Stapp, Holloman Air Force Base, N. M.

ACCESSORY EQUIPMENT AND TESTING PROBLEMS

R. A. Bosee, USN Auxiliary Air Station, El Centro, Calif.

ESCAPEES' EXPERIENCE

S. Crossfield, Edwards Air Force Base, Calif.

PSYCHOLOGICAL FACTORS

A. F. Zeller, Norton Air Force Base, Calif.

PREDICTIONS FOR THE FUTURE

A. M. Mayo, Douglas Aircraft Corp., El Segundo, Calif.