PROGRAM

NACA CONFERENCE ON AERODYNAMIC PROBLEMS
OF TRANSONIC AIRPLANE DESIGN

AMES AERONAUTICAL LABORATORY
MOFFETT FIELD, CALIFORNIA

NOVEMBER 5 AND 6, 1947

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NOVEMBER 5

Registration
8:30 AM to 9:00 AM

Opening Remarks

Mr. Smith J. DeFrance, Director, Ames Aeronautical Laboratory.
Dr. Hugh L. Dryden, Director of Aeronautical Research
Mr. Ira H. Abbott, Chairman

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I. Lift and Drag

1. A review of recent information relating to the drag rise of airplanes.

By J. W. Wetmore, Langley Laboratory
(Discussion)

2. Airfoil section characteristics at high subsonic speeds.

By L. S. Stivers, Ames Laboratory
(Discussion)

3. Lift and drag characteristics of wings with several angles of sweep at high subsonic Mach numbers.

By R. T. Whitcomb, Langley Laboratory
(Discussion)
INTERMISSION - 10 minutes

4. Landing characteristics of high-speed wings.
   By H. A. Wilson, Jr., Langley Laboratory
   (Discussion)

II. Air Inlets and Nacelles

1. Nose inlets.
   By N. F. Smith, Langley Laboratory
   (Discussion)

2. Summary of NACA submerged inlet investigations.
   By E. A. Mossman, Ames Laboratory
   (Discussion)

3. Investigation of side inlets at supersonic speeds.
   By W. F. Davis, Ames Laboratory
   (Discussion)

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4. Nacelles for high critical speeds on straight and swept wings.
   By R. Dannenberg, Ames Laboratory
   (Discussion)

III. Propellers

1. Propellers at high speeds.
   By E. C. Draley, Langley Laboratory
   (Discussion)

INTERMISSION - 15 minutes
IV. Flutter

1. Some high-speed flutter studies.
   By I. E. Garrick, Langley Laboratory
   (Discussion)

2. Transonic flutter control surfaces.
   By A. L. Erickson, Ames Laboratory
   (Discussion)

NOVEMBER 6

(Conference convenes at 9:00 AM)

V. Stability and Control

1. Prediction of the aerodynamic characteristics of wings of arbitrary plan form.
   By V. I. Stevens, Ames Laboratory
   (Discussion)

   By C. J. Donlan, Langley Laboratory
   (Discussion)

3. Effect of sweep on controls.
   (a) Effectiveness,
       By J. G. Lowry, Langley Laboratory
   (b) Hinge moments
       By J. A. Axelson, Ames Laboratory
       (Discussion)

INTERMISSION - 10 minutes

4. Factors effecting lateral stability and controllability.
   By J. P. Campbell, Langley Laboratory
   (Discussion)
5. Low-speed flight investigation of an airplane with swept-back wings.
   By W. H. Phillips, Langley Laboratory
   (Discussion)

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6. Flight characteristics at transonic speeds.
   (a) P-80 investigation.
       By H. H. Brown, Ames Laboratory
   (b) Research airplanes.
       By W. C. Williams, Langley Laboratory
       (Discussion)

VI. Configurations with extreme sweep.
1. Characteristics of a configuration with a large angle of sweepback.
   By R. T. Jones, Ames Laboratory
   (Discussion)

   INTERMISSION - 15 minutes

2. Characteristics of a triangular-winged aircraft.
   (a) Performance data.
       By D. J. Graham, Ames Laboratory
   (b) Stability and control.
       By R. M. Crane, Ames Laboratory
       (Discussion)

VII. Discussion and recommendations.