TO: SAF/RD

1. The attached Joint USAF-NASA Transonic Aircraft Technology (TACT) Program Memorandum of Understanding is forwarded for signature.

2. The Memorandum of Understanding specifies the NASA participation (wind tunnel and flight testing) in the Air Force TACT aluminum super-critical wing program. Our staff informs me that specific finance plans and cost sharing figures were not included in the MOU because of precedence established with previous Air Force-NASA MOUs. NASA's participation has been estimated to be approximately $5 million.

3. If you agree there should be no mention of cost in the MOU, recommend the Memorandum of Understanding be signed and returned to AF/RDPND for reproduction and distribution.

HENRY E. KUTHEMAN, JR., MAJ. GEN., USAF
Assistant DCS, Research & Development

1 Arch Memorandum of Understanding

FOR ACTION OF N/A
FOR INFO OF HSAD, Dir., Other Act., Loving
FOR SIGNATURE OF

D/M DATE Assigned By

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NASA-LANGLEY JUN 30 1971
Memorandum of Understanding
Joint USAF-NASA Transonic Aircraft Technology (TACT) Program

I. GENERAL

1. The United States Air Force and the National Aeronautics and Space Administration have determined that the best interests of each will be served by conducting a joint USAF-NASA development and flight research program for advancement and proof-of-concept of supercritical wing technology.

2. Implementation of the joint program will provide the best combination of USAF and NASA personnel, facilities and financial resources on a non-reimbursable basis, and at the lowest cost to government, from which to gain major new knowledge in supercritical airfoil technology applicable to highly maneuverable advanced aircraft. An F-111 aircraft will be modified with a supercritical wing and flight tested to demonstrate this technology and to obtain design and correlation data in the areas of aerodynamics, stability, control, handling qualities and energy management. All participating organizations are permitted to analyze and document the results of this program; however, coordination of this effort between the various organizations involved will be accomplished to minimize duplication of effort. Provisions of this agreement are summarized in the following paragraphs. Supplementary agreements will be entered into separately concerning the loan of the F-111 aircraft and the working relationships between the Air Force and NASA operating elements.

3. Release of information on activities or events which have specialized interest for any participating organization can be made by that organization in accordance with the provisions of this paragraph and through normal public information channels approved for each organization. Normally, the Director, Flight Research Center (FRC), in coordination with the Commander, Air Force Flight Test Center (AFFTC), will release information concerning the TACT flight test program at the flight test site of operations. All public information released will state that the TACT program is a joint USAF-NASA effort. General policy supervision of the public information program and authority to resolve information differences will be exercised jointly by the Assistant Administrator for Public Affairs, NASA, and the Director of Information, Office of the Secretary of the Air Force, or their representatives.

4. This Memorandum of Understanding will remain in effect until the end of FY 75 unless modified, extended, or terminated earlier by written request of either party and subsequent agreement by both parties. All termination costs of each agency will be defrayed by each agency using funds made available for the joint program.
II. USAF RESPONSIBILITIES

5. The Air Force Flight Dynamics Laboratory (AFFDL) will be responsible for program management, direction and integration, establishment of program objectives, contracting for design, analysis of wind tunnel data, fabrication and installation of the supercritical wing, and assurance that the overall program results are adequately documented for future system application.

6. The AFFDL will sponsor a joint NASA-USAF symposium after completion of the flight test to expedite dissemination of the results of this program to the technical community.

7. For flight test in the joint technology program the USAF will loan, or otherwise make available, as appropriate, but at no cost to NASA, an F-111 aircraft, vehicle spares, and supporting material, that can accomplish program objectives and is acceptable to the testing organization.

8. AFPTC will provide normal base services and support spares, fuel, oil, chase and other aircraft support on a non-reimbursable basis. The AFPTC will also provide engineering support in conducting the joint flight test program and will assist in establishing test requirements.

III. NASA RESPONSIBILITIES

9. The NASA Langley and Ames Research Centers will be responsible for conducting the wind tunnel tests and assisting in establishing flight test and instrumentation requirements.

10. Overall technical and operational responsibility for the flight test portion of the TACT program is vested in the FRC.

11. The FRC will be responsible for vehicle maintenance, instrumentation, ground support operation, and assistance in establishing flight test requirements.

IV. USAF-NASA JOINT RESPONSIBILITIES

12. The flight test program will be conducted jointly by NASA FRC and the AFPTC. AFPTC and FRC will share such responsibility as test
piloting, mission planning, data reduction, test operation, and range support. AFPTC and FRC will conduct, for other participating organizations, an on-site review of flight test results on a quarterly basis for the duration of the flight test program.

Neil A. Armstrong
Deputy Associate Administrator (Aeronautics)
Office of Advanced Research and Technology, NASA

Date: MAY 1st 1971

Grant L. Hansen
Assistant Secretary of the Air Force (R&D)
Office of the Secretary of the Air Force

Date: 16 Jun. 1971