

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
DEPARTMENT OF TRANSPORTATION/
FEDERAL AVIATION ADMINISTRATION (FAA)
AND
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)
FOR
COCKPIT/AIR TRAFFIC CONTROL (ATC) INTEGRATION
RESEARCH

I. BACKGROUND

Traditionally, the FAA and NASA have worked closely together to advance new technologies that would enhance the operating efficiency and safety of civil aircraft. Six program areas have been defined for major activities that are mutually beneficial to the mission of both agencies. These six areas are human factors, severe weather, cockpit/ATC integration, airworthiness, environmental compatibility, and program support. Each area has a separate MOU giving the rationale, objectives, and examples of the types of research activities in that area. This MOU defines the FAA/NASA activities that will be conducted under the category of cockpit/ATC integration research.

II. RATIONALE

Heavy and increasing demand for air transportation, coupled with limited airport and airway resources, has resulted in the need to increase system capacity through technical means; in particular, through development and implementation of new National Airspace System (NAS) subsystems and ATC automation that are compatible with aircraft operations and controller/pilot capabilities. In addition, there are opportunities to improve the safety and efficiency of flight operations through the application of ATC-related technologies. Effective cooperative and joint programs between FAA and NASA can expedite the introduction of improved services for aviation system users.

III. OBJECTIVE

The objective of this MOU is to establish an understanding between the FAA and NASA to pursue, through either cooperative or joint efforts, ATC-related technologies and techniques that will increase NAS capacity and improve the safety and efficiency of flight operations.

Key areas for cooperative or joint activities will include, but not be limited to, the following:

A. ATC System Automation

The objective is to develop automation methodologies and techniques to aid the controller in more effectively managing and controlling traffic.

B. Cockpit Technology

The objective is to develop aircraft systems, avionics, and display technologies to enable the aircraft and the flight crew to participate more effectively in the air traffic management and control process.

IV. AUTHORITY

A. NASA

This agreement is entered into on behalf of NASA under authority of the National Aeronautics and Space Act of 1958, as amended, 42 USC 2473 (c)(5) and (c)(6), as implemented by NASA Management Instruction 1050.1C.

B. DOT/FAA

The acquisition of services described herein between the FAA and NASA is authorized under section 302K of the FAA Act of 1958.

V. COOPERATIVE MANAGEMENT/DIRECTION

Cooperative direction shall be implemented at three levels:

A. Policy direction shall be provided, after joint conference, by the Executive Director for System Development of the FAA and the Associate Administrator for Aeronautics, Exploration and Technology of NASA, or their appointees.

B. Program coordination shall be provided by the Associate Administrator for Advanced Design and Management Control of the FAA and the Director for Aeronautics of NASA. They will jointly review and recommend for approval any Memorandum of Agreement (MOA) or Inter-Agency Agreement (IAA) for specific cockpit/ATC research programs being conducted under the overall objectives of this MOU and within the policy guidelines of "A" above.

- C. Specific program implementation and direction shall be provided by the appropriate organization director within the FAA and the appropriate division director within the Office of Aeronautics, Exploration and Technology of NASA, or their appointees. They or their appointees will jointly prepare technical program plans and MOA's/IAA's as needed for specific cockpit/ATC research programs. MOA's/IAA's will normally be required for programs having a transfer of funds or resources between agencies. (Any agreements entered into which involve the expenditure of funds will be processed through normal procurement channels).

VI. MILESTONES AND REPORTS

Detailed objectives, schedules, and reporting will be developed as part of each individual MOA/IAA.

VII. FUNDING

The intent of the FAA and NASA is to share in the funding of any cooperative/joint program, consistent with the approved operating plan of each agency. Each MOA/IAA will identify the task assignment and incremental funding over the period of performance.

VIII. PERIOD OF PERFORMANCE

This MOU shall be effective when signed by both parties and shall remain in effect unless modified, extended, or terminated by written request of either party and subsequent agreement by both parties. All subsequent MOA's/IAA's shall incorporate appropriate periods of performance.

AGREED:

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

BY: Joseph M. Del Balso DATE: 8-14-90

TITLE: Executive Director for System Development

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

BY: [Signature] DATE: MARCH 15 1990

TITLE: Associate Administrator for
Aeronautics, Exploration and Technology