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MEMORANDUM OF UNDERSTANDING

BETWEEN THE
FEDERAL AVIATION ADMINISTRATION
OFFICE OF RESEARCH AND ACQUISITIONS
AND THE
NAVAL AIR SYSTEMS COMMAND

FOR
RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

1.0 PARTIES

This Memorandum of Understanding (MOU) is entered into by the Naval Air Systems Command (NAVAIRSYSCOM) headquartered at Naval Air Station, Patuxent River, Maryland, and the Federal Aviation Administration's (FAA) Office of Research and Acquisitions (ARA) headquartered in Washington, D.C.

2.0 PURPOSE

The purpose of this MOU is to provide a framework for a strategic research, development, test, and evaluation (RDT&E) partnership between the NAVAIRSYSCOM and the FAA. This partnership will renew and expand coordination and cooperation in aeronautical and aviation related research and technology for those areas where roles and missions are complementary. In particular, this MOU encourages:

- a. Collaboration to enhance the development and fusion of each organization's technology base and programs;
- b. The joint use of recognized organizational Centers of Excellence;
- c. Leveraging resources to produce cost-effective programs that will benefit both parties.

3.0 BACKGROUND

- a. The NAVAIRSYSCOM and the FAA share common interests in conducting research and developing technologies that relate to aviation, both military and commercial. As the FAA's Acquisition Executive, the ARA provides leadership and guidance relating to FAA acquisition policy, research, system prototyping, and agency information resource management. The ARA is the FAA line of business entrusted with the primary responsibility of ensuring that the agency has the research and technology base needed to provide a safe, secure, and efficient National Airspace System (NAS). The NAVAIRSYSCOM mission is to serve the Navy and the Nation by developing, acquiring, and supporting aircraft and related systems that can be operated and sustained at sea. The NAVAIRSYSCOM and its field activities provide total life cycle support for

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all naval aviation weapons systems including: research, design, development and engineering; acquisition; test and evaluation; training facilities and equipment; repair and modification; and in-service engineering and logistics support. The Naval Aviation Science and Technology Office (NAVSTO), located within the NAVAIRSYSCOM, focuses development of new technology on the priorities of naval aviation. The NAVSTO also serves as the focal point and interface with the other services and government agencies.

- b. In order to be responsive to national needs and realize efficiency with respect to the continuing research and development activities, coordinated planning and shared use of unique facilities and assets is in the interest of each party. Both organizations have roles and missions that are supportive and complementary, with potential for providing significant benefits from teaming, collaboration, and integration of many of their R&D activities. Benefits realized when the agencies work together includes: an enhanced perspective on joint research activities; avoiding duplication of efforts; and conservation of scarce funds and resources.
- c. Traditionally, the FAA and the Navy have worked together in search for common solutions to problems affecting commercial and military aviation. Typically, these areas of cooperation have been performed under numerous issue specific agreements directly between the FAA and various NAVAIRSYSCOM field activities (formerly, the Naval Air Test Center, the Naval Air Propulsion Center, the Naval Air Development Center, the Naval Air Engineering Center, and the Naval Weapons Center). However, as a result of Defense Department downsizing and Base Realignment and Closure legislation, these activities have been reorganized under the command of the NAVAIRSYSCOM into five Product Centers for Aircraft, Weapons, and Training Systems; Logistics Support Activities; and Aviation Depots. This comprehensive reorganization fully integrates the capabilities of each functional area under a uniform organizational structure.
- d. This reorganization provides the opportunity for broadening the partnership across all of the NAVAIRSYSCOM under a streamlined agreement that defines broad areas of RDT&E of mutual interest to both the FAA and the NAVAIRSYSCOM. Key technology areas for cooperative or joint activities will include, but not be limited to: Aging Aircraft Systems; Aircraft Hardening, Survivability, and Vulnerability; Aircraft Fire Protection Research; Engine Catastrophic Failure Containment; System Safety/Risk Analysis; Flight Controls; Aircraft Fire Fighting; Human Factors/Crew Systems; Electromagnetic Environmental Effects; Non-Destructive Inspection; Electrical Power Systems; Materials Research; Communications, Navigation, and Surveillance; and, Aviation Security Research.
- e. Informational descriptions of projects executed under this MOU will be will provided to the Joint Aeronautical Commanders Group (JACG), Science and Technology (S&T) Board via the NAVAIRSYSCOM and FAA S&T Board members. The Joint Aeronautical Commanders Group's (JACG) provides a national focus on aviation activity. The purpose of the JACG S&T Board is to provide a forum for coordination and promotion of joint activity in Aviation Science & Technology among the JACG member organizations. Coordination with the JACG S&T Board will further increase the efficiency of and avoid duplication of effort in national aviation science and technology

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development through coordination among the member agencies. JACG S&T Board member agencies are the: US Air Force, US Army, US Marine Corps, US Navy, Federal Aviation Administration, National Aeronautics and Space Administration, and the US Coast Guard.

4.0 ELEMENTS OF THE COOPERATIVE STRATEGIC PARTNERSHIP

- a. This MOU provides the mechanism for joint planning, evaluation, and the formation of teaming/partnering arrangements. These include, but are not limited to, joint road-mapping, cost-shared projects, collocation of one party's personnel with the other organization, coordination of programs to avoid duplication, or sponsorship of one party's project under the other party's management (to include transfer of funds when appropriate). In this context, specific projects/programs will be formally documented in annexes under this MOU and executed in accordance with any applicable laws and regulations relevant to the specific annex.
- b. In addition to the arrangements described in paragraph 4.a, for the execution of projects and programs, the parties will also assess both organizations' capabilities. The parties will jointly plan, evaluate, and when mutually beneficial and within mission requirements, establish dependent partnerships. In a dependent partnership, both parties agree that one organization's capability in a particular area has adequate capacity and technical superiority to the degree that it is mutually advantageous for both parties to rely on the one organization's capability in the respective area. In areas where both parties must maintain a capability to fulfill mandatory mission requirements, or when a co-dependency is advantageous, the parties agree to cooperate in the planning, utilization, and improvement of both parties' resources so as to maximize productivity of each organization. In this context, specific dependent partnerships will be formally documented in annexes under this MOU.
- c. Each annex will include the following: a synopsis of the program; delineation of programmatic, administrative, and fiscal responsibilities; recitation of any statutory or regulatory authority for efforts involving the transfer of funds or the issuance of reimbursable orders; program roadmaps including milestones; guidelines for data disposition; security considerations; allocation of resources; duration of the annex; and a list of key personnel. Each project specific annex as related to this MOU will be approved by the appropriate FAA Research Program Manager, the appropriate NAVAIRSYSCOM Director, and any other approval authorities required by the statutory or regulatory authority used to enter into the specific annex. The Commander, NAVAIRSYSCOM, and the FAA Associate Administrator of Research and Acquisitions will approve each dependent partnership annex.
- d. This MOU will be reviewed annually for currency, and updated as necessary. Responsibility organizing and conducting this review will reside with AAR-2 (Deputy Director, Office of Aviation Research) and AIR-4.3 (Department Head, Air Vehicle Engineering) for the FAA and NAVAIRSYSCOM, respectively. Annual review meetings will be held alternately between the two organizations. Meeting topics will

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include the following: the status of action items from the previous meeting; ongoing joint activities; a review of pertinent planning materials; and presentations/discussions of possible future collaborative research projects. Minutes of the annual reviews will be prepared by the hosting organization and provided to the JACG S&T Board via the NAVAIRSYSCOM and FAA S&T Board members.

- e. This MOU supercedes previous RDT&E MOUs between the FAA and the NAVAIRSYSCOM. Existing RDT&E MOUs between the FAA and former NAVAIRSYSCOM activities will be reviewed for currency and if found to be relevant, will be incorporated as annexes to this MOU.

5.0 AUTHORITY

- a. The legal authority for the FAA to enter into this agreement is the Federal Aviation Reauthorization Act of 1996, Public Law 104-264 (enacted October 9, 1996), §226 (codified at 49 U.S.C. §106(n)(1)).
- b. The legal authority for the NAVAIRSYSCOM to enter into this agreement is derived from the general powers of the Secretary of Defense to enter into contracts, cooperative agreements, and other transactions for the purposes of conducting research and development efforts (10 U.S.C §2358 and §2371). Specific authority for annexes may include the cited authorities or 15 U.S.C. §3710, 31 U.S.C. §1535 [the Economy Act] or other relevant statutory or regulatory authority.

6.0 PERIOD OF PERFORMANCE

This MOU shall become 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.

7.0 EXECUTION

IN CONSIDERATION OF THE FOREGOING, THE UNDERSIGNED HEREBY EXECUTE THIS MEMORANDUM OF UNDERSTANDING.

STEVEN ZAIDMAN
Associate Administrator
Office of Research and Acquisitions
Federal Aviation Administration

JOHN A. LOCKARD, VADM, US NAVY
Commander
Naval Air Systems Command