

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

AIR FORCE POLICY DIRECTIVE 10-23

20 MARCH 2006



Operations

AIR FORCE INNOVATION PROGRAM

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<http://www.e-publishing.af.mil>

OPR: SAF/XCOI (Mr. Lan Cawthon)
Supersedes AFD 10-23 dated 20 June 2003

Certified by: SAF/XC (Lt Gen William T. Hobbins)
Pages: 8
Distribution: F

This directive describes the Air Force Innovation Program, outlines policy for planning, conducting, and reporting selected Air Force innovation activities, and establishes the framework for conducting and integrating Air Force innovation activities. This policy directive does not implement any higher-level direction and applies to all Air Force organizations conducting innovation activities. Innovation activities described in this policy directive are derived from both the Air Force and Joint Visions and fully support both the Air Force Strategic Plan and Air Force Transformation Flight Plan. This publication also applies to the Air Force Reserve and the National Guard. Suggested changes to this publication may be submitted electronically to saf.xcoi@pentagon.af.mil, using the AF IMT 847 as an attachment. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 37-123, *Management of Records*, (will become AFMAN 33-363) and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at https://afrims.amc.af.mil/rds_series.cfm. See **Attachment 1** for a glossary of references and supporting information.

SUMMARY OF REVISIONS

Minor changes throughout the document to reflect organizational changes; removal of the term “operational” in relation to Air Force Innovation; reflects Air Force changes to capabilities based planning and minor reformatting for readability. No policies or responsibilities have been added or removed.

1. Keys to maintaining United States (US) 21st Century military superiority include: fostering innovation in new operational concepts, capabilities, technologies, and organizational structures; modernizing US armed forces; and positioning the US to respond more effectively and efficiently to future threats. Innovation is a catalyst in the Air Force transformation process, providing opportunities for the adoption of new technologies, ideas, or behavior patterns into our Air Force culture. The objective of innovation activity is the timely adoption and integration of new or improved technologies, capabilities, concepts, and processes into Air Force planning, requirements and acquisition activities, organizations, and operations. This integration helps achieve both Joint and Air Force Visions, supports Air Force military transformation goals, maintains Air Force readiness, and improves joint warfighting capabilities.

2. Desired results of Air Force Innovation activities include: improvements in current and future warfighting concepts and capabilities; creative warfighting tools that maximize air and space contributions to the joint warfighter; knowledge for informed investment and divestment decisions; identification of transition candidates for rapid fielding; and validated recommendations for changing doctrine, organization, training, materiel, leadership and education, people, and facilities (DOTMLPF).

3. Numerous communities lead and participate in a variety of innovation activities—the Air Force acquisition community, the Air Force operational community, the Air Force support community, and the Joint community, to name a few. Innovation, through constructive channeling of broad-based concepts, activities, and programs, is a key component to transformation and will improve the Air Force’s full spectrum air and space force. Channeling occurs, but is not limited to, examining innovation efforts from venues such as—Air Force Battlelabs; Science and Technology organizations; Advanced Technology Demonstrations (ATD); Joint Expeditionary Force eXperiments; Advanced Process Technology eXperiments); Advanced Concept Technology Demonstrations (ACTD); Coalition Warrior Interoperability Demonstrations; Joint Test and Evaluation; Joint and Service exercises that include experimentation events, as well as Joint and Service innovative-centered wargames. Many of these innovation activities are single-focused and frequently provide a point-solution vice an integrated one. While these innovative activities impart valuable insights, a cross functional, focused, Air Force-wide effort to integrate Air Force Innovation activities provides the foundation for true transformation. Innovation is an Air Force hallmark. Air Force Innovation activities are continuous and comprehensive—occurring throughout the Air Force at every command and organizational level. The **scope** of this policy directive, however, is limited to specific formalized innovation activities—ACTDs, Air Force Battlelab initiatives, Joint and Service experimentation, as well as Joint and Service innovative-centered wargames—depicted in the left hand block of the innovation architecture of **Figure 1**.

Figure 1. Air Force Innovation Architecture.



4. The fundamental Air Force Innovation Policy is to structure an innovation program using an integrating process that connects, combines, and leverages the results of the individual innovation activities. This will be achieved through the following more specific policies:

4.1. The Air Force will establish, manage, and sustain organizations that have specific Innovation Program responsibilities for conduct, support, and participation in Department of Defense, Air Force, major command (MAJCOM), other Service's, Joint Staff, and Combatant Command demonstrations, experiments, wargames, and exercises.

4.2. The Air Force will have an integrated knowledge/information management strategy for the Innovation Program, to create the processes and technologies for the exchange of information among innovation organizations, activities, and stakeholders.

4.3. The Air Force Innovation Program will define and promote the use of common objectives, standards, metrics, analysis tools and methods, and reporting channels.

4.4. The Innovation Program shall be managed as an enterprise to identify and eliminate duplication of efforts, optimize common or related solutions, identify gaps in an effort to address capability shortfalls, prioritize limited innovation resources, and leverage potential collaboration with the efforts of external organizations, such as the Joint community and other government agencies.

4.5. The Air Force shall develop and maintain an integrated plan to coordinate Innovation Program activities and achieve specific goals within Innovation Program resource limits. The plan shall consider all aspects of related activities in the arenas of research and development, force development to define the limitations for innovation activities.

4.6. The Air Force will define the linkage and application of innovation program activities to the overall Air Force capability-based modernization planning and programming processes, to include the relationships to strategic planning for capabilities based CONOPS concept of operations (CONOPS) efforts, capability review and risk assessments (CRRAs), and Mission Area Plans, and all related processes.

4.7. The Innovation Program efforts shall identify the DOTMLPF implementation agents (acquisition leads, doctrine advocates, etc.) at the earliest stages of innovation activities in order to begin planning, assign responsibilities, and identify resources for the potential transition of successful results to operational status. The Air Force shall continuously evaluate innovation activities to determine viability/sustainability and terminate efforts in the event that implementing agents are not identified and a feasible transition plan cannot be developed.

4.8. The Air Force will assess the results of Innovation Program activities to refine and shape the development of strategic planning guidance. The Innovation Program will identify and perform selected innovation activities for the specific purpose of refining less mature aspects of strategic guidance.

4.9. The Air Force will ensure acquisition agents, operational agents, and/or doctrine advocates are identified at the initiation of Innovation Programs to rapidly transition successful innovation initiatives to an operational capability.

4.10. The Air Force will facilitate the push and transition of promising concepts and technologies into doctrine, training, and the formal acquisition processes.

4.11. The Air Force will facilitate the appropriate exchange of information and results among Innovation activities.

4.12. The Air Force will ensure that sustainment of new technologies is considered during development to enable quick transition of successful initiatives.

5. Air Force Innovation Program authorities and responsibilities for these preceding policies are:

5.1. Office of the Secretary of the Air Force, Chief of Warfighting Integration and Chief Information Officer (SAF/XC):

5.1.1. Provides policy, guidance, and oversight (PGO) of Air Force conduct and participation in ACTDs, and coordinates with the Office of the Assistant Secretary for Acquisition (SAF/AQ).

5.1.2. Co-chairs selected steering groups with Headquarters United States Air Force (HQ USAF/XO) and SAF/AQ, provides representation to additional steering and working groups, and assists in preparing an Air Force Innovation plan.

5.1.3. Provides PGO for experimentation, battlelab initiatives, innovative-centered wargames and other Joint and Service innovation activities in coordination with HQ USAF/XO.

5.1.4. Establishes, chairs, and supports Air Force corporate structure bodies, steering and working groups, committees, and integrated process teams in support of Air Force Innovation activities. This includes supporting processes (e.g., Warfighter Rapid Acquisition Process) designed to facilitate transition of successful innovations to the warfighter, with consideration of sustainment (products, people, and logistics processes) issues.

5.1.5. Monitors the US Joint Forces Command's Joint Experimentation progress and any resulting DOTMLPF recommendations through the Joint Staff approval and Joint Capabilities Integration and Development System process.

5.1.6. Creates processes and procedures that integrate, support, access, and report Air Force Innovation activities and ensure Air Force Innovation investments focus on those activities.

5.1.7. In coordination with HQ USAF/XO and SAF/XC, ensures that air and space power are appropriately and accurately represented for wargames and experimentation purposes and for the deliberate and reasonable assessments of new technologies and employment concepts by developing policies, processes, and management working groups.

5.1.8. In coordination with HQ USAF/XO, maintains oversight of design and conduct of Air Force wargames to explore new doctrine, force structure and employment concepts and participate in wargames conducted by the Joint Chiefs of Staff, Combatant Commanders, and the other Services, when appropriate.

5.1.9. Ensures that specific innovation activity funding is used only for Air Force Innovation activities to the maximum extent practicable.

5.2. Major commands (MAJCOM):

5.2.1. Provides General Officers, Colonels, and/or Action Officers for representation to HQ USAF steering groups and working groups on Air Force Innovation.

5.2.2. Plans and executes experiments, supports and sustains Air Force Battlelabs, participates in the Air Force Innovation initiative selection processes, assists in developing and maintaining inno-

vation plan currency, assists in reviewing Air Force and joint innovation and experimentation concepts, and provides the expertise and capabilities to assist in exploring alternative courses of action and innovation activity execution.

5.2.3. Provides assistance in identifying, evaluating, and selecting emerging technologies for Air Force Innovation activities and the technical, logistical, and program management expertise to support transition of successful initiatives into organizational, doctrinal, training, logistics or acquisition changes.

5.2.4. Identifies appropriate program offices that are the intended recipients of technological innovations and ensures that appropriate Program Objective Memorandum (POM) actions are taken for implementing and sustaining successful Air Force Innovation initiatives.

5.2.5. Ensures that budgeted innovation activity funding is used only for Air Force Innovation activities to the maximum extent practicable.

5.2.6. Works to maintain innovation activity results, reports, and lessons learned as appropriate.

5.2.7. Coordinates all Air Force experimentation activity through the Air Force Command, Control, Intelligence, Surveillance, and Reconnaissance Center [AFC2ISRC/AFEO (Air Force Experimentation Office)].

5.2.8. Determines or assess the military utility of innovation initiatives as necessary to support transition of successful initiatives into organizational, doctrinal, training, logistics or acquisition changes using the Capabilities Based Planning process.

5.2.9. Appropriately and accurately represents air and space power for wargames and experimentation purposes and for the deliberate and reasonable assessments of new technologies and employment concepts by supporting policies, processes, and management working groups.

5.3. The Air Force Doctrine Center provides doctrinal expertise to assess current and future doctrinal implications of Joint and Air Force innovation concepts and initiatives.

5.4. The Air Force Operational Test and Evaluation Center (AFOTEC) supports planning efforts for potential transition of initiatives and to determine/assess the military utility of innovation initiatives as necessary.

5.5. The Air Force Studies and Analyses Agency (AFSAA) assists in designing criteria to identify and assess the merit of innovative and revolutionary operational concepts and advanced technologies and provide analysis support as requested.

6. Compliance with the policies in this directive will consist of: Completed innovation activity written reports; postings to the Air Force Center for Knowledge Sharing Lessons Learned (AFCKSLL) web site (<https://afknowledge.jangle.af.mil/>); inputs to the Innovation Chapters of the Air Force Strategic Plan, Air Force Transformation Flight Plan (AFTFP), and Annual Planning and Programming Guidance (APPG); and the Air Force input to the *Transformation Program Detail*, of the annual Office of Secretary of Defense POM and innovation section of the Defense Planning Guidance (DPG).

MICHAEL W. WYNNE
Secretary of the Air Force

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

Air Force Concept of Operations (CONOPS)

Air Force Transformation Flight Plan (AFTFP), October 29, 2004

Annual Programming and Planning Guidance (APPG)

Capability Review and Risk Assessment Guide (CRRG), June 21, 2002

Defense Planning Guidance (DPG)

AFMAN 37-123, *Management of Records*, (will become AFMAN 33-363)

AFRIMS RDS at https://afrims.amc.af.mil/rds_series.cfm

Abbreviations and Acronyms

ACTD—Advanced Concept Technology Demonstration

AFCKSSL—Air Force Center for Knowledge Sharing Lessons Learned

AFOTEC—Air Force Operational Test and Evaluation Center

AFTFP—Air Force Transformation Flight Plan

APPG—Annual Planning and Programming Guidance

ATD—Advanced Technology Demonstration

DOTMLPF—doctrine, organization, training, materiel, leadership and education, personnel, and facilities

DPG—Defense Planning Guidance

HQ USAF—Headquarters, United States Air Force

HQ USAF/XO—Deputy Chief of Staff, Air and Space Operations

MAJCOM—major command

PGO—Policy, Guidance, and Oversight

POM—Program Objective Memorandum

R&D—Research and Development

SAF/AQ—Assistant Secretary of the Air Force, Acquisition

SAF/XC—Office of the Secretary of the Air Force, Warfighter Integration and Chief Information Office

US—United States

Terms

Air Force Corporate Structure—Embodies the corporate review process for HQ USAF. The primary groups of the Corporate Structure are the Air Force Council, the Air Force Board, the Air Force Group, the fourteen Mission and Mission Support Panels, and Integrated Process Teams. This structure increases management effectiveness and improves cross-functional decision-making by providing a forum in which senior Air Force leadership can apply their collective judgment and experience to major programs, objectives, and issues. This process balances programs among mission areas, between force structure and support, and between readiness and modernization. Only military or Department of Defense civilian personnel assigned to the Air Staff or Office of the Secretary of the Air Force may serve as members of the corporate structure.

Air Force Transformation—A process by which the military achieves and maintains asymmetric advantage through changes in operational concepts, organizational structure, and/or technologies that significantly improve warfighting capabilities or the ability to meet the demands of a changing security environment. The advanced technologies are enablers because of the new capability they yield; innovative and new concepts of operation produce substantial increases in desired military effects; and finally, organizational adaptation institutionalizes these changes and enhances our ability to execute our nation's military strategy.

Advanced Concept Technology Demonstration (ACTD)—A technology transition mechanism; two others are the Advanced Technology Demonstrations (ATD) and experiments. ACTDs permit the early and inexpensive evaluation of mature advanced technology to meet the needs of the warfighter. The evaluation is accomplished by the warfighter to determine the military utility before a commitment is made to proceed with formal acquisition. ACTDs also allow the warfighter to develop and refine operational concepts to take full advantage of the new capability. Upon conclusion, a successful ACTD may leave behind a residual operational capability. After completion of the ACTD, funding must be programmed to support up to 2 years in the field. ACTDs are normally funded by the user. The user must reflect a commitment of the resources to perform these tasks in an Implementation Directive.

Advanced Technology Demonstration (ATD)—One of three technology transition mechanisms; the other two are ACTDs and experiments. ATDs are used to demonstrate the maturity and potential of advanced technologies for enhanced military operational capability or cost effectiveness, and reduce technical risks and uncertainties at the relatively low costs of informal processes. ATDs are funded with Science and Technology Advanced Development funding.

Battlelab—Organization designed to rapidly identify and prove the worth of innovative ideas that improve the ability of the Air Force to execute its core competencies and joint warfighting. The overarching objective is to generate high-payoff initiatives with minimum cost and investment.

Battlelab Initiative—A Battlelab Initiative is a funded Battlelab Innovation Activity; the result of screening processes that explore and assess the potential worth of an innovative concept. Each Battlelab Initiative has a distinct/defined Mission Statement. Initiative execution involves courses of action (COA) ranging from modeling and simulation to field demonstration involving actual employment of forces in operationally representative environments. Most Battlelab Initiatives involve some form of experiment (e.g. modeling and simulation, survey, demonstration).

Concept—A notion or statement of an idea expressing how something might be done or accomplished, that may lead to an accepted procedure.

Exercise—A military maneuver or simulated wartime operation involving planning, preparation, and execution. It is carried out for the purpose of training and evaluation.

Experiment—A technology transition mechanism used to develop and assess concept-based hypotheses to identify and recommend the best value-added solutions for changes to doctrine, organizational structure, training, material, leadership and education, people, and facilities required to achieve significant advances in future joint operational capabilities.

Innovation—The introduction of something new or a new idea, method, or device (Webster's). The process of identifying/inventing and incorporating changes to improve effectiveness and efficiency.

Operational Innovation Activities—Refers to Air Force Battlelab initiatives, Air Force experimentation, Advanced Concept Technology Demonstrations (ACTDs), wargames and Air Force participation in similar Joint and other Service activities conducted at the operational level in this policy directive.

Military Utility—An assessment of the benefits and usability of a concept or tool to aid the accomplishment of the warfighter's mission based on measures that are developed by subject matter experts participating in the development and demonstration of the initiative. These assessments are specific to each initiative as developed by an initiative team. The assessment of military utility is used with an assessment of costs to attain and sustain the subject concept or tool against the cost to attain and sustain comparable military utility to determine military worth.

Policy—A statement of important, high-level direction that guides decisions and actions throughout the Air Force. Policy translates the ideas, goals, or principles contained in the mission, vision, and strategic plan into actionable directives.

Process—The combination of people, equipment, materials, methods, and environment that produce output resulting in a given product or service.

Small Business Innovation Research (Program)—The Air Force SBIR program is designed to stimulate technological innovation, use small business to meet federal research and development (R&D) needs, increase private sector commercialization of innovations derived from federal R&D, and foster and encourage disadvantaged and women-owned businesses to participate in the SBIR program.

Test and Evaluation (T&E)—The act of generating empirical data during the research, development or sustainment of systems, and the creation of information through analysis that is useful to technical personnel and decision makers for reducing design and acquisition risks. The process by which systems are measured against requirements and specifications, and the results analyzed so as to gauge progress and provide feedback.

Validate—To support or corroborate on a sound or authoritative basis.

Wargame—A simulation, by whatever means, of a military operation involving two or more opposing forces, using rules, data, and procedures designed to depict an actual or assumed real-life situation.