



ACQUISITION,  
TECHNOLOGY  
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3000

**MAY 24 2010**

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
ATTN: SERVICE ACQUISITION EXECUTIVES  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
ATTN: COMMANDER, U.S. SPECIAL OPERATIONS  
COMMAND  
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Fundamental Research

References: (a) DoD Directive 5230.24, "Distribution Statements on Technical Documents," March 18, 1987  
(b) DoD Instruction 5230.27, "Presentation of DoD-Related Scientific and Technical Papers at Meetings," October 6, 1987

The Department of Defense (DoD) fully supports free scientific exchanges and dissemination of research results to the maximum extent possible. Critical to enabling exchanges and dissemination is an understanding on the part of DoD acquisition personnel and the research community of the statutes, regulations, and policies governing restrictions that apply to the DoD on basic and applied research, recognizing the necessarily open nature of unclassified fundamental research. Understanding will help guide DoD acquisition personnel and contract and grant recipients in making plans and decisions that will affect performance of research under DoD awards and implementing measures that may be needed to comply with appropriate controls.

I have determined that additional clarifying guidance is required to ensure the DoD will not restrict disclosure of the results of fundamental research, as herein defined, unless such research efforts are classified for reasons of national security or as otherwise required by applicable federal statutes, regulations, or executive orders. This memorandum reinforces earlier guidance (Attachment A), addresses residual issues, and deals explicitly with additional facets of fundamental research. My intention is to ensure that the DoD grants, contracts, and negotiations with the research community for fundamental research are consistent across Components and fully compliant with National Security Decision Directive (NSDD) 189 (Attachment B).

NSDD 189 established the national policy for controlling the flow of scientific, technical, and engineering information produced in federally funded fundamental research at colleges, universities, and laboratories. The Directive defines fundamental research as follows:

"'Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons."

NSDD 189 makes clear that the products of fundamental research are to remain unrestricted to the maximum extent possible. When control is necessary for national security reasons, classification is the only appropriate mechanism. The DoD will place no other restrictions on the conduct or reporting of unclassified fundamental research, except as otherwise required by applicable federal statutes, regulations, or executive orders.

The definition of “contracted fundamental research” in a DoD grant or contractual context is established by References (a) and (b) and is defined as follows:

“‘Contracted Fundamental Research’ includes research performed under grants and contracts that are (a) funded by budget Category 6.1 (“Research”), whether performed by universities or industry or (b) funded by budget Category 6.2 (“Exploratory Development”) and performed on-campus at a university. The research shall not be considered fundamental in those rare and exceptional circumstances where the 6.2-funded effort presents a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense, and where agreement on restrictions have been recorded in the contract or grant.”

The terms “budget category 6.1” (“Research”) and “budget category 6.2” (“Exploratory Development”) have been replaced by Research, Development, Test, and Evaluation Budget Activity 1 (Basic Research) and 2 (Applied Research). With this clarification, these references continue to define national and DoD policy on the transfer of the products of contracted fundamental research. This means that DoD awards for the performance of contracted fundamental research should not involve classified items, information, or technology other than in exceptional circumstances. Furthermore, unclassified contracted fundamental research awards should not be structured, managed or executed in such a manner that they become subject to controls under U.S. statutes and regulations, including U.S. export control laws and regulations. The performance of contracted fundamental research also should not be managed in a way that it becomes subject to restrictions on the involvement of foreign researchers or publication restrictions. There may be exceptional cases in which these guidelines should not be applied, but I believe that such cases will be extremely rare and that exceptions should be made only with the approval of high-level Component management.

I recognize there will be compelling reasons for DoD to place controls on some research that is performed on campus at a university, but such occasions should be rare and each must be carefully scrutinized. I direct the addressees, without further delegation, to review and concur that the controlling decisions are required by applicable federal statutes, regulations, or executive orders.

There will be circumstances in which the DoD Components may find it valuable to perform research with other Budget Activity funds (e.g., Budget Activity 3 and higher) without placing restrictions on publications or personnel. This should be within the discretion of acquisition personnel in consultation with contracting officers, Component management, counsel, and the cognizant Comptroller to ensure consistency with financial management regulations. In addition, the DoD must not place restrictions on subcontracted unclassified research that has been scoped, negotiated, and determined to be fundamental research within the definition of NSDD 189 according to the prime contractor and research

performer and certified by the contracting component, except as provided in applicable federal statutes, regulations, or executive orders. Provisions shall be made to accommodate such subcontracts for fundamental research and to ensure DoD restrictions on the prime contract do not flow down to the performer(s) of such research.

The effective implementation of this guidance requires all DoD personnel involved in the acquisition and monitoring of fundamental research have a clear and common understanding of the relevant statutes, regulations, and policies, including the definitions of key terms. Freedom from inapplicable and inappropriate restrictions is most likely to be achieved and maintained when contracts and grants for fundamental research require performance of work that is clearly understood at the outset to be fundamental research.

It is critical that program managers identify any fundamental research effort prior to issuance of solicitations and subsequent award of contracts or grants for fundamental research. This will enable contracting and grants officers to use solicitation provisions and clauses applicable only to fundamental research. Solicitations, including Broad Agency Announcements, should indicate that such research is expected to be fundamental in nature as defined in NSDD 189. Any other restrictions on publication of fundamental research findings, security review procedures, and other required actions must be explicitly included in contract clauses or grant terms and conditions, and such inclusions must be fully consistent with the restrictions contained in the corresponding solicitation. Program managers and performers must monitor the performance of contracts and grants for fundamental research so that appropriate action may be taken if the character of such research changes.

I direct this memorandum be broadly distributed within your organizations to personnel in program management, contracting, security, and other appropriate offices that deal with grants and contracts. I also direct that discussion and clarification of the policies and guidance documents associated with contracted fundamental research be included in general training modules for research program personnel. Each addressee of this memorandum must report back to me in writing by June 30 on the detailed plans of incorporating this policy into broad training of all relevant personnel and on plans for implementing and monitoring compliance within your Component.

I have delegated DoD monitoring of compliance with this policy to DDR&E. My point of contact is Dr. Robin Staffin, Director for Basic Science, at 703-588-1472.



Ashton B. Carter

Attachments:  
As stated

cc:  
Director, Defense Contract Audit Agency  
Director, Defense Contract Management Agency



ACQUISITION,  
TECHNOLOGY  
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

26 JUN 2008

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
ATTN: SERVICE ACQUISITION EXECUTIVES  
CHAIRMAN, JOINT CHIEFS OF STAFF  
ATTN: COMMANDER, U.S. SPECIAL OPERATIONS  
COMMAND  
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Contracted Fundamental Research

- References: (a) National Security Decision Directive (NSDD) 189, National Policy on the Transfer of Scientific, Technical, and Engineering Information, September 21, 1985 (copy attached)  
(b) DoD Directive 5230.24, Distribution Statements on Technical Documents, March 18, 1987  
(c) DoD Instruction 5230.27, Presentation of DoD-Related Scientific and Technical Papers at Meetings, October 6, 1987

The Department of Defense (DoD) fully supports free scientific exchanges and dissemination of research results to the maximum extent possible. Critical to enabling exchanges and dissemination is an understanding on the part of DoD program managers, potential grantees, and contractors of the policies governing restrictions that may be imposed by the DoD on basic and applied research. Understanding will help guide DoD program managers, and contract and grant recipients, in making plans and decisions that will affect performance of research under DoD awards and implementing measures that may be needed to comply with security controls.

I have determined that clarifying guidance is required to ensure that the DoD will not restrict disclosure of the results of contracted fundamental research, as herein defined, unless the research is classified for reasons of national security, or as otherwise required by statute, regulation, or Executive Order.

Reference (a) established the national policy for controlling the flow of scientific, technical, and engineering information produced in federally funded fundamental research at colleges, universities, and laboratories. Reference (a) defines fundamental research as follows:



“‘Fundamental research’ means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.”

The policy makes clear that the products of fundamental research are to remain unrestricted to the maximum extent possible. When control is necessary for national security reasons, classification is the only appropriate mechanism. The DoD will place no other restrictions on the conduct or reporting of unclassified fundamental research, except as otherwise required by statute, regulation, or Executive Order.

The definition of “contracted fundamental research,” or fundamental research in a DoD contractual context, was established by References (b) and (c). The definition is:

“Contracted Fundamental Research. Includes [research performed under] grants and contracts that are (a) funded by budget Category 6.1 (“Research”), whether performed by universities or industry or (b) funded by budget Category 6.2 (“Exploratory Development”) and performed on-campus at a university. The research shall not be considered fundamental in those rare and exceptional circumstances where the 6.2-funded effort presents a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense, and where agreement on restrictions have been recorded in the contract or grant.”

The terms “budget category 6.1” (“Research”) and “budget category 6.2” (“Exploratory Development”) have been replaced by Research, Development, Test, and Evaluation Budget Activity 1 (Basic Research) and 2 (Applied Research). With this clarification, these references continue to define national and DoD policy on the transfer of the products of contracted fundamental research. This means that DoD awards for the performance of fundamental research should, with rare exceptions, not involve classified items, information, or technology. Nor, with rare exceptions, should an award be managed or executed in such a manner that it becomes subject to controls under U.S. statutes, including export control. The performance of fundamental research, again with rare exceptions, should not be managed in a way that it becomes subject to restrictions on the involvement of foreign researchers or, publication restrictions.

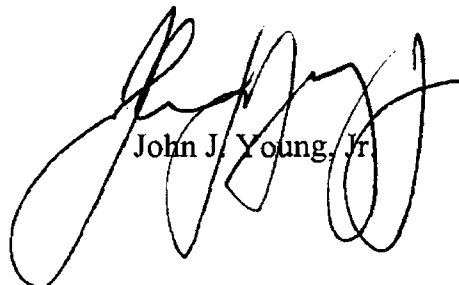
I recognize that there will be compelling reasons for DoD to place controls on some applied research that is performed on campus at a university, but such occasions should be rare and each must be carefully scrutinized. I direct the addressees, without further delegation, to review and concur that the decisions of their subordinates in these exceptional circumstances are required by statute, regulation, or an Executive Order.

The effective implementation of this guidance requires that all DoD personnel involved in the acquisition and monitoring of contracted fundamental research have a clear and common understanding of the relevant statutes, regulations, and policies, including the definitions of key terms. Freedom from restrictions is most likely to be achieved and maintained when contracts and grants for fundamental research require performance of work that is clearly and only fundamental research.

It is critical for the smooth and efficient acquisition of fundamental research that requiring activities or program managers determine, prior to issuance of solicitations and award of contracts or grants, whether the work required is expected to be only fundamental research. This will enable contracting and grants officers to use solicitation provisions and clauses suitable for award instruments involving only fundamental research. Requiring activities or program managers must regularly monitor the performance of contracts and grants for fundamental research so that appropriate action may be taken if the character of the research changes.

Solicitations, including Broad Agency Announcements, should indicate whether performance of research resulting from that solicitation is or is not expected to be fundamental. Restrictions on publication, security review procedures, and other required actions must be explicitly included in contract clauses or grant terms and conditions. Any such inclusions must be fully consistent with the corresponding solicitation.

I direct that this memorandum be broadly distributed within your organizations to personnel in program management, contracting, security, and grants organizations, and other appropriate organizations. I also direct that discussion and clarification of the policies and guidance documents associated with contracted fundamental research be included in general training modules for research program personnel. Each addressee of this memorandum must report back to me in writing, by July 15, on the detailed plans of incorporating this policy into broad training of all relevant personnel. I have delegated ongoing monitoring of compliance with this policy to the DUSD (LABS). My point of contact there is Dr. Robin Staffin, Director of Basic Research, at 703-588-1383.



John J. Young, Jr.

Attachment:  
As stated

cc:  
Director, Defense Contract Audit Agency  
Director, Defense Contract Management Agency

**THE WHITE HOUSE**

WASHINGTON

September 21, 1985

NATIONAL SECURITY DECISION

*DIRECTIVE 189*

NATIONAL POLICY ON THE TRANSFER OF SCIENTIFIC, TECHNICAL AND  
ENGINEERING INFORMATION

I. PURPOSE

This directive establishes national policy for controlling the flow of science, technology and engineering information produced in federally funded fundamental research at colleges, universities, and laboratories. Fundamental research is defined as follows:

"Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons."

II. BACKGROUND

The acquisition of advanced technology from the United States by the Eastern Bloc nations for the purpose of enhancing their military capabilities poses a significant threat to our national security. Intelligence studies indicate a small but significant target of the Eastern Bloc intelligence gathering effort is science and engineering research performed at universities and federal laboratories. At the same time, our leadership position in science and technology is an essential element in our economic and physical security. The strength of American science requires a research environment conducive to creativity, an environment in which the free exchange of ideas is a vital component.

In 1982, the Department of Defense and National Science Foundation sponsored a National Academy of Sciences study of the need for controls on scientific information. This study was chaired by Dr. Dale Corson, President Emeritus of Cornell University. It concluded that, while there has been a significant transfer of U.S. technology to the Soviet Union, the transfer has occurred through many routes with universities and open scientific communication of fundamental research being a minor contributor. Yet as the emerging government-university-industry partnership in research activities continues to grow, a more significant problem may well develop.

### III. POLICY

It is the policy of this Administration that, to the maximum extent possible, the products of fundamental research remain unrestricted. It is also the policy of this Administration that, where the national security requires control, the mechanism for control of information generated during federally funded fundamental research in science, technology and engineering at colleges, universities and laboratories is classification. Each federal government agency is responsible for: a) determining whether classification is appropriate prior to the award of a research grant, contract, or cooperative agreement and, if so, controlling the research results through standard classification procedures; b) periodically reviewing all research grants, contracts or cooperative agreements for potential classification. No restriction may be placed upon the conduct or reporting of federally funded fundamental research that has not received national security classification, except as provided in applicable U.S. Statutes.