Tab H

Include Computer Software

RIGHTS IN TECHNICAL DATA

Background

"Technical data" are recorded information of a scientific or technical nature that pertain to a product or service. The term does not include data incidental to contract administration such as financial or management data. Some technical data are very sensitive, other data are not.

Government agencies acquire many kinds of technical data in order to carry out their missions. For example, they may use the data to obtain more competition among suppliers, to ensure logistical support, or to publish the results of research efforts.

However, when agencies acquire the rights to technical data that exceed their needs, contractors may lose the incentive to develop Government funded technologies for commercial purposes. If these data are made available to all, then there may be no advantage to any one contractor in trying to exploit commercially the research results.

A major complaint of the Packard Commission was that the Government overreacted to reports in 1983-84 regarding excessive prices paid for some items by requiring contractors to deliver technical data to the Government even when no specific need for the data existed.

In addition, industry has complained that the Government through its leverage as the major or only buyer of a product has forced contractors and subcontractors to give up their proprietary interests in technical data even when the data were developed entirely at private expense. In addition, industry has complained that government agencies have inconsistent policies and practices as to the acquisition of technical data.

Efforts To Revise Government Technical Data Policy

Both Congress and the Administration have recently taken steps to develop a more uniform approach to the acquisition of technical data -- an approach more consistent with the President's Memorandum on Patent Policy issued on February 18, 1983; and are more conducive to commercializing research results. The patent policy memorandum encourages agencies to promote the utilization of inventions arising from federally-supported research and development efforts and generally allows firms to retain title to inventions to use them for commercial purposes, as long as the Government can retain a license to use the inventions as well.

The President's January 27, 1987 Competitiveness Initiative directs the Department of Defense (DoD) to accelerate its efforts to promote the commercial use of technologies developed under DOD contract. The Initiative states that the Administration will implement a policy to help commercialize non-patentable results of Federally-funded research by permitting Federal contractors to own software, engineering drawings, and other technical data generated by Federal contracts in exchange for royalty-free use by the Government.

Along similar lines, Executive Order 12591 of April 10, 1987 reads, "Under policy guidance provided by the Office of Federal Procurement Policy, each department shall cooperate with the heads of other affected departments in the development of a uniform policy permitting Federal contractors to retain rights to software, engineering drawings, and other technical data developed under contracts in exchange for royalty-free use by or on behalf of the Government."

Finally, amendments offered by Senator Dixon of Illinois and enacted in the 1988 Defense Authorization Bill, attempt to protect contractors' proprietary rights by requiring that regulations be written to increase the Government's protection of technologies developed using private contractor resources. Rather than the Government's simply demanding technical data developed under a Federal contract (even if only partially funded by the Government), this law provides that this issue should be negotiated between the parties.

The attached describes some of the commercial benefits resulting from Federally-funded research and development.

Some Benefits Of The Commercialization of Federally-Funded R & D

The Federal Government will spend over $50 billion for research and development (R&D) in FY 1987, slightly less than 50 percent of the total national R&D investment.

Innovation, invention and technical change are the driving forces of economic growth and hence employment and earnings growth. In addition, to the extent that the technical changes reduce production costs, our ability to compete effectively in commercial and military markets with foreign firms will be considerably enhanced.

A critical factor in sustaining our living standards and level of employment is our ability to advance from basic research to commercial innovation and development more rapidly than we have in the past. We must also make more effective and efficient use of our research base, including the research funded directly and indirectly by the Federal government.

Federally-funded R&D also encourages privately-funded R&D. In about one-third of the cases studied, firms invested their private funds in projects identified during the performance of Federally-funded R&D projects. The likelihood of such spin-offs was found to be enhanced considerably if the firm helped to formulate the ideas on which the project was based. (National Bureau of Economic Research, 1984)

Examples Of Successful Transfers Of Federally-Supported Technology

- NASA technology that was developed to send and receive coded instructions and information from unmanned satellites has been transformed into a medical device, the programmable cardiac pacemaker, that allows a physician to reprogram the pacemaker without surgery. This not only reduces risk to the patient, but allows for optimum use of the device based on changes in physical condition.

- NASA "metallization" technology, which involves coating of materials with a superfine mist of vaporized metal to create a foil-like effect, used initially in satellites is now widely used in the manufacture of emergency blankets.

- NASA aerodynamic computer analysis and simulation techniques were applied to the design of the 12-meter yacht "Stars and Stripes" that won the America's Cup.

- DOE materials research developed a new class of "intermetallic compounds," which are part metal, part ceramic; these are now being used by the American machine tool industry to make machine tool bits that are superior to foreign-made bits. This same material will soon be appearing in heating elements in appliances to make them last longer.

- DOE research led to a new way to remove nitrous oxides from diesel and other exhausts. A new company has been formed to exploit applications of this technology.

- DOE research to develop isolation techniques for nuclear waste burial sites has resulted in a method to incorporate controlled-release herbicides into materials used for a variety of underground construction needs. The materials effectively limit root growth in a localized area without killing the tree or plant.

- In 1979, the Assistant Chief of Naval Research for Patents and Patent Counsel for the Navy estimated that no more than one out of five inventions in the Navy's portfolio of patents were devices applicable solely to military use. Government-financed research and development has applications in the fields of medicine, chemistry, communications, transportation, energy, environmental control, safety, conservation and metallurgy. For example, using Federally-funded techniques, companies have developed for commercial use: blood pressure monitors, gasoline additives, underwater adhesives, oil spill recovery techniques, noise suppressors, waste processing and air passenger safety.

Status

Both the Department of Defense regulatory council and the Civilian Agency regulatory council have recently published regulations on technical data. Although the Defense Department regulation comes closer than the other to encouraging contractors to retain some rights in data, neither implements policies that are fully consistent with the Packard recommendations, recent Presidential policy documents, or with the 1988 Defense Authorization Bill.

OFPP, working with OIRA, has recently approved these rules under the Paperwork Reduction Act, but only for a limited period (until March 1988). Moreover, we tasked the regulatory councils to provide by that time a set of government-wide regulations, consistent with the policy documents described earlier.

We have been working with NASA, the Department of Defense and the Department of Energy to develop a draft policy document (Tab 2) that will provide the blueprint for the regulatory changes necessary to meet the President's policies. Main provisions of of the document are as follows:

- The Government's acquisition of technical data developed using Government funds should be limited when other available options will permit the agency to meet its needs without damaging the commercial value of the data.

- If technical data that are developed at private expense are to be used in the performance of a contract, the contractor should be required to declare that such data will be used and specifically identify those data before the contract agreement is completed.

- As part of the evaluation of responses to a contract solicitation, the Government should consider the full costs of the item over its service life, including the costs of reprocuring the item or any parts of such item.

- Technical data developed at private expense should be required in a contract only when such data are necessary for emergency use, installation, maintenance, overhaul, or repair of an item or for national security reasons.

  In other cases, the Government may negotiate to obtain such data only when other options that provide the least damage to the commercial use of the data will not meet the agency's needs.

- When the development of an item or process is wholly or partially funded by the Government, a contract that requires delivery of the technical data should specify that the Government will have royalty-free use of such data. However, the contractor will be able to retain commercial rights to data that do not need to be publicly disclosed to meet the agency's objectives.

Draft Technical Data Policy

I. SUMMARY

Consistent with law, the President's February 18, 1983 Memorandum on Patents and the Executive Order 12591, "Facilitating Access to Science and Technology," the Government in order to encourage technological development must protect technology developed at private expense and promote the commercial application of federally funded research by permitting all contractors regardless of size to retain the rights to technical data developed under Government contract, in exchange for royalty-free use of such data by or on behalf of the Government.

The Government's policy regarding technical data rights is summarized as follows:

(1) Rights in technical data belong to the contractor when the items, components, or processes are developed at private expense.

(2) Unless otherwise required by statute and specified in a solicitation, the Government must negotiate and enter into a contract to acquire technical data relating to items, components, or processes developed at private expense.

(3) Unless otherwise required by statute and specified in a solicitation, a contractor may not be required to provide, sell, or otherwise relinquish rights in technical data pertaining to an item, component, or process developed at private expense as a condition of being responsive to a solicitation or as a condition for the award or performance of a contract.

(4) When the development of an item, component, or process is wholly or partially funded by the Government, a contract that requires delivery of technical data relating to that item, component or process should specify that:

(i) The Government will have royalty-free use of such technical data by or on behalf of the Government;

(ii) The contractor will be permitted to retain exclusive commercial rights to such technical data that do not have to be publicly disclosed to meet the agency's specifically identified needs.

(5) The Government shall, in a timely manner, identify its technical data needs and acquire and use technical data

to meet its specified needs in a way that is least damaging to the contractor's identified property and economic interests.

This policy is not intended to impair any right of the United States or any contractor with respect to patents or copyrights or any other right in technical data otherwise established by law.

II. GENERAL INTENT

It is necessary for Government agencies, in order to carry out their missions and programs, to acquire or obtain through contracts access to many kinds of technical data. Government agencies may need technical data in order to obtain competition among suppliers; meet acquisition needs; ensure logistical support; fulfill certain responsibilities for disseminating and publishing the results of research, development, and demonstration activities; fulfill international agreements; and meet other programmatic and statutory requirements. These needs sometimes may exceed the needs of commercial customers.

Government support of science and technology is necessary for a strong defense, for effective and efficient Federal procurement of goods and services, for the international competitiveness of domestic industry, for the health and well-being of the U.S. citizens, and for a healthy U.S. economy. The Government must also in appropriate cases ensure that the best technologies are readily available and encourage its contractors to use private initiative and private resources to satisfy Government needs. This is particularly true in the case of innovative contractors who, if their rights in technical data are scrupulously protected, can be encouraged to develop at private expense items, components, or processes that may be useful to the Government.

The general public and government contractors have substantial and respective interests in technical data resulting from Government contracts and from private investment. The public uses technical data for research and development of commercial products, basic research, and publications that disseminate new ideas to interested parties. As a result, the public has a substantial interest and investment in the effective and efficient use of technical data developed under Government funded contracts. On the other hand, a contractor has an interest in protecting its privately developed technical data from unauthorized use, duplication, or disclosure to avoid compromise of economic interests and property rights that could jeopardize its commercial position and impair the Government's ability to meet its needs in the most cost-effective manner possible.

Finally, acquistion, maintenance, and handling of technical data

in the vast quantities generated by modern technology is costly and burdensome to the Government and industry alike. Further, when the Government acquires rights in technical data or technical data containing commercially valuable information that is proprietary to a contractor, it assumes an obligation to protect such technical data from unauthorized use and disclosure. For these reasons alone, the Government must effectively control the extent and nature of its acquisition of technical data.

Thus, this Federal policy and its implementing regulations regarding the acquisition of technical data and rights in technical data must strike a balance among sometimes competing interests. The objectives of the Federal Government's policy regarding technical data are to:

(i) Ensure that agencies in a timely manner identify and acquire only such technical data and rights in such data as are needed to fulfill their missions and that they do so in a manner that is the least obtrusive to the contractor's economic and property interests;

(ii) Encourage contractors to commercialize technologies developed under Government contracts;

(iii) Encourage private research and development activities and the use of the best technologies by recognizing rights in technical data developed at private expense and protecting such data;

(iv) Encourage broad participation by qualified contractors in Government programs;

(v) Ensure cost-effective Government procurements by recognizing the full long term cost of these actions;

(vi) Enable agencies to provide for the appropriate dissemination and use of technical data to which the Government has royalty-free use.

III. RIGHTS IN TECHNICAL DATA

Data Developed at Private Expense

Unless otherwise required by statute and specified in a solicitation, the Government must negotiate and enter into a contract to acquire technical data relating to an item, component, or process developed at private expense. Unless otherwise permitted by statute and specified in a solicitation, a contractor may not be required by the Government to provide, sell, or relinquish technical data or rights in such technical data as a condition of being responsive to a solicitation or as a condition for the award or performance of a contract.

A contractor who develops technical data and documents that the data were developed at private expense will have full rights in those data. When privately developed data are to be used in a Government contract, the contractor must declare the use of privately developed data before the contract agreement is completed. The Government may challenge in a timely manner the rights in technical data asserted by the owner(s) of the data. As part of this challenge, the Government will provide to the owner(s) specific written evidence of reasonable doubt as to the current validity of any assertion that the technical data were developed at private expense.

When the delivery of technical data pertaining to an item, component, or process developed at private expense is necessary, the agency shall include as an express contract provision any limitations or restrictions on the Government's right to disclose the technical data outside the Government so as not to compromise a contractor's property rights or economic interests in the data. Where the Government would be permitted by statute to disclose or distribute technical data developed at private expense, the agency should specifically identify such data and the corresponding disclosure or distribution requirements in any solicitation and any subsequent contract with the owner(s) of the technical data [or its designated representative].

Data Developed with Government Funds

When the development of an item, component, or process is wholly or partially funded by the Government, a contract that requires delivery of the technical data relating to the item, component or process should specify that:

(i) the Government will have royalty-free use of such technical data by or on behalf of the Government, and

(ii) the contractor will be permitted to retain

exclusive commercial rights to such technical data that need not be publicly disclosed in order to meet the agency's specifically identified objectives.

Unless prohibited by statute or for national security reasons, an agency should allow the contractor to retain exclusive commercial rights in the technical data required to be delivered that need not be disclosed publicly to meet the specific needs identified by the agency.

Where an agency would be required by statute to disclose or disseminate technical data, the agency should not impose limitations or restrictions on the contractor's right to also use the technical data for its own commercial purposes (unless specifically prohibited from doing so by statute or for national security reasons).

This should be accomplished by: (1) permitting contractors to establish exclusive commercial rights to technical data developed under the contract, and (2) limiting the Government's rights to publish or distribute the data. The agency should identify as a specific contract item such technical data developed under Government contract that the contractor may use exclusively for commercial purposes. This should be completed during the research and development phase of the contract under which the technical data are developed. In all cases the agency should strive to obtain the necessary technical data to meet its program needs in a manner that is least likely to damage the contractor's economic interests. The agency should defer delivery of the technical data until the need is clearly defined.

The contractor's exclusive commercial rights may be made subject as a specific contract item to reasonable time limitations to ensure that the technical data are not suppressed or abandoned and that other interested parties have the opportunity to use the technical data for commercial purposes. The limitations in the Government should be determined in part by the contractor's contribution to the development of the technical data as well as an assessment of the potential net social benefits that may be provided by an expansion of commercial opportunities to other parties.

Where appropriate, based on the contractor's contribution, the agencies may negotiate as part of the contract for development of the technical data any royalty payments or recoupment to the Government based on commercial sales of the item, component, or process to which the technical data pertain.

SPECIFIC CONFLICT WITH SOME TECHNICAL DATA DEVELOPED UNDER

IV. RIGHTS IN COMPUTER SOFTWARE

The same basic policies set forth in Section III with respect to technical data also apply to computer software.

Because, however, computer software is also an end item deliverable in itself, particular care should be taken in specifying agency needs for computer software and documentation and assuring that the software is to be furnished, with attendant rights regarding its use and disclosure, so that agency's program objectives can be achieved.

Prior to contract, the agency to maximum extent possible should identify and acquire any computer software developed at private expense that may be needed to fulfill contractual requirements. Wherever practical, to ensure adequate access to software documentation and tools, the agency should secure rights by either entering into escrow agreements with the contractor(s) or negotiating rights that would allow for competitive maintenance and enhancement of the software. The agency, to the extent possible, should limit the Government's rights in computer software to a license for a specific application or site(s) and thereby achieve a cost-effective procurment.

In addition, in recognition of standard commercial practices in contracting for computer software, agencies in all cases should agree in the contract to restrict the use and disclosure to specified sites, locations, or designated computers within the Government or those acting on behalf of the Government. Where agency program needs would require a more expanded use and disclosure, such requirements should be specifically identified in the contract and fair and reasonable compensation should be provided as appropriate to the owner(s) for such uses.

V. GOVERNMENT PROCUREMENT OF TECHNICAL DATA

One of the major objectives of this policy is to ensure that the Government procurement is cost-effective, i.e., that the Government can meet the specified performance requirements of each procurement at the lowest long term cost. To ensure competitive procurements, the Government sometimes must negotiate to acquire and provide technical data pertaining to an item, component, or process to its potential contractors. However, a decision to negotiate to acquire technical data, although it may

in some cases enhance competition, will not always result in cost-effective procurements when considering the full long term costs to the Government. Furthermore, the acquisition of technical data may also unnecessarily destroy the property and economic interests of the contractor and stifle the development of new products for the commercial and government markets.

Before negotiating to acquire technical data, an agency should assess whether the expected savings from reprocurement using the technical data relating to an item, component, or process are likely to exceed the full costs of acquiring such data, including additional costs to the Government, or the costs of other alternatives that will meet the specified performance objectives. When the expected costs of acquisition of technical data exceed the costs of other available alternatives, the agency should not acquire the technical data from its contractor.

To ensure cost-effective procurement and satisfy the other objectives of this policy, an agency, unless otherwise required by statute, should not acquire technical data if:

(i) the need to reprocure the item, component, or process relating to the technical data is not clearly identified;

(ii) the item, component, or process is sold in significant quantities in the commercial market;

(iii) the technical data are not essential for the production of an item, or component or the use of a process;

(iv) a commercially available or a readily introducable alternative will meet the specified performance objectives;

(v) performance specifications or samples of the original item or component or demonstrations of the process will provide sufficient information to potential contractors; or

(vi) the contractor developing the technical data can establish the necessary competitive sources of supply, such as through direct licensing or nondisclosure agreements.

When the acquisition of technical data is necessary, the agency may negotiate to acquire and use the technical data to meet its specific performance needs in a manner that is least damaging to the owner(s) identified property rights and economic interests.

If the agency needs rights in technical data relating to an item, component, or process developed at private expense for reprocurement or for further research and development, then it may negotiate to acquire such rights from the owner(s) of the technical data [or its designated representative] as a separate contract in a manner that is least obtrusive to the owner(s) of the data.

To ensure effective and efficient production, operation, or reprocurement, the Government should identify and negotiate to acquire as early as possible in the procurement process such rights in technical data as will be necessary for initial and subsequent production of an item or component, or for subsequent development of an item, component, or process. In evaluating responses to its proposals, the Government should consider the full costs of procuring the item or component over the life of the system.

When the development of an item, component, or process was funded wholly or partially by the Government , the agency may also negotiate with the developing contractor to enter into any agreements necessary for future competitive production or reprocurement needs. These agreements should be completed during the research and development phase of the contract under which the technical data are developed and may include at the request of any licensee the right to purchase technical assistance. Payment should be provided to the contractor in accordance with the costs of maintaining and providing such services as well as the contractor's contribution to the development of the technical data. The Government may also stipulate that the developing contractor's exclusive commercial rights may be terminated if that contractor fails to implement contractual agreements to provide technical data to designated contractors as specified in the agreements.

Through their contracts with the Government, prime contractors will be responsible for flowing down to its subcontractors the appropriate provisions of this policy. Prime contractors and higher-tier subcontractors shall not use their power to award subcontracts as economic leverage to acquire rights in the technical data of their subcontractors for their own use or the use of the Government unless otherwise authorized by this policy. Accordingly, the owner(s) of the technical data may furnish rights in technical data directly to the Government rather than through the prime contractor.

VI. DEFINITIONS

"Contract" means contract and subcontract.

"Contractor" means prime contractor and subcontractor.

"Computer program" means a series of instructions or statements in a form acceptable to a computer that are designed to cause the computer to execute operation(s), including operating systems, assemblers, compilers, interpreters, data management systems, utility programs, sort-merge programs, applications programs, maintenance/diagnostic programs, and the like.

"Computer Software" means computer programs and software documentation and manuals.

"Technical Data Developed at Private Expense":

> The term "developed" in the phrase "technical data developed at private expense" means that the item, component, or process to which the technical data pertain: (1) exists, and (2) is workable or has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable art that it has a reasonable probability of working generally as intended; in order to be developed the item, component, or process does not have to be offered for sale or reduced to practice.
>
> The term "private expense" in the phrase "technical data developed at private expense" means that the cost of development of the item, component, or process in which the technical data are embodied has not been paid in whole or in part by the Government and that such development was not required as an element of performance under a Government contract. Government sponsored independent research and development and bid and proposal costs and payments to the contractor for indirect costs incurred under a Government contract are not considered Government funds.

"Exclusive Commercial [illegible]s" means the exclusive right to use, disclose, distribute, [illegible]ense, or sell in any manner for commercial purposes or to permit or enjoin others from doing the same; commercial purposes includes use of the technical data for development of items, components, or processes for the private market [illegible] use the technical data for private development of [illegible]ems, components, or processes for Government use.

"Technical Data" [illegible] recorded information of a scientific or

technical nature, regardless of the form or method of recording. The term does not include computer software or data incidental to contract administration [such as financial or management information].

"In a timely manner" means as soon as practical but no later than one year after the contract has been formally agreed to by the relevant parties.

10/2/87

Record Version

Statement by

Dr. Robert C. Duncan
Director
Defense Advanced Research Projects Agency

Before the

House Committee on Science, Space, and Technology
Subcommittee on Transportation, Aviation and Materials
Subcommittee on Science, Research and Technology

First Session, 100th Congress

October 7, 1987

Pg. 3
important
sentence

not for publication
until released by the
House Science, Space
and Technology Committee

(1)

Mr. Chairman and members of the Committee, I appreciate the opportunity to testify on the Defense Advanced Research Projects Agency's support for research on high temperature ceramic superconductors.

The discovery of high temperature superconductors was an exciting unexpected scientific breakthrough. DARPA is charged with pursuing high risk, high impact research programs so as to avoid technological surprise for the Nation. Accomplishing the Agency's mission requires quick reaction to major technological events, and the discovery of these new materials is just such an event.

DARPA is in a particularly strong position to move rapidly because we currently support a vigorous program in ceramics technology, with a concentration in manufacturing technology for advanced ceramics. We fund a cadre of highly skilled and creative ceramics researchers in universities, companies, and Government laboratories, and we have outstanding research managers in DARPA's Materials Science Division. Much of our past and current research is applicable to the processing and fabrication of these new materials. Incidentally, most of the new manufacturing techniques we will develop for the high temperature superconductors also will apply to other ceramics, bringing a new level of sophisticated technology to that important industry.

The DARPA program will develop, as quickly as possible, the manufacturing technology to support an industrial base for processing, fabrication and production of the new materials, components and systems. While our motivation is primarily to assure a domestic source of supply of the high temperature superconductors for Defense, we expect there will be significant commercial spin-offs from our investment. In fact, for the next few years the technology base largely will be dual use, supporting both national security and economic strength. We are particularly concerned that the manufacturing technology we develop support both large scale and small scale production, and that it provide a cost effective base for defense manufacturing.

Today I want to tell you about the ten research projects we have initiated since the discovery of the new materials; our current major research solicitation with the Office of Naval Research; and, our coordination with other parts of the Government.

Over the last few months we have begun ten new research projects on high temperature ceramic superconductors, in addition to redirecting a number of our existing contractors to work in this exciting area. We began efforts at four universities - Pennsylvania State University, M.I.T., the University of California at Santa Barbara, and Stanford - exploring production

techniques such as compositing the brittle ceramics to provide greater toughness, sol gel synthesis, thin film molecular beam epitaxy (MBE) and electrochemical deposition. We began work at General Electric, Rockwell and a small business, Ceramics Processing Systems, on the production of composite wires and on magnetron sputtering to produce thin films. Within the government we have funded research programs at the Naval Research Laboratory (NRL) and the National Bureau of Standards on materials, processing, characterization and measurement, and at the Argonne National Laboratory on the production of tapes and tape composites. While these efforts are still new, we have already made a good deal of progress, particularly in the development of composite techniques.

The main body of our research program will stem from a major research solicitation we are executing with the Office of Naval Research. Two months ago we received 203 proposals requesting about $330M over three years to develop manufacturing technology for the high temperature superconductors. These proposals were submitted by teams from 120 companies, 60 universities and 12 not-for-profit or Government laboratories - these numbers don't "add up" since some organizations submitted multiple proposals. Seventy nine (79) of the proposals were concerned with production of bulk materials for components such as magnets and motors; 87 aimed at thin films for components such as microelectronics circuits; 21 were for thick films and coatings, for applications such as magnetic shielding; 32 were for combinations of the above; and 4 were for theoretical studies or data bases. The proposals came from 35 states and the District of Columbia. Sixty eight percent (68%) of the proposals from industry were from small businesses, and 53% were from organizations that traditionally have not participated in DoD's R&D program.

Teams of reviewers from DARPA and ONR have reviewed the proposals, with assistance from SDIO and the Army Research Office (ARO). We soon will receive presentations from some of the potential contractors and will arrange site visits as necessary. We expect that some of the efforts will begin under pre-contract cost allowance letters by November 1, with the bulk of the contracting completed by January 1.

The creative researchers that submitted these proposals have presented the Government with an unprecedented opportunity for laying a firm foundation for the manufacturing of ceramic high temperature superconductors. I want to give you a sense of the range of excellent technical ideas in the proposals, while respecting proprietary interests. In the area of thin films, there were many new ideas for thin film deposition of the new ceramics including laser flash evaporation, various kinds of sputtering, molecular beam epitaxy (MBE), metal-organic chemical vapor

deposition (MOCVD), and chemical approaches involving spun-on films and sol gel techniques. There were component applications to ultra-sensitive magnetic detectors, field effect transistors, infra-red detectors, lossless high speed microelectronics transmission lines and interconnects, A/D converters, Josephson Junction devices, microwave or millimeter wave phase shifters, electronic frequency filters and other circuits, and RF cavities. In the area of bulk materials there were processing ideas involving chemical approaches to manufacturing powders, fiber reinforced composites, and various kinds of monoliths and tapes. Component applications included large scale transmission cables, magnets, magnetic shielding, actuators, solenoids, motors, energy storage devices and magnetic bearings. I wish I could go into some of the fascinating technical details.

It is clear that these proposals contain more good ideas than we will be able to support with reprogrammed funds. About half of the funding request was of outstanding technical merit and relevance, and I hope that we will be able to support half of those top rated proposals. We are formulating our funding strategy based on the merits of the ideas; we expect to concentrate in a few carefully selected technical areas so as not to spread our funding too thinly, but that will leave some technical gaps.

I want to review DARPA's business practices as they apply to our research program in high temperature superconductors. As you know, DARPA maintains no laboratories of its own, and 99% of the funds we receive are used to support research activities at companies, universities and other laboratories. We protect the proprietary information of those organizations, and based on DoD regulations we are able to grant them commercial patent rights for work that we support. All of the manufacturing technology developed by DARPA for high temperature superconductors will be unclassified; at some future time military applications of the technology may be classified.

With respect to export control, both the Department of State and the Department of Commerce grant export licenses, and in making their determination they consult DoD, which has compiled the Militarily Critical Technologies List to identify potentially sensitive exports. The granting of licenses for the export of technology is generally separate from the source of support for the development of technology. Thus an item proposed for export, say a piece of equipment that will be developed for the manufacturing of the new ceramic superconductors, will be granted or denied a license for export separate from whether its development was funded by DARPA or other parts of DoD, DoE, NSF or for that matter private capital. Further, DARPA does not intend to request any export control provisions in contracts under this research program, but rather rely on the

(4)

proprietary interests of the contractors to protect U.S. interests.

In developing our research program we have been mindful of the need for close coordination and joint activities with other parts of the Government. In addition to our joint solicitation with the Office of Naval Research, we are exploring joint funding arrangements with the Air Force and NSA. We have reached an agreement for a joint program with the SDIO in areas of particular concern to them, such as applications of the new materials in space. We fund work at the National Bureau of Standards and at the DoE National Laboratories, and we have coordinated our activities with the DoE and NSF through OSTP's Committee on Materials (COMAT).

I hope that this background information and advice is helpful, and I thank you for opportunity to appear before you.

PROPRIETARY RIGHTS IN THE COMPETITIVE ERA

This paper was prepared by Professor Ralph C. Nash, Jr., George Washington University, who is a member of the Procurement Round Table ("PRT") Board of Directors. The PRT is a non-profit corporation whose purpose is to inform the public and the Congress about the federal procurement process, to study and report on procurement issues, and to make recommendations for improvement to the federal procurement system. The members of the PRT Board of Directors, who serve pro bono and as private citizens, have extensive experience and background in a wide range of Federal Government procurement areas.

HISTORICAL BACKGROUND

In the 1950s the Department of Defense was the first agency to recognize the need for a contractual policy on proprietary rights. Initially, it promulgated a policy permitting contractors to protect such rights by not delivering proprietary data relating to Government products. While this policy has been successfully used by NASA and some other civilian agencies since that time, DoD quickly concluded that it was unacceptable because such data was needed to maintain and operate military hardware. As a result, in 1964 the Department of Defense adopted a new proprietary rights policy that struck a delicate balance between the needs of the military services and the desire of their contractors for protection of proprietary rights.

This 1964 policy promised that the procuring agencies would honor rights to technical data pertaining to items, components or processes "developed at private expense" if contractors would deliver such data to the Government for use in operating, maintaining and repairing military hardware. In addition, contractors agreed they would not claim proprietary rights to technical data pertaining to items, components or processes developed as a part of the performance of Government contracts (excluding items, components or processes developed during IR&D/B&P efforts) and to certain categories of data such as form, fit and function data, and operation and maintenance manuals. The Government also implicitly agreed to pay a fair price for proprietary data it agreed to honor in those cases where it was necessary to buy proprietary rights to carry out its procurement mission (by specifically acquiring rights in data only under narrowly circumscribed conditions). The delicate nature of this balance was demonstrated by the fact that the policy contained a unique deviation provision prohibiting approval of deviations by the military services and requiring all deviations to be granted by the ASPR Committee.

such data was needed to maintain and operate military hardware. As a result, in 1964 the Department of Defense was unacceptable because

This policy was honored, in the main, by the military services and industry for a decade and a half in spite of continual tensions. The major complaints were that industry was claiming proprietary rights in far more data than called for by the contract clauses and that the services were obtaining rights to proprietary data through mandatory "predeterminations" of rights not permitted by the policy. To deal with these problems, the contractual Rights in Technical Data clause grew longer and more complex but the fundamental policy remained essentially as it had been devised in 1964. In the late 1970s essentially the same policy was applied to computer software as it was added to the standard contract clause. It is interesting to note that one of the factors underlying the long adherence to this policy was the fact that the crucial term "developed at private expense" was never defined -- with the result that there was always uncertainty as to the precise scope of the protection being afforded to contractors.

The delicate balance collapsed in the early 1980s. One of the major factors in this collapse was the growing pressure, culminating in the adoption of the Competition in Contracting Act in 1984, for increased competition in defense procurement. Another factor was the adverse publicity from the procurement of spare parts at arguably excessive prices. A third factor has been the increased unwillingness of contractors selling commercial products and computer software to agree to the policy of giving the Government unlimited (i.e., commercial as well as Governmental) rights to technical data and computer software developed in the performance of Government contracts. As a result of these forces, the Secretary of Defense rescinded the strict deviation policy in August 1983 -- permitting the services to formulate new policies. The result has been that the full pressures of the competitive procurement process have been exerted more and more frequently by the Government to obtain greater rights in proprietary technical data and computer software.

At the same time, the agencies failed to devise a single proprietary data policy for inclusion in the Federal Acquisition Regulation. Since DoD and the civilian agencies could not agree on the basic premises supporting a unified policy, it was agreed that separate regulations would be issued. This has led to the creation of a FAR proprietary rights policy for the civilian agencies and a DoD FAR Supplement (DFARS) for the military services. At the time this paper was written, the FAR provisions were awaiting issuance and a revised DFARS has been published for comment.

Industry responded to this chaotic situation by turning to Congress for relief; and Congress, frustrated by the inability of the Government to promulgate a unified policy, passed two statutes in 1984 dealing with rights in technical data (P.L. 98-

525 covering DoD and P.L. 98-577 covering all civilian agencies except NASA). The DoD statute was amended in 1986 by P.L. 99-661 to provide further guidance on proprietary data policy. These statutes attempt to restore the balance that existed in the proprietary rights area in the 1960s and 1970s and should provide the foundation for the new proprietary rights policy of the 1980s. While they are dissimilar in minor respects, they should not prevent the Government from adopting a unified policy in the FAR. However, at the present time, the two policies in the FAR and the DFARS will remain as separate policies.

This paper suggests a totally new proprietary rights policy that will serve the Government into the 1990s. It proposes a rights in technical data policy as covered by the statutes and a rights in computer software policy which is outside of the scope of the statutes. It accepts neither the current statutes nor the old DoD policy as valid but strives to attain a new balance.

BASIC POLICY GOALS

A policy that can survive in the new competitive era must attain three major policy goals.

1. Provide the Benefits of Competition

The new policy should attempt to preclude contractors from creating a sole source position in the long-term manufacture of a product designed and developed under a Government contract. There can be little question that the Government needs to bring the full force of competition to bear on its procurements in order to obtain the products it needs within the amount of funds available. The benefits of competition have been well documented in Kratz & Gansler, Effective Competition During Weapon System Acquisition, NCMA Challenge Monograph Series, Vol. 1 (1985). This goal can usually be achieved, however, without destroying a contractor's proprietary rights. The following techniques are documented in Nash & Rawicz, Patents and Technical Data (Geo. Wash. Univ. 1983) as being usable for this purpose:

a. Competitive copying -- providing competitors performance specifications and samples of the product to be used in submitting competitive offers for the product in subsequent procurements. This technique is now mandated for spare parts procurements in 10 U.S.C. 2320(d).

b. Form, fit or function specification -- permitting competitors to design new products against the original performance specifications.

c. Licensing -- requiring the developer to license competitors or to grant the Government the right to sublicense competitors.

d. Leader-follower -- requiring the developer to establish a second source by subcontracting a portion of the production quantity or by licensing.

e. Specific acquisition -- purchasing the necessary rights in technical data to permit its use in competition.

f. Reverse engineering -- preparing detailed manufacturing drawings by analysis of the product without use of the proprietary drawings.

While none of these techniques can be used to obtain competition in all situations, they have all been used effectively by the military services in specific procurements. (DFARS 217.7201-2 contains limited guidance on the use of some of these techniques.) Thus, there are numerous techniques available to obtain competition without taking away all proprietary rights of contractors.

2. Protect Proprietary Rights

An equally important goal is that the policy protect the proprietary rights of contractors. It should be understood that contractors seeing a strong commercial market for their products will not give up all proprietary rights to those products in order to sell them to the Government. There are two broad classes of contractors that fall in this category: specialty subcontractors and vendors of software. If faced with a demand for Government unlimited rights in technical data and computer software, they can be expected to i) refuse to sell to the Government, ii) add a significant premium to the price, or iii) redesign so as not to use the proprietary information. None of these courses of action benefit the Government and all can be expected to increase the price of the design and development effort.

Fortunately, the Government does not need unlimited rights to carry out its mission. Under the present DoD policy, the procuring agency is given only two choices --to accept the data or software with proprietary markings (limited or restricted rights) agreeing to restrictions on its use or to take unlimited rights to use the data and to disclose it at will. The FAR policy provides a third choice -- to permit complete withholding of the proprietary data. However, another, superior choice is readily available -- to take full rights to use the data for Governmental purposes while preserving the commercial rights in the contractor. The Final Report of the President's Commission on Defense Management (June 1986) (the Packard Commission) makes the following recommendations in Appendix I:

a. Except for data needed for operation and maintenance,

classes of contractors that fall in this category: specialty

the government should not, as a precondition for buying the product, acquire unlimited rights in data pertaining to commercial products or products developed exclusively at private expense. If, as a condition of the procurement, the government seeks additional rights in order to establish competitive sources, it should normally acquire lesser rights (such as directed licensing or sublicensing) rather than unlimited ones. The rights least obtrusive to the private developer's proprietary position should be selected.

b. The government should encourage a combination of private and government funding in the development of products. Significant private funding in this mix should entitle the developer to ownership of the resulting data, subject to a license to the government permitting use internally and use by contractors on behalf of the government. If government funding is substantial, the license should be on a royalty-free basis; otherwise, it should be on a reduced or fair-royalty basis. Whenever practicable, the rights of the parties should be established before contract award.

c. If products are developed exclusively with government funding, the contractor/developer should be permitted to retain a proprietary position in the technical data (a) not required to be delivered under the contract or (b) delivered but not needed by the government for competition, publication, or other release. Use by or for the government should be without additional payment to the contractor/developer.

These recommendations point the way to a new policy that will protect essential proprietary rights.

3. Simplicity

A third goal is of equal importance. The present DoD regulations and contract clauses are far too complex to be understandable. The new FAR is shorter and clearer but remains difficult to interpret. The regulations are problematic primarily because they do not contain clear explanations of the policies relating to very difficult issues. The contract clauses are complex because they are single omnibus clauses to be used for both research and development and manufacturing contracts and for both technical data and computer software. As a result, they are probably the longest clauses in the entire Government contracting process and certainly the most complex clauses currently in use. There is great doubt if either the regulations or the clauses are understood by even the seasoned veterans of the procurement profession.

Simplicity is necessary because the issue of proprietary

rights is one which is raised on a day-to-day basis in the negotiation and administration of contracts. The personnel charged with these responsibilities are generally not legally trained and cannot be expected to deal with esoteric legal terminology and undefined provisions. They need contract provisions and regulatory guidance that they can comprehend and work with. The Report of the Packard Commission recommends that this problem be addressed by preparing separate clauses for computer software and for manufacturing contracts.

ELEMENTS OF A NEW POLICY

The following elements are suggested for inclusion in the new policy for proprietary rights. Each element is discussed in terms of the current statutes and regulations and the prior experience that has been attained in using the policy.

1. Issuing a Single Regulation

One of the major goals of the FAR system was to provide uniform guidance to the Government and its contractors on procurement policy. Technical data and computer software are the major areas where the Government has been unable to formulate such policy. The Packard Commission identifies this problem and makes the following recommendation:

> The FAR System (a single uniform regulation applicable to all agencies, with supplements by agencies as needed) should be used to cover data rights. Without the discipline of a uniform system, similar terms and concepts are defined and treated differently. The differences are not justified. The FAR should provide common definitions of basic terms, since there is no apparent reason for agencies to use different definitions, a practice that causes great confusion.

Unfortunately, the statutes are not helpful in this area. Both of the statutes passed in 1984, while somewhat dissimilar in language, contained a requirement that they be implemented "as part of a single system of Government-wide procurement regulations." However, the DoD statute was change by P.L. 99-661 in 1986 to call for implementation in the DFARS. Thus, Congress has become part of the problem of arriving at a single unified regulation. The DoD statute should be amended to permit the FAR to contain the fundamental policies of the Government on technical data and computer software. Included in this new FAR should be all major alternative policies which are necessary for DoD and other agencies in the acquisition of hardware for their own use. Special policies can then be adopted by the DFARS and other supplemental regulations.

The FAR should also contain guidance on the methods of

[illegible] regulation applicable to

obtaining competition on proprietary products without violating proprietary rights. As discussed above, these techniques are covered, in a limited way, in DFARS 217.7201-2. However, there is no coverage of this subject in the FAR with the result that civilian agencies are given no help when they face this difficult problem.

2. Separating Technical Data From Computer Programs

Recent studies of proprietary rights policy have concluded that clarity could be achieved and a more effective policy implemented by separately treating technical data and computer software. See the Report of the Packard Commission and the recent report of the Software Engineering Institute, Technical Report CMN/SEI-86-TR-2, Proposal for a New "Rights in Software" Clause for Software Acquisitions by the Department of Defense (Sept. 1986). The reasoning supporting this recommendation is that most computer programs are more like hardware than technical data since they are end products which generally function as a part of an operating system. Thus, they are not used to reproduce (manufacture), operate or maintain hardware as technical data is used, but rather are products which need technical data to tell the users how they are to be operated and maintained. (Some software, such as Computer Aided Manufacture ("CAM") software, drives a machine to make a part--like a drawing is used to manufacture a part.) Furthermore, the entire legal structure that has been developed in the commercial world to protect rights in computer programs (basically the techniques of the copyright law) is different than that used by the Government to protect rights in technical data. Thus, separate treatment of technical data and computer programs will permit the Government to more closely follow the commercial model in procuring computer programs.

The difficulty with the recommendation of the Packard Commission and the Software Engineering Institute is that they propose separate policies for technical data and computer software while their reasoning is based on the difference between technical data and computer programs. Under current policies, software comprises both computer programs and computer data bases. Most computer data bases, however, are much more like technical data in that they are compilations of information. Thus, it makes more sense to continue to treat computer data bases in the same way that technical data is treated. (Some data bases are an integral part of a program and should be treated as programs.) A further problem in this area is created by the current DoD policy which includes software documentation as technical data rather than as computer software. Software documentation relating to computer programs is an integral part of such programs and often contains the most valuable proprietary information possessed by the contractor. Recognizing this fact, the policy should treat software documentation of programs in the

same manner that it treats the computer programs. This is the position adopted by the FAR in spite of the fact that the current statutes define technical data to include computer software documentation (but give no further guidance on the treatment of computer software). For the purpose of clarity, the statutes should be amended to alter this definition. It is believed that such statutory change can be readily achieved since the statutes merely adopted the current DoD definition without considering the implications with regard to computer software.

In summary, it is recommended that the Government promulgate separate policies and contract clauses covering:

a. Information concerning items or processes such as technical data, computer data bases, and software programs which are substitutes for technical data, such as CAM software, and

b. End items such as computer programs, documentation of these programs, and computer data bases that are an integral part of a computer program.

This paper includes no further discussion of the policy that should be adopted for computer programs and their documentation.

3. Protecting Commercial Rights in Technical Data

The 1964 technical data policy adopted by DoD provided that all data would be provided with either "limited rights" or "unlimited rights" and gave unlimited rights to all data that pertained to an item, component or process not developed at private expense which did not fall within any of five listed categories: i) data resulting directly from performance of any Government contract or subcontract requiring research and development work, ii) changes to Government-furnished data, iii) form, fit or function data, iv) operation, installation, training or maintenance manuals and v) public domain data. The civilian agencies have followed a similar policy of taking unlimited rights in a large amount of technical data. This sweeping policy of taking unlimited rights was very restrictive of the proprietary rights of contractors since "unlimited rights" were defined as the --

> rights to use, duplicate, or disclose technical data, in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so.

Since proprietary rights in technical data are in the nature of a trade secret, this full right to disclose the data to the public gave the Government the right to effectively destroy the trade secret and, hence, to destroy the commercial value of the data. While a copyright could be preserved in such cases, there is

generally little commercial value in the copyright on technical data.

In recent years, the attitude of some Government agencies with regard to proprietary rights which derive from work on Government contracts has changed. It is being recognized more widely that there is public value in permitting contractors to retain commercial rights in innovative work done on Government contracts so that they can exploit such technological advances in the commercial marketplace, both in the United States and abroad. It is reasoned that the public gains through more domestic employment and a better balance of payments position. Further, it has been argued that the contractor that created the innovation is the most likely to exploit it and hence the most likely to provide the new technology to the American consumer. This reasoning has already resulted in the total change of Government contracts patent policy which now calls for the contractor to retain all commercial rights to inventions made in the course of performing Government contracts. See Public Law 96-517 (35 U.S.C. 200 et seq.) and the President's Memorandum on Government Patent Policy, Feb. 18, 1983. The same reasoning is applicable to rights in technical data.

The first recommendation of the Packard Commission, set forth above, partially adopts this reasoning. However, the current DoD statute, 10 U.S.C. 2320(a)(2), contains two provisions which muddy the waters in this area. These provisions state:

> (A) In the case of an item or process that is developed by a contractor or subcontractor exclusively with Federal funds, the United States shall have the unlimited right to -
>
> > (i) use technical data pertaining to the item or process; or
> >
> > (ii) release or disclose the technical data to persons outside the government or permit the use of the technical data by such persons.
>
> (G) The Secretary of Defense may -
>
> > * * * *
> >
> > (ii) agree to restrict rights of the United States in technical data pertaining to an item or process developed entirely or in part with Federal funds if the United States receives a royalty-free license to use, release, or disclose the data for purposes of the United States (including purposes of competitive procurement).

state:

The civilian agency statute, 41 U.S.C. 4I8a(b)(1), contains equally troublesome language. This statutory language may require amendment or clarification to permit the Government to adopt a policy which gives broad protection to the commercial rights of contractors.

The policy that should be adopted to accomplish this purpose of protecting commercial rights is to provide for an intermediate type of right between limited rights and unlimited rights. This new type of right should permit the contractor to treat all data generated on a contract as proprietary giving the Government the right to use the data for internal purposes and requiring the licensing of other contractors to use the technical data to achieve competition on Government procurements. In lieu of the licensing requirement the policy could permit the Government to sublicense others for this purpose. The former technique is preferable because it permits the contractor to deal directly with the companies using the data and saves the Government from being in the undesirable position of having to serve as a middleman in the negotiation of the terms of the license. In either case, the contractor should be required to provide technical assistance to licensees to ensure that they are able to use the data to successfully manufacture the product. The license granted by the contractor would, of course, be limited to work for the Government and would prohibit use of the technical data on commercial or foreign work. It would apply to all data originated in the performance of the contract without regard to the source of funds. Thus, it would preclude the current situation where contractors claim rights to portions of the data delivered under their contracts and the parties then enter into lengthy negotiations over the propriety of placing limited rights legends on specific items of data. The Air Force has used licensing policies of this nature for a number of years with considerable success and the adoption of such a policy was recommended by the OSD Technical Data Rights Study Group in its report, Who Should Own Data Rights: Government or Industry? Seeking a Balance (June 1984).

While the FAR contains no mention of this type of policy, the proposed DFARS includes recognition of both types of licensing. It provides in the standard technical data clause for "Government purpose license rights" giving the Government the right to license competitors of the contractor to use the data only for competition on Government contracts. Such rights are used in three situations under this proposed policy:

a. If the contractor has funded over 50% but not all of the development cost of the item, component or process, and the contracting officer does not determine that unlimited rights are required (DFARS 227.472-5(b)),

b. If the contractor is a small business firm or nonprofit organization that agrees to commercialize the technology and that has funded part but not all of the development cost of the item, component or process, and the contracting officer does not determine that unlimited rights are required (DFARS 227.472-5(b)),

c. If the contractor has funded less than 50% of the development cost of the item, component or process and agrees to commercialize the technology, and the contracting officer determines that the Government does not need unlimited rights (DFARS 227.472-7).

Proposed DFARS 227.474-3 also permits the use of direct licenses from the contractor to competitors but it states that such provisions are generally not appropriate for other than high-dollar-value procurements. These provisions are a first step in the recognition of these licensing techniques. However, they are confusing and almost completely lacking in guidance for contracting officers who are expected to implement them. They also adopt the most difficult licensing technique (the Government sublicense) as the standard technique, relegating the preferable technique (direct licensing) to a subsidiary role.

The difficult problem which has not been addressed by any of the studies or discussions of a licensing policy is whether it should be applied to all technical data generated on a contract. It has generally been assumed (by the Air Force, for example) that licensing is applicable to technical data that would otherwise be limited rights data, i.e., data meeting the test of pertaining to items, components or processes developed at private expense. The Packard Commission Report and the proposed DFARS go further in suggesting that licensing is a viable technique for data created with "mixed funding." This is in response to the requirement of the statutes that a policy be adopted for such data. See, for example, the new statute, 10 U.S.C. 2320(2)(E), stating:

> (E) In the case of an item or process that is developed in part with Federal funds and in part at private expense, the respective rights of the United States and of the contractor or subcontractor in technical data pertaining to such item or process shall be agreed upon as early in the acquisition process as practicable (preferably during contract negotiations), based upon consideration of all of the following factors:
>
> (i) The statement of congressional policy and objectives in section 200 of title 35, the statement of purposes in section 2(b) of the Small Business Innovation Development Act of 1982 (15 U.S.C. 638

It has generally been [illegible]

note), and the declaration of policy in section 2 of the Small Business Act (15 U.S.C. 631).

(ii) The interest of the United States in increasing competition and lowering costs by developing and locating alternative sources of supply and manufacture.

(iii) The interest of the United States in encouraging contractors to develop at private expense items for use by the Government.

What is proposed here is to go further and apply the licensing policy to all technical data without regard to the source of funding--even that data generated entirely with Government funds.

If this new licensing policy is adopted as a third type of right, the issue arises as to when a contractor would qualify for this type of right in lieu of giving the Government unlimited rights. Here the current patent policy can be used as guidance. This policy allows commercial rights to be taken away from the contractor by giving the Government "march-in rights" in 35 U.S.C. 203 if such action is necessary --

(a) because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of subject invention in such field of use;

(b) to alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee, or their licensees;

(c) to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee, or licensees; or

(d) because the agreement required by section 204 [giving preference for United States industry] has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of its agreement obtained pursuant to section 204.

Similar tests could be used in deciding whether a contractor was entitled to license rights or in providing in the contract clause that the Government was entitled to subsequently take unlimited rights. In addition, the policy should permit the Government to take unlimited rights (subject to compensation for technical data that met the private expense test) if it was determined that sufficient competitors were not willing to enter into the license arrangement in order to compete for the Government work. This right is necessary to protect the Government in those situations

application of subject invention

where the commercial marketplace is so competitive that competitors are unwilling to enter into licenses because of the potential restrictions that such licenses might place on their future commercial products.

In summary, it is recommended that the Government adopt a completely new standard policy permitting the Government to use all technical data relating to items, components or processes developed on Government contracts for internal purposes and requiring the contractor to license companies to use the data on Government competitions. This policy would apply without regard to the source of the funding of the development work. The limited rights and unlimited rights policies would be left in place for broad types of technical data not related to hardware, such as final reports on research contracts, and for those situations where the direct licensing policy was not appropriate or could not be agreed to.

4. Compensation for Licensing of Competitors

If the licensing policy recommended above is adopted, there remains the question of what compensation should be paid to the contractor for the licensing of competitors. The DoD statute appears to permit payments of royalties if the licensed data is private expense data or mixed funding data. Conversely, it appears to preclude payment of royalties if the data is Government expense data. The civilian statute is silent on this issue. If this policy is followed, the procuring agency and the contractor will be forced to agree on which category is applicable to each item of data generated on the contract. This cumbersome procedure should be avoided, if possible, since it is currently one of the most unproductive aspects of the Government's technical data policy. (Data validation challenges are consuming substantial resources of both the agencies and their contractors and are of questionable productivity in achieving the long-term mission of the agencies.) Thus, it is highly desirable to arrive at a policy that will base the compensation of the contractor on some factor other than the amount of contractor expense or mixed expense data that is included in the package provided to a competitor.

Fortunately, there is another basis for determining the compensation of a contractor that agrees to license competitors. The payment of a royalty for such a license can be properly viewed as fair compensation for the successful completion of a development effort. Furthermore, a policy that regularized such royalty payments would provide a powerful new incentive to contractors to develop products that were suitable for high volume production over a long period of time. It is exactly this type of new incentive that might serve the Government well in a period of budget stringency.

The questions would undoubtedly be raised as to whether the regular payment of such royalties would add to the overall cost of the procurement process and would result in undue profits to development contractors. With regard to profits, this is a particularly appropriate time to consider the adoption of such a policy in view of the fact that the proposed new DoD profit policy, promulgated in 50 Fed. Reg. 43200, significantly reduces the rate of profit on research and development work. Thus, the payment of a royalty to the developer when a product is produced by another contractor can be seen as a way of balancing the apparently inadvertent reduction of profits in this area. Further, it is a particularly good way of paying profit since it only pays for success. With regard to the question of whether this proposed policy would add to the overall cost of the procurement process, it must be recognized that the royalty would only be paid in selected circumstances. If licensees of the contractor were forced to compete with the contractor, the royalty would only be paid when a licensee won the competition. In this situation, the royalty can be seen as a modest competitive advantage which the Government is willing to give the contractor that developed the product. This competitive advantage would not be large enough to permit the contractor to include exorbitant costs in the price with the result that the payment of the royalty would still provide the major advantage of competition to the Government. The Kratz & Gansler Monograph indicates that in the past, the original developer has frequently won such competitions at substantially reduced prices. If this were to occur under the proposed policy, the Government would not pay the royalty at all. Further, the adoption of this royalty policy might greatly facilitate the achieving of competition because development contractors would regularly agree to license their technical data and to assist their licensees in using the data to manufacture hardware. Considering all of these factors, it can not be determined whether this proposed policy would increase or reduce the overall cost of procurement. However, it does not appear that it would entail substantial additional costs and there is some likelihood that the better incentives and greater competition would result in an overall decrease in costs.

The question of the amount of the royalty must also be addressed. The amount should be established at a rate between 1% and 5% of the price of the manufacturing contract based on two factors -- i) the overall technical competence which the contractor brings to the development effort and ii) the projected needs of the agency for the product being developed. A high royalty rate within this range is warranted when the contractor is providing the Government with a highly skilled development team that has a long history of success in the product area. Generally, such a contractor might be expected to have a portfolio of patented inventions or of private expense technical data that would otherwise be furnished with limited rights, but this would only be one element in this part of the determination.

A high royalty rate would also be warranted if the Government anticipated a relatively low expenditure of dollars in the production phase since this would provide the contractor a low base for computation of the royalty. It might be necessary to include an adjustment feature in the agreement in the event the Government's original estimate of its needs turned out to be highly inaccurate.

In summary, it is recommended that the Government adopt a policy that will compensate its development contractors by paying them a royalty when one of their licensees manufactures hardware which they have successfully developed. This royalty will provide additional incentive for successful development and will reward them for assisting a licensee in becoming a successful manufacturer.

5. Controlling the Techniques Used to Obtain Competition

As discussed earlier, there are a number of techniques available to achieve competition without violating the proprietary rights of contractors. However, the guidance on the use of these techniques is quite sparse and there appears to be a lack of understanding of all of the alternatives available to contracting officers. As a result, the military services have used several techniques in recent years which have created great antagonism among their contractors. Two techniques in particular have been seen as unfair methods of obtaining rights in proprietary data -- i) placing a time limit on limited rights and ii) requiring a contractor to submit alternate proposals granting the Government unlimited rights to data delivered under the contract. Neither of these techniques is necessary to achieve competition on military procurement and they should both be banned. At the same time, as recommended above, substantial guidance should be given on the legitimate techniques -- competitive copying, use of form, fit or function specifications, leader-follower, specific acquisition and reverse engineering -- as well as on the licensing technique recommended above.

Placing a time limit on proprietary rights proved to be a highly controversial technique when it was first used by the Air Force in 1983. The proposed time limits varied from two to five years and appeared to have no relationship to the expected period of time that the proprietary information might have commercial value. Thus, they were seen as arbitrary ways of using the Government's bargaining power to deprive contractors of legitimate proprietary rights. Unfortunately, the DoD statute contains very cryptic language on this subject. 10 U.S.C. 2320(c) states:

> (c) Nothing in this section or in section 2305(d) of this title prohibits the Secretary of Defense from prescribing standards of determining whether a contract

entered into by the Department of Defense shall provide for a time to be specified in the contract after which the United States shall have the right to use (or have used) for any purpose of the United States all technical data required to be delivered to the United States under the contract or providing for such a period of time (not to exceed 7 years) as a negotiation objective.

There should be no objection to a policy that removes stale proprietary legends from data. However, arbitrarily short time periods are an unfair means of taking away a contractor's rights without compensation. Proposed DFARS 227.474-4 ameliorates this problem somewhat by providing that the Government will normally receive Government purpose license (rather than unlimited) rights upon the expiration of the limited rights. However, since the entire issue has generated an undue amount of friction with little commensurate benefit to the Government, this policy should be abandoned and the statutory provision repealed if that is thought necessary.

The requirement for alternate proposals giving up all proprietary rights was adopted as standard policy by the Navy and has been used by all of the military services. It is a way of using the full force of competition to obtain a low price for a contractor's proprietary rights. This would appear to be inconsistent with a policy of honoring proprietary rights and may be prohibited by the statute. See 10 U.S.C. 2320(a)(2)(F) stating:

> (F) A contractor or subcontractor (or a prospective contractor or subcontractor) may not be required, as a condition of being responsive to a solicitation or as a condition for the award of a contract, to sell or otherwise relinquish to the United States any rights in technical data except --
>
> > (i) rights in technical data described in subparagraph (C) [correction or change data, form, fit or function data, manuals or public domain data]; or
> >
> > (ii) under the conditions described in subparagraph (D) [release for emergency repair or use of a foreign government under restricted conditions and with notice to the contractor].

This statutory provision is included in proposed DFARS 227.472-4 without supplementation. Minimal additional guidance is included in DFARS 227.473-2. DoD should directly acknowledge that this technique is an undesirable means of obtaining competition and should ban its use.

It can be seen from this discussion that there is a great need for guidance on the ways to obtain competition without violating proprietary rights. Until such guidance is given, the forces driving for competition will impel procuring activities to try new techniques to obtain proprietary rights without adequate compensation to the contractor. What must be communicated is that the Government is far better served if it enlists the contractor's assistance in obtaining and using the proprietary information. In this way, the contractor can be used to provide technical assistance and effective competition can be more readily attained.

In summary, the Government should ban time periods on limited rights and competitive alternate proposals requiring unlimited rights. Further, substantial guidance should be issued on the acceptable ways of obtaining competition without violating proprietary rights.

SUMMARY OF REQUIRED ACTIONS

The specific actions required to implement the recommendations contained in this paper are:

1. Adopt a FAR section on technical data and computer programs containing the basic policies to be used by all agencies. This will require a joint effort by DoD and the civilian agencies. In order to simplify the issues, Congress should be requested to adopt a single statute relating to technical data.

2. Write the FAR so that it contains separate guidance and separate contract clauses for (i) information relating to items or processes such as technical data, most computer data bases, and software programs which are substitutes for technical data, and (ii) end items such as computer programs, documentation of these programs, and computer data bases that are an integral part of a computer program. The policies for the procurement of rights in the second category should be coordinated throughout the Government since many agencies now purchase such items.

3. Include in the FAR a new standard technical data policy giving the Government the right to direct the contractor to license the right to use technical data when competition is required. This will require an amendment to the data statutes and substantial new regulatory guidance to aid contracting officers in the implementation of the policy.

4. Include in the FAR guidance on the computation of the royalty that will be paid for the Government license to use technical data for competitive procurement purposes. This guidance will probably be general in nature since each agency will have to coordinate the royalty payment with their profit

policy on research and development contracts. The data statutes should be amended to permit such royalties when no proprietary data is involved.

5. Include in the FAR guidance on the techniques that are available to obtain competition without violating proprietary rights and ban the use of arbitrary time limitations on proprietary rights and the solicitation of alternate proposals giving up all proprietary rights.

-o0o-

Attachment 2

PHS - AIDS ADVISORY STRUCTURE

The Public Health Service (PHS) has the lead within the Department for the support, conduct, coordination and management of the health aspects of Acquired Immunodeficiency Syndrome (AIDS). The purpose of the PHS AIDS Committee is to provide outside advice and counsel on all matters concerning the PHS efforts on AIDS. It should be composed of approximately 6 members that represent medical, health care, patient needs, economic, statistics, social and ethical issues, and 5 members who are the Chairpersons of each Agency's AIDS Advisory Committee.

National Institutes of Health

Committee Purpose: The Committee will advise on all aspects of the NIH AIDS research. It will identify opportunities to further research on AIDS and recommend initiatives that should be undertaken to advance knowledge in diagnosing, preventing, and treating the disease. The Committee will also advise on research directions and identify areas of research requiring additional efforts.

* Charter Period Requested: 2 years
* Authorized Membership: 6 scientific members, 2 public members
* Cleared by OGC: Yes
* Projected Year Costs: $65,846

Food and Drug Administration

The Committee will advise on all aspects of the FDA's regulatory efforts on AIDS, i.e., drug, vaccine, diagnostics, blood and blood products.

* (other aspects of the Committee are similar to those identified for NIH Committee above)

Centers for Disease Control

The Committee will advise on all aspects of the Centers for Disease Control (CDC) epidemiology, prevention, education and other aspects of AIDS that composed the CDC's mission on the disease AIDS.

* (other aspects of the Committee are similar to those identified for NIH Committee above)

Health Resources and Services Administration

The Committee will advise on all aspects of HRSA activity on AIDS with reference to patient care and health services delivery, resources and other aspects of addressing their mission on AIDS.

* (other aspects of the Committee are similar to those identified for NIH Committee above)

Alcohol, Drug Abuse and Mental Health Administration

The Committee will advise on all aspects of ADAMHA's activities on addiction, behavior and neurological aspects of AIDS, including outreach efforts concerning service and delivery consistent with the ADAMHA's mission on AIDS.

* (other aspects of the Committee are similar to those identified for NIH Committee above)

TECHNOLOGY MANAGEMENT STAFF

SECTION 1. PURPOSE

.01 This order establishes the Technology Management Staff within the Office of the Assistant Secretary for Health and prescribes its functions and organization.

SECTION 2. STATUS AND LINE OF AUTHORITY

.01 The Technology Management Staff shall be a constituent operating unit within the Office of the Assistant Secretary for Health and shall report to that officer through the Deputy Assistant Secretary for Health. It shall consist of a Director, a Deputy Director, such professional and support staff as may be required, and shall be organized in such manner as the Director may from time to time prescribe.

SECTION 3. FUNCTIONS

.01. General. The Technology Management Staff shall be the principal organization within the Office of the Assistant Secretary for Health (OASH) for advising and otherwise assisting that officer in the performance of his or her responsibilities relating to evaluation of current Government patent policy, prescribing necessary modifications, determining rights in inventions, transferring technology developed with Departmental funds to the private sector; and maintaining liaison with Congress and other appropriate persons and entities regarding Government patent policy and technology transfer matters.

.02. Definitions. As used in this order, unless specifically stated otherwise, the term "patent policy" relates to all issues concerning the acquisition and licensing of rights to federally funded inventions by the Department, its employees, or its contractors; and the term "technology transfer" relates to all issues concerning PHS participation in collaborative or licensing arrangements with the private sector or other public entities, and with the marketing of technological innovations by PHS scientists.

.03. Specific Responsibilities. In performing the functions prescribed in paragraph 3.01, the Technology Management Staff, through its Director, shall:

a. in the absence of the Assistant Secretary and Deputy Assistant Secretary for Health, represent OASH on the Department Patent Board, the Federal Laboratory Consortium, Cabinet Council working groups, and on related interagency and intraagency working groups, committees, and boards concerned with matters pertaining to Government patent

policy, technology transfer, intellectual property, and related planning and management issues.

b. provide guidance and clarification as to Departmental policies relating to the matters described in paragraph 3.01 to the General Counsel and the Department Patent Counsel to assist them in performing the related legal services described in Chapter 1-900-10 A.2 of the Department's Organization Manual.

c. provide guidance and clarification as to Departmental policies relating to the matters described in paragraph 3.01 to the head of each operating agency to assist them in performing of their responsibilities under Chapter 1-901-10 B of the Department's Organization Manual.

d. serve as the principal focal point within OASH for:

(i) with respect to technology transfer, developing policies and procedures for identifying research projects, technology, investigators, unique equipment and facilities which could serve as the basis of a cooperative research project or license agreement; communicating this information to the private sector; identifying and resolving conflicts of interest or moral issues which might be associated with private support; negotiating, approving and/or executing cooperative and licensing agreements; conducting and monitoring the cooperative research and licensing program; assure reporting of new technologies created under cooperative agreements; determining the appropriate royalty share for inventors others entitled to share them; and engage other public or private sector technology management services as may be necessary;

(ii) with respect to patent policy, reviewing and evaluating the effectiveness of existing Departmental policies and practices for protecting the government's interests and promoting the commercial use of inventions made by government contractors, grantees and employees; and developing more efficient techniques for ascertaining the commercial value of inventions and making related decisions regarding to file for a patent, maintain a patent, or file for a Statutory Invention Registration.

(iii) with respect to administrative matters, make periodic recommendations to the Assistant Secretary for Health regarding the Department's relationship with the National Technical Information Service in the Department of Commerce; the maintenance of close liaison with

universities, small business, nonprofit organizations, private industry, other agencies and Committees of Congress on matters described in this order; develop policies and take appropriate action to ensure the protection and commercialization of technology subject to other forms of intellectual property protection; and serve as the central coordinating point within OASH for developing or commenting on related legislation.

b. provide guidance and clarification as to Departmental policies relating to the matters described in paragraph 3.01 to the General Counsel and the Department Patent Counsel to assist them in performing the related legal services described in Chapter 1-900-10 A.2 of the Department's Organization Manual.

c. provide guidance and clarification as to Departmental policies relating to the matters described in paragraph 3.01 to the head of each operating agency to assist them in performing of their responsibilities under Chapter 1-901-10 B of the Department's Organization Manual.

d. serve as the principal focal point within OASH for:

(i) with respect to technology transfer, developing policies and procedures for identifying research projects and facilities which could serve as the basis of a cooperative research project (states and localities), and academic institutions; communicating this information to the private sector; identifying and resolving conflicts of interest or moral issues which might be associated with private support; negotiating ~~and~~ approving cooperative agreements ~~and executing them~~; conducting and monitoring the cooperative research program; reporting new technologies created under cooperative agreements; determining the appropriate royalty share for inventors others entitled to share them;

(ii) with respect to patent policy, reviewing and evaluating the effectiveness of existing Departmental policies and practices for protecting the government's interests and promoting the commercial use of inventions made by government contractors, grantees and employees; and developing more efficient techniques for ascertaining the commercial value of inventions and making related decisions regarding to file for a patent, maintain a patent, or file for a Statutory Invention Registration.

(iii) with respect to administrative matters, make periodic recommendations to the Assistant Secretary for Health regarding the Department's relationship with the National Technical Information Service in the Department of Commerce; the maintenance of close liaison with universities, small business, nonprofit organizations, private industry, other agencies and Committees of Congress on matters described in this order; and serve as the central coordinating point within OASH for developing or commenting on related legislation.

THE UNDER SECRETARY OF HEALTH AND HUMAN SERVICES
WASHINGTON, D.C. 20201

MAY 12 1987

MEMORANDUM TO: TOM BURKE
RON DOCKSAI
BOB HELMS
TONY MCCANN

/s/

FROM: Don Newman
Under Secretary

SUBJECT: Policy Council Meeting, May 14, 1987 - ~~3:30-4:30~~ 4:00-5:00 p.m.

AGENDA

Technology Transfer Act Implementation

Presenter: Lowell Harmison

Additional Participants: Bob Raclin
Ron Robertson

Document Distributed With This Agenda: "Technology Transfer Act Implementation"

Attachments a/s

cc:
The Secretary
S. J. Plager
Bob Raclin
Ron Robertson
Lowell Harmison

ISSUES/TOPICS FOR CONSIDERATION BY THE POLICY COUNCIL

DATE	TOPIC	PRESENTED BY
May 20, 1987	**NO MEETING SCHEDULED**	
May 27, 1987	Agent Orange Settlement Payments	
June 3, 1987	**NO MEETING SCHEDULED**	
June 10, 1987	Alcohol Warning Labelling Policy	PHS
June 17, 1987	Head Start Program Policy	HDS
June 24, 1987	**NO MEETING**	

NO MEETINGS PLANNED FOR JULY--POLICY COUNCIL MEMBERS INVOLVED IN BUDGET/LEGISLATIVE PROGRAM REVIEW MEETINGS.

TECHNOLOGY TRANSFER ACT IMPLEMENTATION

Issue: How should HHS implement the Technology Transfer Act?

Background

The Technology Transfer Act of 1986 encourages and facilitates interaction between Federal laboratories and the private sector, principally activities to promote commercialization of Federal research. It authorizes Federal laboratories to enter into cooperative agreements with the private sector; and enhances patent application licensing, and royalty sharing.

The provisions of the Act involve only PHS agencies, principally NIH, and to a lesser degree, CDC, ADAMHA and FDA.

On March 17, the Policy Council discussed implementation of the Act. The Deputy Assistant Secretary for Health and the Deputy Under Secretary were requested to develop an implementation plan that addresses the organizational structure; procedures for licensing, patent and cooperative agreements; coordination with other Federal agencies; compatibility of data systems, etc.

Subsequent to the Policy Council meeting:

- OS and PHS staff met to discuss implementation concerns and areas of focus to guide planning.
- The President issued an executive order directing Federal agencies to implement the Act.
- PHS developed an implementation plan; a summary is at the "Plan" tab. While that plan essentially is a set of procedures for further work on issues and mechanisms to implement the Act, it does address the main concerns raised by the Policy Council in the March meeting and OS staff subsequently.

Specific Issue

The immediate question is whether implementation of the Act should be delegated to the Assistant Secretary for Health at this time, as he recommends. The consensus of OS staff is that it should be.

PREPARED BY THE OFFICE OF THE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION, IN CONSULTATION WITH PHS AND OS STAFF OFFICES

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Memorandum

Date MAY 11 1987

From Assistant Secretary for Health

Subject Implementation of the Technology Transfer Act of 1986 - ACTION

To The Under Secretary
Through: COS_____
ES_____

The purpose of this memorandum is to provide the PHS proposed plan for the implementation of the Technology Transfer Act (TTA) of 1986. The plan includes a public statement to be issued by the Secretary and a delegation of authority from the Secretary to the Assistant Secretary for Health.

BACKGROUND

Under the terms of the Act, each Federal agency may permit the director of its Government-operated Federal laboratories to enter into cooperative research and development agreements with Federal agencies, industrial organizations, public and private foundations or other "persons." The law seeks to provide opportunities and incentives for the commercialization of technology at such laboratories. The law also makes it the responsibility of each technical employee and the management structure to develop opportunities for the transfer of technology out of the Federal laboratories.

The Executive Order

On April 10, 1987, the President issued Executive Order No. 12591 which directed Federal agencies to implement the Act by delegating authority to its Government-owned, Government-operated Federal laboratories to enter into cooperative research and development agreements and to license inventions produced by the laboratories.

Departmental Impact

In order for the Department to vigorously implement the Act: 1) delegations of authority to the level that will provide for the most effective implementation must be accomplished as quickly as possible; and 2) procedures must be established which (a) protect the public interest yet fully embrace the "new way of thinking" (b) strongly encourage the development of cooperative research and development agreements, patents and licenses, and (c) provide guidelines which the laboratories and their scientists find helpful in accomplishing their new responsibilities.

Current Procedures

Under Chapter 1-901, "Department Patent Activites," of the Department's organizational manual, I have Department-wide responsibility to evaluate current patent policy, develop policies to meet changing needs, and to make determination of the rights in inventions and patents involving important policy considerations. My office is experienced in the area of patent policy since we have actively developed all Department invention and patent policies since 1969. PHS is the sole operating division in HHS with research laboratories which would be involved in the type of collaboration addressed by the Act.

We are prepared to assimilate changes created by this new Act, which primarily requires more direct laboratory/industry technical collaboration and calls for delegating the necessary authorities to effect these changes by laboratory directors. The primary challenge will be to reserve enough oversight to prevent major problems yet not hinder the processes leading to successful collaborative and licensing agreements.

THE PROPOSED PLAN

As a first initiative under the delegation, I will identify all the salient decisions and actions that must be addressed in the management processes to:

- Embody the spirit of the Act through seeking cooperative support for research projects funded by HHS laboratories that have been identified as having the potential to create new commercial products, and

- Identify, evaluate, protect and license other new technologies that have been created by HHS laboratories.

In all of our activities, I intend to provide leadership so that our employees do not lose sight of the fact that our laboratory employees and our entire management staff must adopt an institutionally new way of viewing our role in transfer of technology. I intend to see that all of our employees understand the major national importance of entirely new approaches and thought patterns. While focusing constantly on the end objectives and not impeding the effort, a number of new decisions and responsibilities must be identified within the context of these processes before they can be assigned within the PHS. For instance, in the new management process of obtaining cooperative support from the private sector, it will be necessary for the PHS to undertake the following activities:

- Identify those research projects and facilities which might attract private sector support.
- Develop a conduit for transfer of this information to the private sector.
- Establish support from the private sector through this conduit.

- Embody the spirit of the Act through seeking cooperative support for

- o Identify and resolve conflicts of interest or moral issues which might be associated with the private support.
- o Negotiate and approve the cooperative research and development agreements.
- o Execute the Agreements.
- o Conduct and monitor the cooperative program.
- o Report new technologies created under cooperative agreements.
- o Receive and distribute royalties based upon commercialization of new products.

Although within the PHS, we have a management process to identify, evaluate, protect and license new technologies created by our laboratories, the Executive Order requires consideration of decentralizing these responsibilities. The Act and the Executive Order also create new decisions in the process which must be identified and assigned. It is my intention to guard against the tendency to centralize these responsibilities because as was made clear in the deliberative process by the Congress, negotiations must be based on trust established between the technically knowledgeable individuals.

In light of the high priority that the White House has given the implementation of the Act, I intend to create a PHS Task Force with HHS participation to assist in implementing the Act. I will provide periodic progress reports to your office during implementation to assure open communications with you and the OS staff offices.

The identified management processes will require those elements of the PHS seeking delegations of authority to focus on the resources necessary to undertake the implementation of the Act. This exercise will more clearly determine where and under what terms assignments of responsibility should be made, including oversight.

It is clear that in addition to utilizing the task force as a means of identifying resources and recommending subdelegations, it will also be necessary to identify and develop policies to guide those management processes. The committee will identify and assist in developing these policies. For example, policy guidance may be needed to address:

- o Whether the inventor's royalty share should be higher than the 15 percent mandated by the Act.
- o How the residual share of royalties should be distributed.
- o Under what circumstances the use of other department's or the private sector's management services should be utilized.
- o Guidelines for defining conflicts of interest.
- o Guidelines for use in locating cooperative agreement partners.

In addition to the activites identified above, my office will proceed to develop administrative tools to facilitate the management processes. For instance it will be necessary to develop a model cooperative research and development agreement tailored to use by PHS laboratories and an invention awareness in technology management training program for laboratory scientists and their managers.

Other issues such as the need for a data system are not yet clear and need the review of the committee after responsibilities are affixed. Until they are determined, it will be unrealistic to attempt a definition of the needs for such a system. It will be of utmost importance that we do not delay implementation of the Act while waiting for the data systems development. After some experience, we will be better able to define our data systems needs.

My office will work very closely with the Department of Commerce which as assigned by the Act, is assisting others and coordinating the development of cooperative agreements and training programs. We will assure proper coordination with other agencies through a close relationship with the Department of Commerce.

SUMMARY

Your memorandum of March 20, 1987 asked the Deputy Assistant Secretary for Health and the Deputy Under Secretary to identify and present options for issues of concern to you and the Policy Council. A number of these issues will have to be developed by a committee which I will appoint upon approval of this proposal and whose deliberations will be accomplished within 30 days. I share the concern of the Policy Council over the need for a well-considered set of policies. I want to implement the Act in a timely manner consistant with the intent of the Administration and the Congress.

I recommend that the Secretary issue a policy statement calling for the vigorous implementation of the Act. This would show support for the legislation and responsiveness to the intent of the Executive Order being drafted by OMB. This statement should be publicized, and distributed throughout the PHS scientific community. (A proposed statement for Secretarial signature is attached at Tab A.)

Because PHS is the only OPDIV with HHS that carries on activities directly affected by this Act, I am asking that the Secretary delegate to me the authorities necessary to implement the Act. I plan to report to him periodically on PHS activities related to the Act. The necessary delegation papers (the same as those originally tranmsitted to OS) are attached to this memo (Tab B) for you to transmit to the Secretary for his signature if you approve of the plan I am proposing below.

If you approve this proposed plan, please transmit the Secretarial statement and the Delegations of Authority to the Secretary for his signature. I will ask the Deputy Assistant Secretary for Health to undertake implementation immediately.

Robert E. Windom, M.D.

Attachments

TAB A

THE SECRETARY OF HEALTH AND HUMAN SERVICES
WASHINGTON, D.C. 20201

MEMORANDUM TO: Assistant Secretary for Health

SUBJECT: Implementation of the Federal Technology Transfer Act of 1986

I wholeheartedly support the President's aim of vigorously implementing the Technology Transfer Act of 1986. This Act promotes the use of new knowledge from the research laboratory to develop new products with potential application in the private as well as the public sectors. It offers new incentives to Government scientists and industry to participate in this process.

I am directing the Public Health Service, the sole Operating Division in HHS with research laboratories, to vigorously implement the new law by entering into collaborative arrangements with the private sector and arranging for the marketing of technological innovations made by PHS scientists. Accordingly, I am delegating to you authority to carry out the major provisions of the Act.

Under your leadership, I know that PHS scientists will respond enthusiastically to the purpose as well as the opportunity created by this important legislation. Please inform PHS personnel of my interest and apprise me periodically of your progress in carrying out the Act.

Otis R. Bowen, M.D.
Secretary

TAB B