



UNITED STATES DEPARTMENT OF COMMERCE  
The Assistant Secretary for Productivity,  
Technology and Innovation  
Washington, D.C. 20230  
(202) 377-1984

MAR 18 1985

Honorable Mary Ann Gilleece  
Deputy Under Secretary of Defense  
(Acquisition Management)  
Pentagon, Room 3E144  
Washington, D. C. 20301

Dear Ms. Gilleece:

I have received the joint letter of March 4, 1985, concerning the efforts of the Federal Coordinating Council on Science, Engineering and Technology (FCCSET) Committee on Intellectual Property to develop a policy framework within which more detailed Government procurement and assistance regulations dealing with technical data would be drafted and evaluated. As you recall, this effort was initiated at the request of Dr. Keyworth, the President's Science Advisor, and I am enclosing a copy of his original request.

This effort is not intended to conflict with or in any way limit the Federal Acquisition Regulation (FAR) authorities of the National Aeronautics and Space Administration (NASA), the Department of Defense (DOD), and the General Services Administration (GSA). However, as I trust you agree, the FAR is written against a backdrop of statutory and administrative policies that are often set outside the FAR system as such. For example, the FAR patent provisions must conform to the President's Memorandum and applicable statutes, including Chapter 18 of Title 35 and regulations issued thereunder. Similarly, if FCCSET or another higher authority can reach agreement on basic technical data principles, there would appear to be no reason why the FAR drafters should not be expected to conform the FAR to those principles.

The concerns expressed in Dr. Keyworth's letter remain valid. For years it has proven impossible to develop Federal Procurement Regulations (FPR) or FAR coverage in the technical data area for the civilian agencies. And there have been significant differences in the approaches adopted by DOD, NASA, Department of Energy (DOE), and other agencies that have issued regulations or other policy directives. We believe a major reason for this is the failure to reach agreement on basic objectives and principles.

Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."

Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.

# DRAFT

## Government Data Policy Statement (Revised 3/27/85)

This statement provides guidance concerning the acquisition of technical data and software under government grants and contracts, except prime contracts for the operation of government-owned research or production facilities. However, it applies to subcontracts under such contracts. It is intended to (i) provide agencies with the flexibility to acquire technical data and software needed to fulfill their missions (ii) avoid unnecessary costs that result from the ordering of unneeded technical data; (iii) encourage the commercialization of new products and processes by contractors through the protection of technical data; and (iv) encourage the most qualified commercial concerns to participate in government research and development programs. It does not affect the classification of technical data and software for national security purposes.

### Section 1. Definitions. As used in this Statement--

(a) "technical data" means recorded information of a scientific or technical nature. It does not include software or financial, administrative, cost and pricing, management data, and other information incidental to contract administration;

(b) "manufacturing data" means technical data and software used for the manufacture of a product or performance of a process on a commercial scale;

(c) The term "contract" includes subcontracts and the term "contractor" includes subcontractors; and

(d) "software" means computer programs, computer data bases, and documentation thereof.

Section 2. Treatment of Proposals. Proposals that have not been incorporated in an award shall be treated as confidential and not disclosed outside the government without the submitter's permission except for evaluation purposes. Parts of proposals that are incorporated in awards and which contain trade secrets or commercial or financial information shall also be treated as confidential if properly marked. Agencies shall not discriminate against marked proposals.

Section 3. Scope of Data Rights Clauses. Technical data delivery requirements should normally be fully set out at the time of contracting, but deferred ordering provisions may be used to add additional deliverables. Any rights which the government obtains to technical data will be limited to rights in data specifically required to be delivered or prepared.

Section 4. Supply Contracts. Agencies procuring standard commercial products may obtain technical data necessary for operation, maintenance or repair but not for reprocurement purposes. Notwithstanding, manufacturing data should not normally be sought.

Section 5. Engineering Development Contracts. Contracts for engineering development should be structured to prevent the disclosure of proprietary technical data related to commercial products or processes developed at private expense by contractors. For example, agencies should normally accept form, fit, and function data in lieu of manufacturing data. Or, if manufacturing data is needed, the contractor shall be allowed to mark as proprietary any data that relates to commercial products or processes developed at private expense; and the right of the government to use and disclose the data shall be specified in the contract, and shall not include the right to use the data for reprocurement purposes (except for Defense Department contracts to which 10 USC 2320(c) is applied). Use of deferred delivery provisions should also be considered. A competitive procurement of an item developed under an engineering development contract should not include in the solicitation any proprietary manufacturing data that relates to a product or process developed at private expense by a contractor which is offered or to be offered for sale commercially by the contractor (except when 10 USC 2320(c) was applied to such data).

Any technical data delivered under an engineering development contract that relates to an item developed wholly under the contract shall be taken without restrictions if competitive acquisition of the item is anticipated. When competitive acquisition is not anticipated, the contractor will be allowed to retain ownership of any such data delivered, and the agency shall reserve an unrestricted, royalty-free right to use or have its contractors use the technical data for governmental purposes (excluding publication outside the government). However, if mission needs require and this is consistent with PL 98-525 or 577, agencies may also acquire publication and other rights. Other technical data not related directly to items developed under the contract normally shall be taken without restrictions.

Section 6. Contracts for Basic and Applied Research. Agencies will normally take technical data delivered under a basic or applied research contract with the unlimited right to use and publish such data, subject to any other provisions of the contract related to inventions and patents. However, if the research involves a contractor's privately developed products or processes or if it is otherwise agreed to by the parties, proprietary data of the contractor shall be protected.

Section 7. Assistance Awards. Agencies normally should not require delivery of technical data under grants or cooperative agreements except as necessary to verify the awardee's performance. The awardee normally will be allowed to retain all

rights in technical data delivered or produced under such awards, including the right to publish and/or assert copyright, although the agency may acquire a nonexclusive, royalty-free, and worldwide license to use such technical data that is delivered or published by the awardee for internal government purposes. When considered necessary to meet program objectives or statutory requirements, agencies may also (i) reserve the right to publish technical data delivered under a grant or cooperative agreement if the awardee fails to publish the results of the research within a reasonable time and/or (ii) expand the government's license to cover State and local governments.

Section 8. Software. Unless its delivery is specifically required, agencies shall not normally acquire rights in software generated under contracts or grants. Delivery of software shall not normally be required unless a purpose of the award is the creation of software. If software has commercial potential, agencies should normally accept license rights in lieu of ownership; and consideration should be given to allowing software documentation to be maintained on the contractor's premises.

When an agency acquires existing proprietary software, it shall accept appropriate conditions limiting its right to use and disclose the software. This includes cases when proprietary software is modified to accommodate particular agency needs.

Software within the definition of "manufacturing data" at section 1(b) is subject to sections 3-7 and not this section.

There is also legitimate concern whether existing regulations give sufficient weight to the policy objectives of this Administration. In particular, this Administration is strongly committed to the principle that private investment and development of Government supported research should be encouraged--as evidenced by the issuance of the President's 1983 Memorandum on Government Patent Policy.

Because of the obvious interest your agency has in technical data issues, we hope that you will continue to provide input and comments during the development of the Statement.

Sincerely,

(signed)  
Bruce Merrifield

D. Bruce Merrifield

Attachment

cc: Honorable George A. Keyworth II (White House)  
Dr. Andrew Pettifor (OSTP)  
Mr. Allan Beres (GSA)  
Mr. Stuart J. Evans (NASA)

*NR*  
OPTI/FTMP/Norm Latker/Jesse Lasken/rh 3/14/85  
bc: Dr. Merrifield  
Egils Milbergs  
Dr. Williams  
Norm Latker  
Chron  
Read

THE WHITE HOUSE

WASHINGTON

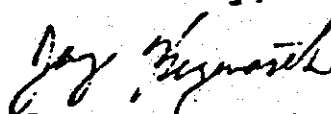
March 19, 1984

Dear Bruce:

The allocation of rights to various technical data, developed in the performance of government contracts, is an issue with significant implications for future government-industry relationships. It is driven, for example, by the government's need to minimize the costs of the products and services it buys, as well as by industry's desire to maximize profits and maintain any competitive advantage. It is fundamental to the government's continued ability to obtain the services of the best of the private sector.

I believe that this is an issue of sufficient importance that any codification of the government's position on this issue, as in the technical data section of part 27 of the proposed Federal Acquisition Regulations, requires a thorough analysis and discussion by the various agencies, and by the private sector. I believe that the FCCSET Intellectual Property Committee would be an appropriate vehicle for examining the various kinds of technical data, for agreeing on the various government objectives in seeking access to, or protecting the proprietary nature of that data, and for developing the basis for an acceptable set of draft regulations for the government's rights to such data. Please keep me informed of your progress.

Yours truly,



G. A. Keyworth

Science Advisor to the President

Dr. D. Bruce Merrifield  
Assistant Secretary for Productivity,  
Technology and Innovation  
Department of Commerce  
Washington, D.C. 20230

RECEIVE

MAR 20 1984

D. BRUCE MERRIFIELD



Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."

Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.

# DRAFT

## Government Data Policy Statement (Revised 3/27/85)

This statement provides guidance concerning the acquisition of technical data and software under government grants and contracts, except prime contracts for the operation of government-owned research or production facilities. However, it applies to subcontracts under such contracts. It is intended to (i) provide agencies with the flexibility to acquire technical data and software needed to fulfill their missions (ii) avoid unnecessary costs that result from the ordering of unneeded technical data; (iii) encourage the commercialization of new products and processes by contractors through the protection of technical data; and (iv) encourage the most qualified commercial concerns to participate in government research and development programs. It does not affect the classification of technical data and software for national security purposes.

### Section 1. Definitions. As used in this Statement--

(a) "technical data" means recorded information of a scientific or technical nature. It does not include software or financial, administrative, cost and pricing, management data, and other information incidental to contract administration;

(b) "manufacturing data" means technical data and software used for the manufacture of a product or performance of a process on a commercial scale;

(c) The term "contract" includes subcontracts and the term "contractor" includes subcontractors; and

(d) "software" means computer programs, computer data bases, and documentation thereof.

Section 2. Treatment of Proposals. Proposals that have not been incorporated in an award shall be treated as confidential and not disclosed outside the government without the submitter's permission except for evaluation purposes. Parts of proposals that are incorporated in awards and which contain trade secrets or commercial or financial information shall also be treated as confidential if properly marked. Agencies shall not discriminate against marked proposals.

Section 3. Scope of Data Rights Clauses. Technical data delivery requirements should normally be fully set out at the time of contracting, but deferred ordering provisions may be used to add additional deliverables. Any rights which the government obtains to technical data will be limited to rights in data specifically required to be delivered or prepared.

Section 4. Supply Contracts. Agencies procuring standard commercial products may obtain technical data necessary for operation, maintenance or repair but not for reprocurement purposes. Notwithstanding, manufacturing data should not normally be sought.

Section 5. Engineering Development Contracts. Contracts for engineering development should be structured to prevent the disclosure of proprietary technical data related to commercial products or processes developed at private expense by contractors. For example, agencies should normally accept form, fit, and function data in lieu of manufacturing data. Or, if manufacturing data is needed, the contractor shall be allowed to mark as proprietary any data that relates to commercial products or processes developed at private expense; and the right of the government to use and disclose the data shall be specified in the contract, and shall not include the right to use the data for reprocurement purposes (except for Defense Department contracts to which 10 USC 2320(c) is applied). Use of deferred delivery provisions should also be considered. A competitive procurement of an item developed under an engineering development contract should not include in the solicitation any proprietary manufacturing data that relates to a product or process developed at private expense by a contractor which is offered or to be offered for sale commercially by the contractor (except when 10 USC 2320(c) was applied to such data).

Any technical data delivered under an engineering development contract that relates to an item developed wholly under the contract shall be taken without restrictions if competitive acquisition of the item is anticipated. When competitive acquisition is not anticipated, the contractor will be allowed to retain ownership of any such data delivered, and the agency shall reserve an unrestricted, royalty-free right to use or have its contractors use the technical data for governmental purposes (excluding publication outside the government). However, if mission needs require and this is consistent with PL 98-525 or 577, agencies may also acquire publication and other rights. Other technical data not related directly to items developed under the contract normally shall be taken without restrictions.

Section 6. Contracts for Basic and Applied Research. Agencies will normally take technical data delivered under a basic or applied research contract with the unlimited right to use and publish such data, subject to any other provisions of the contract related to inventions and patents. However, if the research involves a contractor's privately developed products or processes or if it is otherwise agreed to by the parties, proprietary data of the contractor shall be protected.

Section 7. Assistance Awards. Agencies normally should not require delivery of technical data under grants or cooperative agreements except as necessary to verify the awardee's performance. The awardee normally will be allowed to retain all

rights in technical data delivered or produced under such awards, including the right to publish and/or assert copyright, although the agency may acquire a nonexclusive, royalty-free, and worldwide license to use such technical data that is delivered or published by the awardee for internal government purposes. When considered necessary to meet program objectives or statutory requirements, agencies may also (i) reserve the right to publish technical data delivered under a grant or cooperative agreement if the awardee fails to publish the results of the research within a reasonable time and/or (ii) expand the government's license to cover State and local governments.

Section 8. Software. Unless its delivery is specifically required, agencies shall not normally acquire rights in software generated under contracts or grants. Delivery of software shall not normally be required unless a purpose of the award is the creation of software. If software has commercial potential, agencies should normally accept license rights in lieu of ownership; and consideration should be given to allowing software documentation to be maintained on the contractor's premises.

When an agency acquires existing proprietary software, it shall accept appropriate conditions limiting its right to use and disclose the software. This includes cases when proprietary software is modified to accommodate particular agency needs.

Software within the definition of "manufacturing data" at section 1(b) is subject to sections 3-7 and not this section.

Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."

Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.



UNITED STATES DEPARTMENT OF COMMERCE  
The Assistant Secretary for Productivity,  
Technology and Innovation  
Washington, D.C. 20230

(202) 377-1984

MAR 18 1985

Honorable Mary Ann Gilleece  
Deputy Under Secretary of Defense  
(Acquisition Management)  
Pentagon, Room 3E144  
Washington, D. C. 20301

Dear Ms. Gilleece:

I have received the joint letter of March 4, 1985, concerning the efforts of the Federal Coordinating Council on Science, Engineering and Technology (FCCSET) Committee on Intellectual Property to develop a policy framework within which more detailed Government procurement and assistance regulations dealing with technical data would be drafted and evaluated. As you recall, this effort was initiated at the request of Dr. Keyworth, the President's Science Advisor, and I am enclosing a copy of his original request.

This effort is not intended to conflict with or in any way limit the Federal Acquisition Regulation (FAR) authorities of the National Aeronautics and Space Administration (NASA), the Department of Defense (DOD), and the General Services Administration (GSA). However, as I trust you agree, the FAR is written against a backdrop of statutory and administrative policies that are often set outside the FAR system as such. For example, the FAR patent provisions must conform to the President's Memorandum and applicable statutes, including Chapter 18 of Title 35 and regulations issued thereunder. Similarly, if FCCSET or another higher authority can reach agreement on basic technical data principles, there would appear to be no reason why the FAR drafters should not be expected to conform the FAR to those principles.

The concerns expressed in Dr. Keyworth's letter remain valid. For years it has proven impossible to develop Federal Procurement Regulations (FPR) or FAR coverage in the technical data area for the civilian agencies. And there have been significant differences in the approaches adopted by DOD, NASA, Department of Energy (DOE), and other agencies that have issued regulations or other policy directives. We believe a major reason for this is the failure to reach agreement on basic objectives and principles.



There is also legitimate concern whether existing regulations give sufficient weight to the policy objectives of this Administration. In particular, this Administration is strongly committed to the principle that private investment and development of Government supported research should be encouraged--as evidenced by the issuance of the President's 1983 Memorandum on Government Patent Policy.

Because of the obvious interest your agency has in technical data issues, we hope that you will continue to provide input and comments during the development of the Statement.

Sincerely,

(signed)  
Bruce Merrifield

D. Bruce Merrifield

Attachment

cc: Honorable George A. Keyworth II (White House)  
Dr. Andrew Pettifor (OSTP)  
Mr. Allan Beres (GSA)  
Mr. Stuart J. Evans (NASA)

OPTI/FTMP/Norm Latker/Jesse Lasken/rh 3/14/85  
bc: Dr. Merrifield  
Egils Milbergs  
Dr. Williams  
Norm Latker  
Chron  
Read

THE WHITE HOUSE

WASHINGTON

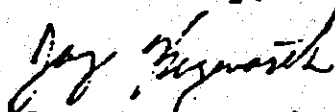
March 19, 1984

Dear Bruce:

The allocation of rights to various technical data, developed in the performance of government contracts, is an issue with significant implications for future government-industry relationships. It is driven, for example, by the government's need to minimize the costs of the products and services it buys, as well as by industry's desire to maximize profits and maintain any competitive advantage. It is fundamental to the government's continued ability to obtain the services of the best of the private sector.

I believe that this is an issue of sufficient importance that any codification of the government's position on this issue, as in the technical data section of part 27 of the proposed Federal Acquisition Regulations, requires a thorough analysis and discussion by the various agencies, and by the private sector. I believe that the FCCSET Intellectual Property Committee would be an appropriate vehicle for examining the various kinds of technical data, for agreeing on the various government objectives in seeking access to, or protecting the proprietary nature of that data, and for developing the basis for an acceptable set of draft regulations for the government's rights to such data. Please keep me informed of your progress.

Yours truly,



G. A. Keyworth

Science Advisor to the President

Dr. D. Bruce Merrifield  
Assistant Secretary for Productivity,  
Technology and Innovation  
Department of Commerce  
Washington, D.C. 20230

RECEIVE

MAR 20 1984

D. BRUCE MERRIFIELD

# DRAFT

## Government Data Policy Statement (Revised 3/27/85)

This statement provides guidance concerning the acquisition of technical data and software under government grants and contracts, except prime contracts for the operation of government-owned research or production facilities. However, it applies to subcontracts under such contracts. It is intended to (i) provide agencies with the flexibility to acquire technical data and software needed to fulfill their missions (ii) avoid unnecessary costs that result from the ordering of unneeded technical data; (iii) encourage the commercialization of new products and processes by contractors through the protection of technical data; and (iv) encourage the most qualified commercial concerns to participate in government research and development programs. It does not affect the classification of technical data and software for national security purposes.

### Section 1. Definitions. As used in this Statement--

(a) "technical data" means recorded information of a scientific or technical nature. It does not include software or financial, administrative, cost and pricing, management data, and other information incidental to contract administration;

(b) "manufacturing data" means technical data and software used for the manufacture of a product or performance of a process on a commercial scale;

(c) The term "contract" includes subcontracts and the term "contractor" includes subcontractors; and

(d) "software" means computer programs, computer data bases, and documentation thereof.

Section 2. Treatment of Proposals. Proposals that have not been incorporated in an award shall be treated as confidential and not disclosed outside the government without the submitter's permission except for evaluation purposes. Parts of proposals that are incorporated in awards and which contain trade secrets or commercial or financial information shall also be treated as confidential if properly marked. Agencies shall not discriminate against marked proposals.

Section 3. Scope of Data Rights Clauses. Technical data delivery requirements should normally be fully set out at the time of contracting, but deferred ordering provisions may be used to add additional deliverables. Any rights which the government obtains to technical data will be limited to rights in data specifically required to be delivered or prepared.

Section 4. Supply Contracts. Agencies procuring standard commercial products may obtain technical data necessary for operation, maintenance or repair but not for reprocurement purposes. Notwithstanding, manufacturing data should not normally be sought.

Section 5. Engineering Development Contracts. Contracts for engineering development should be structured to prevent the disclosure of proprietary technical data related to commercial products or processes developed at private expense by contractors. For example, agencies should normally accept form, fit, and function data in lieu of manufacturing data. Or, if manufacturing data is needed, the contractor shall be allowed to mark as proprietary any data that relates to commercial products or processes developed at private expense; and the right of the government to use and disclose the data shall be specified in the contract, and shall not include the right to use the data for reprocurement purposes (except for Defense Department contracts to which 10 USC 2320(c) is applied). Use of deferred delivery provisions should also be considered. A competitive procurement of an item developed under an engineering development contract should not include in the solicitation any proprietary manufacturing data that relates to a product or process developed at private expense by a contractor which is offered or to be offered for sale commercially by the contractor (except when 10 USC 2320(c) was applied to such data).

Any technical data delivered under an engineering development contract that relates to an item developed wholly under the contract shall be taken without restrictions if competitive acquisition of the item is anticipated. When competitive acquisition is not anticipated, the contractor will be allowed to retain ownership of any such data delivered, and the agency shall reserve an unrestricted, royalty-free right to use or have its contractors use the technical data for governmental purposes (excluding publication outside the government). However, if mission needs require and this is consistent with PL 98-525 or 577, agencies may also acquire publication and other rights. Other technical data not related directly to items developed under the contract normally shall be taken without restrictions.

Section 6. Contracts for Basic and Applied Research. Agencies will normally take technical data delivered under a basic or applied research contract with the unlimited right to use and publish such data, subject to any other provisions of the contract related to inventions and patents. However, if the research involves a contractor's privately developed products or processes or if it is otherwise agreed to by the parties, proprietary data of the contractor shall be protected.

Section 7. Assistance Awards. Agencies normally should not require delivery of technical data under grants or cooperative agreements except as necessary to verify the awardee's performance. The awardee normally will be allowed to retain all

rights in technical data delivered or produced under such awards, including the right to publish and/or assert copyright, although the agency may acquire a nonexclusive, royalty-free, and worldwide license to use such technical data that is delivered or published by the awardee for internal government purposes. When considered necessary to meet program objectives or statutory requirements, agencies may also (i) reserve the right to publish technical data delivered under a grant or cooperative agreement if the awardee fails to publish the results of the research within a reasonable time and/or (ii) expand the government's license to cover State and local governments.

Section 8. Software. Unless its delivery is specifically required, agencies shall not normally acquire rights in software generated under contracts or grants. Delivery of software shall not normally be required unless a purpose of the award is the creation of software. If software has commercial potential, agencies should normally accept license rights in lieu of ownership; and consideration should be given to allowing software documentation to be maintained on the contractor's premises.

When an agency acquires existing proprietary software, it shall accept appropriate conditions limiting its right to use and disclose the software. This includes cases when proprietary software is modified to accommodate particular agency needs.

Software within the definition of "manufacturing data" at section 1(b) is subject to sections 3-7 and not this section.

Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."

Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.

Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."



Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.

# DRAFT

## Government Data Policy Statement (Revised 3/27/85)

This statement provides guidance concerning the acquisition of technical data and software under government grants and contracts, except prime contracts for the operation of government-owned research or production facilities. However, it applies to subcontracts under such contracts. It is intended to (i) provide agencies with the flexibility to acquire technical data and software needed to fulfill their missions (ii) avoid unnecessary costs that result from the ordering of unneeded technical data; (iii) encourage the commercialization of new products and processes by contractors through the protection of technical data; and (iv) encourage the most qualified commercial concerns to participate in government research and development programs. It does not affect the classification of technical data and software for national security purposes.

### Section 1. Definitions. As used in this Statement--

(a) "technical data" means recorded information of a scientific or technical nature. It does not include software or financial, administrative, cost and pricing, management data, and other information incidental to contract administration;

(b) "manufacturing data" means technical data and software used for the manufacture of a product or performance of a process on a commercial scale;

(c) The term "contract" includes subcontracts and the term "contractor" includes subcontractors; and

(d) "software" means computer programs, computer data bases, and documentation thereof.

Section 2. Treatment of Proposals. Proposals that have not been incorporated in an award shall be treated as confidential and not disclosed outside the government without the submitter's permission except for evaluation purposes. Parts of proposals that are incorporated in awards and which contain trade secrets or commercial or financial information shall also be treated as confidential if properly marked. Agencies shall not discriminate against marked proposals.

Section 3. Scope of Data Rights Clauses. Technical data delivery requirements should normally be fully set out at the time of contracting, but deferred ordering provisions may be used to add additional deliverables. Any rights which the government obtains to technical data will be limited to rights in data specifically required to be delivered or prepared.

Section 4. Supply Contracts. Agencies procuring standard commercial products may obtain technical data necessary for operation, maintenance or repair but not for reprocurement purposes. Notwithstanding, manufacturing data should not normally be sought.

Section 5. Engineering Development Contracts. Contracts for engineering development should be structured to prevent the disclosure of proprietary technical data related to commercial products or processes developed at private expense by contractors. For example, agencies should normally accept form, fit, and function data in lieu of manufacturing data. Or, if manufacturing data is needed, the contractor shall be allowed to mark as proprietary any data that relates to commercial products or processes developed at private expense; and the right of the government to use and disclose the data shall be specified in the contract, and shall not include the right to use the data for reprocurement purposes (except for Defense Department contracts to which 10 USC 2320(c) is applied). Use of deferred delivery provisions should also be considered. A competitive procurement of an item developed under an engineering development contract should not include in the solicitation any proprietary manufacturing data that relates to a product or process developed at private expense by a contractor which is offered or to be offered for sale commercially by the contractor (except when 10 USC 2320(c) was applied to such data).

Any technical data delivered under an engineering development contract that relates to an item developed wholly under the contract shall be taken without restrictions if competitive acquisition of the item is anticipated. When competitive acquisition is not anticipated, the contractor will be allowed to retain ownership of any such data delivered, and the agency shall reserve an unrestricted, royalty-free right to use or have its contractors use the technical data for governmental purposes (excluding publication outside the government). However, if mission needs require and this is consistent with PL 98-525 or 577, agencies may also acquire publication and other rights. Other technical data not related directly to items developed under the contract normally shall be taken without restrictions.

Section 6. Contracts for Basic and Applied Research. Agencies will normally take technical data delivered under a basic or applied research contract with the unlimited right to use and publish such data, subject to any other provisions of the contract related to inventions and patents. However, if the research involves a contractor's privately developed products or processes or if it is otherwise agreed to by the parties, proprietary data of the contractor shall be protected.

Section 7. Assistance Awards. Agencies normally should not require delivery of technical data under grants or cooperative agreements except as necessary to verify the awardee's performance. The awardee normally will be allowed to retain all

rights in technical data delivered or produced under such awards, including the right to publish and/or assert copyright, although the agency may acquire a nonexclusive, royalty-free, and worldwide license to use such technical data that is delivered or published by the awardee for internal government purposes. When considered necessary to meet program objectives or statutory requirements, agencies may also (i) reserve the right to publish technical data delivered under a grant or cooperative agreement if the awardee fails to publish the results of the research within a reasonable time and/or (ii) expand the government's license to cover State and local governments.

Section 8. Software. Unless its delivery is specifically required, agencies shall not normally acquire rights in software generated under contracts or grants. Delivery of software shall not normally be required unless a purpose of the award is the creation of software. If software has commercial potential, agencies should normally accept license rights in lieu of ownership; and consideration should be given to allowing software documentation to be maintained on the contractor's premises.

When an agency acquires existing proprietary software, it shall accept appropriate conditions limiting its right to use and disclose the software. This includes cases when proprietary software is modified to accommodate particular agency needs.

Software within the definition of "manufacturing data" at section 1(b) is subject to sections 3-7 and not this section.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Productivity,**  
**Technology and Innovation**  
Washington, D.C. 20230  
(202) 377-1984

MAR 18 1985

Honorable Mary Ann Gilleece  
Deputy Under Secretary of Defense  
(Acquisition Management)  
Pentagon, Room 3E144  
Washington, D. C. 20301

Dear Ms. Gilleece:

I have received the joint letter of March 4, 1985, concerning the efforts of the Federal Coordinating Council on Science, Engineering and Technology (FCCSET) Committee on Intellectual Property to develop a policy framework within which more detailed Government procurement and assistance regulations dealing with technical data would be drafted and evaluated. As you recall, this effort was initiated at the request of Dr. Keyworth, the President's Science Advisor, and I am enclosing a copy of his original request.

This effort is not intended to conflict with or in any way limit the Federal Acquisition Regulation (FAR) authorities of the National Aeronautics and Space Administration (NASA), the Department of Defense (DOD), and the General Services Administration (GSA). However, as I trust you agree, the FAR is written against a backdrop of statutory and administrative policies that are often set outside the FAR system as such. For example, the FAR patent provisions must conform to the President's Memorandum and applicable statutes, including Chapter 18 of Title 35 and regulations issued thereunder. Similarly, if FCCSET or another higher authority can reach agreement on basic technical data principles, there would appear to be no reason why the FAR drafters should not be expected to conform the FAR to those principles.

The concerns expressed in Dr. Keyworth's letter remain valid. For years it has proven impossible to develop Federal Procurement Regulations (FPR) or FAR coverage in the technical data area for the civilian agencies. And there have been significant differences in the approaches adopted by DOD, NASA, Department of Energy (DOE), and other agencies that have issued regulations or other policy directives. We believe a major reason for this is the failure to reach agreement on basic objectives and principles.

There is also legitimate concern whether existing regulations give sufficient weight to the policy objectives of this Administration. In particular, this Administration is strongly committed to the principle that private investment and development of Government supported research should be encouraged--as evidenced by the issuance of the President's 1983 Memorandum on Government Patent Policy.

Because of the obvious interest your agency has in technical data issues, we hope that you will continue to provide input and comments during the development of the Statement.

Sincerely,

(signed)  
Bruce Merrifield

D. Bruce Merrifield

Attachment

cc: Honorable George A. Keyworth II (White House)  
Dr. Andrew Pettifor (OSTP)  
Mr. Allan Beres (GSA)  
Mr. Stuart J. Evans (NASA)

*NR*  
OPTI/FTMP/Norm Latker/Jesse Lasken/rh 3/14/85  
bc: Dr. Merrifield  
Egils Milbergs  
Dr. Williams  
Norm Latker  
Chron  
Read

THE WHITE HOUSE

WASHINGTON

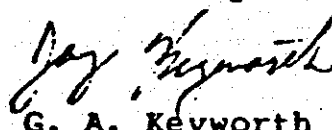
March 19, 1984

Dear Bruce:

The allocation of rights to various technical data, developed in the performance of government contracts, is an issue with significant implications for future government-industry relationships. It is driven, for example, by the government's need to minimize the costs of the products and services it buys, as well as by industry's desire to maximize profits and maintain any competitive advantage. It is fundamental to the government's continued ability to obtain the services of the best of the private sector.

I believe that this is an issue of sufficient importance that any codification of the government's position on this issue, as in the technical data section of part 27 of the proposed Federal Acquisition Regulations, requires a thorough analysis and discussion by the various agencies, and by the private sector. I believe that the FCCSET Intellectual Property Committee would be an appropriate vehicle for examining the various kinds of technical data, for agreeing on the various government objectives in seeking access to, or protecting the proprietary nature of that data, and for developing the basis for an acceptable set of draft regulations for the government's rights to such data. Please keep me informed of your progress.

Yours truly,



G. A. Keyworth

Science Advisor to the President

Dr. D. Bruce Merrifield  
Assistant Secretary for Productivity,  
Technology and Innovation  
Department of Commerce  
Washington, D.C. 20230

RECEIVE

MAR 20 1984

D. BRUCE MERRIFIELD

# DRAFT

## Government Data Policy Statement (Revised 3/27/85)

This statement provides guidance concerning the acquisition of technical data and software under government grants and contracts, except prime contracts for the operation of government-owned research or production facilities. However, it applies to subcontracts under such contracts. It is intended to (i) provide agencies with the flexibility to acquire technical data and software needed to fulfill their missions (ii) avoid unnecessary costs that result from the ordering of unneeded technical data; (iii) encourage the commercialization of new products and processes by contractors through the protection of technical data; and (iv) encourage the most qualified commercial concerns to participate in government research and development programs. It does not affect the classification of technical data and software for national security purposes.

### Section 1. Definitions. As used in this Statement--

(a) "technical data" means recorded information of a scientific or technical nature. It does not include software or financial, administrative, cost and pricing, management data, and other information incidental to contract administration;

(b) "manufacturing data" means technical data and software used for the manufacture of a product or performance of a process on a commercial scale;

(c) The term "contract" includes subcontracts and the term "contractor" includes subcontractors; and

(d) "software" means computer programs, computer data bases, and documentation thereof.

Section 2. Treatment of Proposals. Proposals that have not been incorporated in an award shall be treated as confidential and not disclosed outside the government without the submitter's permission except for evaluation purposes. Parts of proposals that are incorporated in awards and which contain trade secrets or commercial or financial information shall also be treated as confidential if properly marked. Agencies shall not discriminate against marked proposals.

Section 3. Scope of Data Rights Clauses. Technical data delivery requirements should normally be fully set out at the time of contracting, but deferred ordering provisions may be used to add additional deliverables. Any rights which the government obtains to technical data will be limited to rights in data specifically required to be delivered or prepared.



Section 4. Supply Contracts. Agencies procuring standard commercial products may obtain technical data necessary for operation, maintenance or repair but not for reprourement purposes. Notwithstanding, manufacturing data should not normally be sought.

Section 5. Engineering Development Contracts. Contracts for engineering development should be structured to prevent the disclosure of proprietary technical data related to commercial products or processes developed at private expense by contractors. For example, agencies should normally accept form, fit, and function data in lieu of manufacturing data. Or, if manufacturing data is needed, the contractor shall be allowed to mark as proprietary any data that relates to commercial products or processes developed at private expense; and the right of the government to use and disclose the data shall be specified in the contract, and shall not include the right to use the data for reprourement purposes (except for Defense Department contracts to which 10 USC 2320(c) is applied). Use of deferred delivery provisions should also be considered. A competitive procurement of an item developed under an engineering development contract should not include in the solicitation any proprietary manufacturing data that relates to a product or process developed at private expense by a contractor which is offered or to be offered for sale commercially by the contractor (except when 10 USC 2320(c) was applied to such data).

Any technical data delivered under an engineering development contract that relates to an item developed wholly under the contract shall be taken without restrictions if competitive acquisition of the item is anticipated. When competitive acquisition is not anticipated, the contractor will be allowed to retain ownership of any such data delivered, and the agency shall reserve an unrestricted, royalty-free right to use or have its contractors use the technical data for governmental purposes (excluding publication outside the government). However, if mission needs require and this is consistent with PL 98-525 or 577, agencies may also acquire publication and other rights. Other technical data not related directly to items developed under the contract normally shall be taken without restrictions.

Section 6. Contracts for Basic and Applied Research. Agencies will normally take technical data delivered under a basic or applied research contract with the unlimited right to use and publish such data, subject to any other provisions of the contract related to inventions and patents. However, if the research involves a contractor's privately developed products or processes or if it is otherwise agreed to by the parties, proprietary data of the contractor shall be protected.

Section 7. Assistance Awards. Agencies normally should not require delivery of technical data under grants or cooperative agreements except as necessary to verify the awardee's performance. The awardee normally will be allowed to retain all

rights in technical data delivered or produced under such awards, including the right to publish and/or assert copyright, although the agency may acquire a nonexclusive, royalty-free, and worldwide license to use such technical data that is delivered or published by the awardee for internal government purposes. When considered necessary to meet program objectives or statutory requirements, agencies may also (i) reserve the right to publish technical data delivered under a grant or cooperative agreement if the awardee fails to publish the results of the research within a reasonable time and/or (ii) expand the government's license to cover State and local governments.

Section 8. Software. Unless its delivery is specifically required, agencies shall not normally acquire rights in software generated under contracts or grants. Delivery of software shall not normally be required unless a purpose of the award is the creation of software. If software has commercial potential, agencies should normally accept license rights in lieu of ownership; and consideration should be given to allowing software documentation to be maintained on the contractor's premises.

When an agency acquires existing proprietary software, it shall accept appropriate conditions limiting its right to use and disclose the software. This includes cases when proprietary software is modified to accommodate particular agency needs.

Software within the definition of "manufacturing data" at section 1(b) is subject to sections 3-7 and not this section.

Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."

Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.

Mr. Paolo Glissentti  
President  
Montedison U.S.A., Incorporated  
1114 Avenue of the Americas  
New York, NY 10036

Mr. Fred Middleton  
Morgan Stanley Ventures, Inc.  
101 California Street  
San Francisco, CA 94111

Mr. Travis Marshall  
Senior Vice President,  
Director of Government Regulations  
Motorola Incorporated  
1303 East Algonquin Road  
Schaumburg, IL 60196

Mr. Robert W. Galvia  
Chairman and Chief Executive Officer  
Motorola Incorporated  
1303 East Algonquin Road  
Schaumburg, IL 60196

Mr. Daniel T. Kingsley  
National Venture Capital Association  
1655 North Fort Myer Drive  
Suite 700  
Arlington, VA 22209

Mr. Stanley Ebner  
Senior Vice President  
Northrop Corporation  
1000 Wilson Boulevard  
Suite 2300  
Arlington, VA 22209

Mr. Thomas V. Jones  
Chairman and Chief Executive Officer  
Northrop Corporation  
1840 Century Park East  
Los Angeles, CA 90067

Mr. S. J. Lukasik  
Vice President and Manager  
Research and Technology Center  
Northrop Corporation  
1840 Century Park East  
Los Angeles, CA 90067

Mr. Nicholas Clements  
Vice President  
Paine Webber Incorporated  
1285 Avenue of the Americas  
New York, NY 10019

Dr. Harry G. Pars  
Chairman  
H. G. Pars  
763 Concord Avenue  
Cambridge, MA 02138

Mr. Edmund T. Pratt, Jr.  
Chairman and Chief Executive Officer  
Pfizer, Incorporated  
235 East 42nd Street  
New York, NY 10017

Dr. Ronald L. Sampson  
Associate Director, Product Development  
Industrial Chemicals Division  
The Procter and Gamble Company  
Sharon Woods Technical Center  
11530 Reed Hartman Highway  
Cincinnati, OH 45241

Dr. Edwin Behrens  
Associate Director, Technical Affairs  
The Procter and Gamble Company  
801 18th Street, N. W.  
Suite 400  
Washington, D. C. 20006

Mr. Geoffrey Place  
Vice President, Research and Development  
Procter and Gamble Company  
301 East Sixth Street  
Cincinnati, OH 45202

Mr. Hugh McClung  
First Vice President  
Prudential Bache Securities, Inc.  
1290 Ridder Park Drive  
Suite 1  
San Jose, CA 95131

Mr. Thomas L. Phillips  
Chairman and Chief Executive Officer  
Raytheon Company  
141 Spring Street  
Lexington, MA 02173

Mr. Robert R. Frederick  
President and Chief Executive Officer  
RCA Corporation  
30 Rockefeller Plaza  
New York, NY 10020

Mr. Robert Anderson  
Chairman and Chief Executive Officer  
Rockwell International Corporation  
600 Grant Street  
Pittsburgh, PA 15219

Mr. A. David Silver  
Santa Fe Private Equity Fund  
524 Camino del Monte Sol  
Santa Fe, NM 87501

Mr. Daniel Nichols  
Vice President, Taxes  
Schering-Plough Corporation  
One Giralda Farms  
Post office Box 1000  
Madison, NJ 07904

Mr. Robert P. Luciano  
Chairman, President and Chief Executive Officer  
Schering-Plough Corporation  
One Giralda Farms  
Post Office Box 1000  
Madison, NJ 07904

Mr. Edward E. Telling  
Chairman and Chief Executive Officer  
Sears, Roebuck and Company  
Sears Tower  
Chicago, IL 60684

Mr. Randolph H. Aires  
Vice President  
Sears, Roebuck and Company  
633 Pennsylvania Avenue, N. W.  
Washington, D. C. 20004

Mr. Henry Wendt  
President and Chief Executive Officer  
SmithKline-Beckman Corporation  
One Franklin Plaza  
Philadelphia, PA 19101

Mr. Reznor I. Orr  
Director of Corporate Marketing  
Spire Corporation  
Patriots Park  
Bedford, MA 01730

Mr. Roger G. Little  
Chairman of the Board and Chief Executive Officer  
Spire Corporation  
Patriots Park  
Bedford, MA 01730

Mr. Donald Nordlund  
Chairman of the Board and  
Chief Executive Officer  
Staley Continental, Incorporated  
1 Continental Towers  
1701 Golf Road  
Rolling Meadows, IL 60008

Mr. Thomas V. Fischer  
Executive Vice President  
Industrial Products Group Operations  
A. E. Staley Manufacturing Co.  
2200 Eldorado Street  
Decatur, IL 62525



Ms. Susan Shay  
Director of Corporate Development  
Teknekron  
2118 Milvia Street  
Berkeley, CA 94704

Mr. Fred Cohen  
Chairman and Chief Executive Officer  
Tele Sciences, Incorporated  
124 Gaither Drive  
Mount Laurel, NJ 08504

Mr. John K. McKinley  
Chairman and Chief Executive Officer  
Texaco, Incorporated  
2000 Westchester Avenue  
White Plains, NY 10650

Mr. Alton W. Whitehouse, Jr.  
Chairman and Chief Executive Officer  
The Standard Oil Company of Ohio  
Midland Building  
Cleveland, OH 44115

Dr. Ruben Mettler  
Chairman and Chief Executive Officer  
TRW, Incorporated  
23555 Euclid Avenue  
Cleveland, OH 44117

Mr. Ralph K. Ungermann  
President and Chief Executive Officer  
Ungermann-Bass, Incorporated  
2560 Mission College Boulevard  
Santa Clara, CA 95050

Mr. Warren M. Anderson  
Chairman and Chief Executive Officer  
Union Carbide Corporation  
Old Ridgebury Road  
Danbury, CT 06817

Mr. James H. Evans  
Chairman  
Union Pacific Corporation  
345 Park Avenue  
New York, NY 10154

Mr. William S. Cook  
Chairman, President and  
Chief Executive Officer  
Union Pacific Company  
345 Park Avenue  
New York, NY 10154

Mr. Harry J. Gray  
Chairman and Chief Executive Officer  
United Technologies Corporation  
United Technologies Building  
Hartford, CT 06101

Mr. Scott R. Bayman  
Director of Corporate Strategic Planning  
United Technologies Corporation  
United Technologies Building  
Hartford, CT 06101

Mr. Latham L. Allison  
Vice President, Strategic Planning  
United Technologies Corporation  
United Technologies Building  
Hartford, CT 06101

Mr. Harold W. Paxton  
Vice President, Research  
U. S. Steel Corporation  
600 Grant Street  
Pittsburgh, PA 15230

Mr. David M. Roderick  
Chairman and Chief Executive Officer  
U. S. Steel Corporation  
600 Grant Street  
Pittsburgh, PA 15230

Mr. A. J. Stein  
Chairman and Chief Executive Officer  
VLSI Technology, Incorporated  
1101 McKay Drive  
San Jose, CA 95131

Mr. C. Clifford Roe  
Director, Strategic Programs and  
Research and Development  
VLSI Technology Incorporated  
1101 McKay Drive  
San Jose, CA 95131

Mr. Christopher Brody  
Managing Director  
Warburg, Pincus Capital Corporation  
277 Park Avenue  
New York, NY 10172

Mr. Thomas J. Murrin  
President  
Energy, Advanced Technology Group  
Westinghouse Electric Corporation  
Westinghouse Building, Gateway Center  
Stanwix and Fort Pitt. Boulevards  
Pittsburgh, PA 15222

Mr. Douglas D. Danforth  
Chairman of the Board and  
Chief Executive Officer  
Westinghouse Electric Corporation  
Westinghouse Building, Gateway Center  
Stanwix and Fort Pitt. Boulevards  
Pittsburgh, PA 15222

Dr. George E. Pake  
Group Vice President  
Research Engineering  
Xerox Corporation  
800 Long Ridge Road  
Stamford, CT 06904

Mr. David T. Kearns  
Chairman and Chief Executive Officer  
Xerox Corporation  
Post Office Box 1600  
Stamford, CT 06904

Mr. Peter C. McColough  
Chairman of the Board, Financial Division  
Xerox Corporation  
800 Long Ridge Road  
Stamford, CT 06904

Mr. Lester L. Colbert, Jr.  
Xidex Corporation  
5201 Patrick Henry Drive  
Santa Clara, CA 95050

Mr. Sidney Kulek  
President and Chief Executive Officer  
Xonic, Incorporated  
515 East Touhy Avenue  
Des Plaines, IL 60018

Dr. Stephen S. Yau  
President, AFIPS  
Northwestern University  
Department of Electrical Engineering and  
Computer Science  
2145 Sheridan Road  
Evanston, IL 60201

Mr. John Chester  
General Counsel  
National Science Foundation  
Room 501  
1800 G Street, N. W.  
Washington, D. C. 20550

Dr. Linda S. Wilson  
Vice President, Research  
University of Michigan  
4080 Fleming Building  
Ann Arbor, MI 48109

Dr. Donald S. Fredrickson  
President and Chief Executive Officer  
Howard Hughes Medical Institute  
7986 Old George Town Road  
Bethesda, MD 20814

Mr. David K. Kehl  
Legislative Director  
Office of the Republican Leader  
House of Representatives  
H-228 Capital Building  
Washington, D.C 20515

Dean Ann Friedlander  
Massachusetts Institute of Technology  
School of Humanities and Social Sciences  
77 Massachusetts Avenue  
Cambridge, MA 02139

Dr. Robert M. White  
President  
National Academy of Engineering  
2101 Connecticut Avenue, N. W.  
Washington, D. C. 20418

Dr. Ralph Landau  
Vice President  
National Academy of Engineering  
c/o Listowel, Inc.  
2 Park Avenue  
Suite 1525  
New York, NY 10016

Mr. Ken McLennon  
Committee for Economic Development  
477 Madison Avenue  
New York, NY 10022

Mr. Al Sweedler  
Office of Senator Jeff Bingaman  
502 Senate Hart Office Building  
Washington, D. C. 20510

Mr. Keith B. Keener  
Office of Senator Gary Hart  
237 Senate Russell Office Building  
Washington, D. C. 20510

Mr. John Holmfield  
House Committee on Science and Technology  
2321 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Thomas Ratchford  
Associate Executive Officer  
American Academy for the Advancement of Science  
1333 H Street, N. W.  
Washington, D. C. 20036

Mr. Q. T. Wiles  
Chairman  
ADAC Laboratories  
14900 Ventura Boulevard  
Sherman Oaks, CA 91403

Mr. William D. Carey  
Executive Officer  
American Association for the  
Advancement of Science  
1515 Massachusetts Avenue, NW  
Washington, D.C. 20005

Mr. Robert M. Rosenzweig  
President, Association of American  
Universities  
One Dupont Circle, N.W.  
Washington, D.C. 20036

Mr. Edward Barr  
President and Corporate Executive  
Courtdalds U.S. Developments, Inc.  
222 Bridge Plaza South  
Fort Lee, NJ 07024

Mr. James McGraw  
Chief Executive Officer  
Marion Laboratories  
9221 Ward Parkway  
Kansas City, MO 64114

Mr. Donald S. Beilman  
President  
Microelectronics Center of  
North Carolina  
P. O. Box 12889  
Research Triangle Park, NC 27709

Mr. Robert Dinnat  
Associate Technical Director  
U. S. Army Construction Engineering  
Research Laboratory  
P.O. Box 4005  
Champaign, IL 61820

Dr. Harvey Drucker  
Associate Laboratory Director for  
Biomedical & Environmental Research  
Argonne National Laboratory  
9700 South Cass Avenue  
Argonne, IL 60439

V 157  
Mr. Robert C. Ketcham  
General Counsel  
Committee on Science and Technology  
House of Representatives  
2321 Rayburn House Office Building  
Washington, D. C. 20515

Mr. James H. Turner  
Counsel  
Subcommittee on Science, Research  
and Technology  
U.S. House of Representatives  
2319 Rayburn House Office Building  
Washington, D. C. 20515

Ms. Maryanne Bach  
Minority Technical Consultant  
Subcommittee on Science, Research  
and Technology  
U.S. House of Representatives  
2320 Rayburn House Office Building  
Washington, D. C. 20515

Ms. Joyce G. Freiwald  
Minority Staff Director  
Committee on Science and Technology  
House of Representatives  
2320 Rayburn House Office Building  
Washington, D. C. 20515

Mr. James M. Le Munyon  
Legislative Assistant  
Office of Representative Ed Zschau  
429 Cannon House Office Building  
Washington, D. C. 20515

Mr. Bob Barker  
Administrative Assistant  
Office of Congressman Judd Gregg  
308 Cannon House Office Building  
Washington, D. C. 20515

Ms. Cassie Phillips  
Chief Counsel  
Subcommittee on Science, Technology  
and Space  
427 Hart Senate Office Building  
Washington, D. C. 20510

Mr. Steven J. Metalitz  
Staff Director  
Subcommittee on Patents, Copyrights  
and Trademarks  
137 Dirksen Senate Office Building  
Washington, D. C. 20510

Mr. Kenneth E. Mannella  
Counsel  
Subcommittee on Patents, Copyrights  
and Trademarks  
137 Dirksen Senate Office Building  
Washington, D. C. 20510

Ms. Janice A. Mays  
Professional Staff Member  
House Committee on Ways and Means  
1111 Longworth House Office Building  
Washington, D. C. 20515

Ms. Diane Oberhalman  
Legislative Assistant  
Office of Representative William Frenzel  
1026 Longworth House Office Building  
Washington, D. C. 20515

Ms. Barbara Pate  
Legislative Director  
Office of Representative J. J. Pickle  
242 Cannon House Office Building  
Washington, D. C. 20515

Mr. Thomas B. Dwyer  
Legislative Assistant  
Office of Senator John Danforth  
497 Russell Senate Office Building  
Washington, D. C. 20510



Mr. Jim Gould  
Legislative Assistant  
Office of Senator Lloyd Bentsen  
703 Hart Senate Office Building  
Washington, D. C. 20510

Eric P. Schellin, Esquire  
Attorney at Law  
2001 Jefferson Davis Highway  
Arlington, VA 22202

Mr. Edgar C. Harrell  
Special Assistant to the Administrator  
Agency for International Development  
Room 5942 NS  
Washington, D. C. 20523

Mr. Steve Davies  
Bureau of National Affairs, Inc.  
1231 25th Street, N. W.  
Suite 517  
Washington, D. C. 20037

Mr. Jeffrey Quinn  
Attorney Advisor  
Office of Tax Legislative Counsel  
U. S. Department of the Treasury  
15th and Pennsylvania Avenue, N. W.  
Washington, D. C. 20220

Mr. Michael F. Mohr  
Director of Capital, Energy and  
Productivity Division  
Office of Strategic Resources  
U. S. Department of Commerce  
Room H4525  
Washington, D. C. 20230

Mr. Lawrence S. Robertson  
1101 14th Street, N. W.  
8th Floor  
Washington, D. C. 20005

Honorable George P. Debakey  
Deputy Assistant Secretary  
for Science and Electronics  
Office of Trade Development  
International Trade Administration  
U. S. Department of Commerce  
Room H2007  
Washington, D. C. 20230

Honorable H. P. Goldfield  
Assistant Secretary for Trade Development  
International Trade Administration  
U. S. Department of Commerce  
Room H3832  
Washington, D. C. 20230

Mr. Ralph Oman  
Chief Counsel  
Subcommittee on Patents, Copyrights,  
and Trademarks  
137 Dirksen Senate Office Building  
Washington, D. C. 20510

Mr. Robert E. Feidler  
Chief Counsel  
Subcommittee on the Constitution  
328 Senate Hart Office Building  
Washington, D. C. 20510

Mr. John Podesta  
Legal Assistant  
Office of Senator Patrick J. Leahy  
433 Senate Russell Office Building  
Washington, D. C. 20510

*Handwritten mark*  
Ms. Carol Pompliano  
Subcommittee on Science, Research  
and Technology  
U.S. House of Representatives  
2319 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Patrick H. Windham  
Minority Staff  
Subcommittee on Science, Technology  
and Space  
566 Dirksen Senate Office Building  
Washington, D. C. 20510

Mr. Mark Herbst  
c/o Representative Stan Lundine  
2427 Rayburn House Office Building  
Washington, D. C. 20515

Mr. W. Michael Kitzmiller  
Staff Director  
Committee on Energy and Commerce  
House of Representatives  
2125 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Arnold I. Havens  
Minority Counsel and Staff Director  
Committee on Energy and Commerce  
House of Representatives  
2322 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Alan F. Coffey, Jr.  
Chief Minority Counsel  
Committee on the Judiciary  
House of Representatives  
B-351C Rayburn House Office Building  
Washington, D. C. 20515

Mr. Walter B. McCormick, Jr.  
General Counsel  
Committee on Commerce, Science,  
and Transportation  
United States Senate  
256 Senate Russell Office Building  
Washington, D. C. 20510

Mr. W. Allen Moore  
Chief Counsel and Staff Director  
Committee on Commerce, Science,  
and Transportation  
United States Senate  
256 Senate Russell Office Building  
Washington, D. C. 20510

Mr. Ralph B. Everett  
Minority Chief Counsel and  
Minority Staff Director  
Committee on Commerce, Science,  
and Transportation  
United States Senate  
554 Senate Dirksen Office Building  
Washington, D. C. 20510

Ms. Marguerite D. Ayers  
Director of Administration  
Committee on Commerce, Science,  
and Transportation  
United States Senate  
254 Senate Russell Office Building  
Washington, D. C. 20510

General Thomas M. Ryan, Jr.  
Chief Counsel  
Committee on Energy and Commerce  
House of Representatives  
2125 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Harold P. Hanson  
Executive Director  
Committee on Science and Technology  
House of Representatives  
2321 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Robert J. Short  
Chief Investigator  
Committee on the Judiciary  
United States Senate  
2226 Senate Dirksen Office Building  
Washington, D. C. 20510

Ms. Julie Scofield  
Legislative Assistant  
Office of Representative Stan Lundine  
2427 Rayburn House Office Building  
Washington, D. C. 20515

Mr. Thomas Sheahan, Executive Director  
Office of Energy Research  
Energy Research Advisory Board  
U. S. Department of Energy  
Routing Symbol ER-6  
Washington, D. C. 20585

Sent a copy of Mr. Frederick N. Khedouri ltr from Senator Dole  
Plus Energy List personnel

Niels Reimers

Dave Eden

Roger Ditzel

(Gay Keyworth)  
(Jim Long)

Gay Chin

Eugene Stark

Peg Bogosian

Philip V. Lydahl

Spencer L. Blaylock

Howard Bremer

William Ferguson

Gerald Fill

Jim Turner

Frank Lukasik

Bud Maraist

Gerald J. Mossinghoff

Andy Pettifor

Ed Springer

Len Rawicz

Catherine Miller

Barry Beringer

Anita Willis

Attachment #3

ATTENDEES AT THE 19  
BRADSON ENTREPRENEURSHIP  
CONFERENCE.

✓ Dr. Pier R. Abetti  
School of Management  
RPI  
Troy, NY 12181Pier

Timothy  
L.E. Gold

✓ Judy  
Timmons

Dr. David N. Allen  
Pennsylvania State University  
211 Burrowes Building  
University Park, PA 16802Dr. Allen

Dr. David M. Ambrose  
College of Business Administration  
University of Nebraska  
Omaha, NE 68182David

Professor Raphael H. Amit  
J. L. Kellogg Graduate School  
of Management  
Northwestern University  
Nathaniel Leverone Hall  
2001 Sheridan Road  
Evanston, IL 60201Professor Amit

Dr. John D. Aram  
Associate Dean  
Weatherhead School of Management  
Case Western Reserve University  
Cleveland, OH 44106John

Dr. Thomas M. Begley  
College of Business  
Northeastern University  
Hayden Hall  
360 Huntington Avenue  
Boston, MA 02115Tom

Dr. Barbara J. Bird  
Weatherhead School of Management  
Case Western Reserve University  
Cleveland, OH 44106Barbara

Dr. Susan Birley  
Department of Management  
College of Business Administration  
201-D Hurley Building  
University of Notre Dame  
Notre Dame, IN 46556Sue

Professor Zenas R. Block  
Graduate School of Business  
New York University  
100 Trinity Place  
New York, NY 10006Zenas

Mr. Anthony G. Bovaird  
University of Aston  
Nelson Building  
Gosta Green  
Birmingham B4 7ET, ENGLANDTony

Professor David P. Boyd  
Human Resources Group  
304 Hayden Hall - College of Business  
Northeastern University  
360 Huntington Avenue  
Boston, MA 02115Dave

Professor Robert H. Brockhaus, Sr.  
School of Business  
St. Louis University  
3674 Lindell Boulevard  
St. Louis, MO 63108Bob

Professor Albert V. Bruno  
School of Business  
University of Santa Clara  
Santa Clara, CA 96053Al

Ms. Candida G. Brush  
Department of Management  
Boston College  
Chestnut Hill, MA 02167Candy

Dr. William D. Bygrave  
Post Office Box 170  
130 Peter Hans Road  
Carlisle, MA 01740Bill

Dr. Neil C. Churchill  
Caruth Institute  
Cox School of Business  
Southern Methodist University  
Dallas, Texas 75275Neil

Professor Dennis J. Cohen  
Wharton School  
University of Pennsylvania  
Philadelphia, PA 19104Mr. Cohen

Mr. Patrick J. Connor  
ANCO  
The Industrial Training Authority  
P.O. Box 456  
27-33 Upper Baggot Street  
Dublin 4, IRELANDPat

Dr. Arnold C. Cooper  
Krannert Graduate School of Management  
Purdue University  
West Lafayette, IN 47907Arnie

DR WAYNE BROWN  
UTAH INNOVATION CENTER  
UNIVERSITY OF UTAH  
SALT LAKE CITY, UT  
84112



Dr. Melvyn R. Copen  
Babson College  
Wellesley, MA 02157Mel

Professor Stanton G. Cort  
Weatherhead School of Management  
Case Western Reserve University  
Cleveland, OH 44106Stan

Dr. William R. Dill  
Babson College  
Wellesley, MA 02157Bill

Professor Jerome Doutriaux  
Faculty of Administration  
University of Ottawa  
Ottawa, Ontario K1N 9B5  
CANADAJerome

Professor William C. Dunkelberg  
Krannert Graduate School of Management  
Purdue University  
West Lafayette, IN 47907Bill

Mr. Gerald L. Feigen  
Small Business Administration  
Office of Advocacy  
1725 I Street, N.W.  
Washington, DC 20416Jerry

Mr. Michael D. Finch  
Department of Sociology  
University of Minnesota  
Minneapolis, MN 55455Mr. Finch

Professor Dennis C. Foss  
c/o W. E. Wetzel  
University of New Hampshire  
Durham, NH 03824Dennis

Professor William B. Gartner  
McIntire School of Commerce  
Monroe Hall  
University of Virginia  
Charlottesville, VA 22903Bill

Professor Yvon Gasse  
Laval University  
Quebec City  
Quebec G1K 7P4  
CANADAYvon

Ms. Elizabeth Gatewood  
c/o Dr. Frank S. Hoy  
College of Business Administration  
University of Georgia  
Athens, GA 30602Ms. Gatewood

Professor Thomas N. Gilmore  
The Wharton School  
University of Pennsylvania  
Philadelphia, PA 19104Tom

Professor James B. Graham  
Faculty of Management  
University of Calgary  
2500 University Drive, N.W.  
Calgary, Alberta  
CANADA T2N 1N4Jim

Mr. Robert J. Graham  
Wharton School  
University of Pennsylvania  
3200 Steinberg - Dietrich Hall/CC  
Philadelphia, PA 19104Mr. Graham

Mr. David E. Gumpert  
Harvard Business Review  
Soldiers Field Road  
Boston, MA 02163Mr. Gumpert

Mr. H. Graham Herford  
Coordinator, Small Business Program  
Director, Business Institute  
School of Business Studies  
Northern Rivers College of  
Advanced Education  
P. O. Box 157  
Lismore, New South Wales 2480  
AUSTRALIAMr. Herford

Dr. Gerald E. Hills  
College of Business Administration  
University of Illinois  
2521 University Hall  
Post Office Box 4348  
Chicago, IL 60680Gerry

Dr. Robert D. Hisrich  
Bovaird Chair of Entrepreneurial Studies  
College of Business Administration  
University of Tulsa  
600 South College  
Tulsa, OK 74104Bob

Dr. Daryl J. Hobbs  
University Hall  
University of Missouri - Columbia  
Columbia, MO 65211Daryl

Dr. John A. Hornaday  
Babson College  
Wellesley, MA 02157Jack

Professor Frank S. Hoy  
Department of Management  
College of Business Administration  
University of Georgia  
Athens, GA 30602Frank

Dr. Roger W. Hutt  
College of Business Administration  
Arizona State University  
Tempe, AZ 85287Roger

Mr. Auzville Jackson, Jr.  
President  
AJ Associates, Inc.  
5505 River Point Cove  
Knoxville, TN 37933Auzzie

Mr. Daniel F. Jennings  
c/o Donald L. Sexton  
Baylor University  
Waco, TX 76706Dan

Professor Rosabeth Moss Kanter  
c/o Goodmeasure, Inc.  
330 Broadway  
P.O. Box 3004  
Cambridge, MA 02139Rosabeth

Dr. Jerome A. Katz  
Wharton School  
University of Pennsylvania  
34th & Spruce Streets  
Philadelphia, PA 19104Jerry

Dr. Robert K. Kazanjian  
Graduate School of Business Administration  
University of Michigan  
Ann Arbor, MI 48109Bob

Ms. Roubina Khoyleian  
Venture Economics, Inc.  
16 Laurel Avenue  
P.O. Box 348  
Wellesley, MA 02181Roubina

Dr. Bruce A. Kirchhoff  
College of Business Administration  
University of Nebraska  
60th and Dodge  
Omaha, NE 68182Bruce

Dr. Russell M. Knight  
School of Business Administration  
University of Western Ontario  
London, Ontario N6A 3K7  
CANADARuss

Dr. O. Jay Krasner Pepperdine University  
4709 Autry Avenue  
Long Beach, CA 90808Jay

Mr. Jay C. Lacke  
Director of New Enterprise Institute  
University of Southern Maine  
246 Deering Avenue  
Portland, ME 04102Jay

Ms. Virginia L. Lewis  
Caruth Institute  
Cox School of Business  
Southern Methodist University  
Dallas, TX 75275Virginia

Professor Wayne A. Long  
Department of Management  
University of Calgary  
2500 University Drive, N.W.  
Calgary, Alberta T2N 1N4  
CANADAWayne

Dr. Peter Lorange  
Chairman, Department of Management  
Wharton School  
University of Pennsylvania  
Philadelphia, PA 19104Dr. Lorange

Professor Ian C. MacMillan  
Graduate School of Business Administration  
New York University  
100 Trinity Place  
New York, NY 10006Ian

Professor W. Edward McMullan  
Faculty of Management  
University of Calgary  
Calgary, Alberta T2N 1N4  
CANADAEd

Mr. Douglas H. McQueen  
Chalmers Innovation Center  
Chalmers University of Technology  
412 96 Goteborg  
SWEDENDoug

Dr. Timothy S. Mescon  
Department of General Business,  
Management & Organization  
University of Miami  
P.O. Box 249145  
Coral Gables, FL 33124Tim

Dr. John B. Miner  
Professor of Management  
Georgia State University  
Atlanta, Georgia 30303John

Professor Robert E. Mittelstaedt, Jr.  
Director, Wharton Innovation Center  
University of Pennsylvania  
Philadelphia, PA 19104Professor Mittelstaedt

Dr. Daryl G. Mitton  
College of Business Administration  
San Diego State University  
San Diego, CA 92182Daryl

Dr. James F. Molloy, Jr.  
College of Business Administration  
Northeastern University  
360 Huntington Avenue  
Boston, MA 02115Jim

Professor Donald D. Myers  
ICSB  
Department of Engineering Management  
301 Harris  
University of Missouri-Rolla  
Rolla, MO 65401-0249Don

P. N. Subba Narasimha  
c/o Prof. Ian C. MacMillan  
Graduate School of Business Administration  
New York University  
100 Trinity Place  
New York, NY 10006Mr. Narasimha

Dr. D. Kirk Neiswander  
Director of Entrepreneurial Programs  
311 Wickenden  
Weatherhead School of Management  
Case Western Reserve University  
Cleveland, OH 44106Kirk

Mr. Lee Ogden  
Small Business Development Center  
1180 East Broad Street  
Chicopee Complex  
University of Georgia  
Athens, GA 30602Mr. Ogden

Mr. Christer Olofsson  
Department of Management & Economics  
Linköping University  
S581 83 Linköping  
SWEDENChrister

Professor Rein Peterson  
York University  
Faculty of Administrative Studies  
4700 Keele Street  
Downsview, Ontario  
CANADA M3J 1P3Rein

Dr. Paul D. Reynolds  
Wharton School  
Department of Management  
University of Pennsylvania  
Philadelphia, PA 19104Paul

Dr. Robert C. Ronstadt  
Babson College  
Wellesley, MA 02157Bob

Dr. A. William Sahiman  
Harvard Business School  
Soldiers Field Road  
Boston, MA 02163Bill

Mr. Ravi Sarathy  
c/o J. F. Molloy  
College of Business Administration  
Northeastern University  
360 Huntington Avenue  
Boston, MA 02115Mr. Sarathy

Dr. Vijay Sathe  
Harvard Business School  
Soldiers Field Road  
Boston, MA 02163Vijay

Mr. Robert G. Schwartz  
School of Business and Economics  
Mercer University-Atlanta  
Atlanta, GA 30303Bob

Professor Donald L. Sexton  
Hankamer School of Business  
Baylor University  
Waco, TX 76706Don

~~Professor Albert Shapiro~~  
~~Ohio State University~~  
~~1775 College Road~~  
~~Columbus, OH 43210Al~~

Mr. John J. Shaw  
39 Meadow Drive  
Sudbury, MA 01776John

✓ Dr. Edward B. Shils  
Wharton Entrepreneurial Center  
Steinberg Hall-Dietrich Hall/CC, Suite 3200  
University of Pennsylvania  
Philadelphia, PA 19104Ed

*William H. Davis, Chair  
of American Free Enterprise Sys  
302D Hagerty Hall  
1775 College Rd  
Columbus, OH 43210-13*

*Fimmer?*

Dr. Jeffrey C. Shuman  
Graduate Center 325  
Bentley College  
Beaver & Forest Streets  
Waltham, MA 02254Jeff

Ms. Robin Siegel  
7901 Henry Avenue  
Apartment E-212  
Philadelphia, PA 19128Ms. Siegel

Professor Norman R. Smith  
School of Business  
University of Oregon  
Eugene, OR 97403Norm

Dr. George T. Solomon  
Small Business Administration  
1441 L Street, N.W.  
Room 317  
Washington, DC 20416George

Professor Alvin D. Star  
College of Business Administration  
University of Illinois at Chicago  
Box 4348  
Chicago, IL 60680Al

Dr. Howard H. Stevenson  
Harvard Graduate School of Business  
Morgan 320  
Soldiers Field  
Boston, MA 02163Howard

Dr. Steven C. Stryker  
9300 Brookville Road  
Silver Springs, MD 20910Steve

Mr. Robert W. Stuart  
School of Management  
Rensselaer Polytechnic Institute  
Troy, NY 12181Bob

Professor Gerald Sussman  
37 Peacock Farm Road  
Lexington, MA 02173Jerry

Mr. Frank S. Swain  
Small Business Administration  
Office of Advocacy  
1725 I Street, NW  
Washington, DC 20416Frank

✓ Dr. Fred A. Tarpley, Jr.  
College of Management  
Georgia Institute of Technology  
Atlanta, GA 30332Fred

*Timmin  
recommends*

Mr. Richard D. Teach  
College of Management  
Georgia Institute of Technology  
Atlanta, GA 30332Dick

Mr. Brian Thomas  
c/o R. W. Hutt  
College of Business Administration  
Arizona State University  
Tempe, AZ 85287Brian

Professor Jeffry A. Timmons  
Babson College  
Wellesley, MA 02157Jeff ✓

Professor Tyzoon T. Tyebjee  
University of Santa Clara  
Santa Clara, CA 96053Tyzoon

Professor Karl H. Vesper  
School of Business  
MacKenzie Hall, DJ-10  
University of Washington  
Seattle, WA 98195Karl

Dr. George S. Vozikis  
Department of General Business/Management  
University of Miami  
P. O. Box 249145  
Coral Gables, FL 33124George

Professor Clas Wahlbin  
University of Linköping  
Department of Management & Economics  
S-581 83 Linköping  
SWEDENClas

Herr J. Torkel Wallmark  
Chalmers Tekniska Hogskola  
Innovationscentrum  
421 96 Goteborg  
SWEDENHerr Wallmark

Dr. Robin H. Ward  
Director, Ethnic Business Research Unit  
Management Center  
University of Aston  
Nelson Building  
Gosta Green  
Birmingham, B4 7ET, ENGLANDRobin

Mr. Steven West  
Department of Sociology  
University of Minnesota  
Minneapolis, MN 55455Mr. West

(John)  
Jack Thoon  
Pittsburgh  
Center for Enterprise  
Development  
Cannon - Miller



Dr. William E. Wetzel, Jr.  
University of New Hampshire  
Durham, NH 03824Bill

Mr. Ian G. Wilson  
c/o W. E. Wetzel, Jr.  
University of New Hampshire  
Durham, NH 03824Ian

**ALABAMA**

Mr. Jaime Etheredge  
Director, Alabama Development Office  
135 South Union Street  
Montgomery, AL 36130  
205-263-0048

**ALASKA**

Dr. Richard A. Neve'  
Senior Science Advisor  
Office of the Governor  
P.O. Box AM  
Juneau, AK 99811  
907-465-3568  
c/o John Katz  
Alaska Washington Office

**ARKANSAS**

Dr. John Ahlen  
Director  
Arkansas Science & Technology Authority  
200 Main Street, Suite 210  
Little Rock, AR 72201  
501-371-3554

**COLORADO**

Ms. Sally Bay Cornwell  
Science & Technology Advisor  
to the Governor  
S&T Advisory Council  
Office of the Governor  
124 State Capitol Building  
Denver, CO 80203  
303-866-2832

**DELAWARE**

Mr. Louis H. Papineau, Jr.  
Director, Delaware Development Office  
99 Kings Highway  
P.O. Box 1401  
Dover, DE 19903  
302-736-4271

**FLORIDA**

Mr. Ray Iannucci  
Executive Director  
Florida High Technology and  
Industry Council  
Executive Office of the Governor  
The Capitol  
Tallahassee, Florida 32301-8047  
904-487-3134

**HAWAII**

Mr. Carl E. Swanholm  
Science & Technology Officer  
Dept. of Planning and Economic  
Development  
P.O. Box 2359  
Honolulu, Hawaii 96804  
808-548-8741

**ILLINOIS**

Mr. Norm Peterson  
Executive Director  
Governor's Commission on Science  
and Technology  
100 West Randolph Street, Suite 3-400  
Chicago, Illinois 60601  
312-917-3982

**INDIANA**

Dr. John D. Hague, President  
Indiana Corp. for Science & Technology  
One North Capitol, Suite 925  
Indianapolis, IN 46204  
317-635-3058

**IOWA**

Mr. Doug Getter  
Group Manager Research & Development  
Iowa Development Commission  
600 E. Court Ave.  
Des Moines, IA 50309  
515-281-3036

**KANSAS**

Dr. Phillips Bradford  
Director of Advanced Technology  
Commission  
Kansas Dept. of Economic Development  
503 Kansas Ave., Sixth Floor  
Topeka, KS 66603  
913-296-5272

**MARYLAND**

Dr. Herbert Rabin  
Associate Dean, College of Engineering  
Engineering Research Center  
University of Maryland  
College Park, Maryland 20742  
301-454-7941

**MASSACHUSETTS**

Tom Sommer  
Federal State Relations  
444 N. Capital St., NW  
Suite 307  
Washington, D.C. 20001  
202-628-1065

**MICHIGAN**

Dr. James Kenworthy  
Manager, Research & Technology  
Programs, Michigan Strategic Fund  
Research Centers, Michigan Strategic Fund  
P.O. Box 30234  
Lansing, MI 48909  
517-373-7550

**MINNESOTA**

Ms. Jayne B. Khalifa  
Director, Governor's Office  
of Science & Technology  
900 American Center Building  
150 E. Kellogg Blvd  
St. Paul, MN 55101  
612-297-4368

**MISSOURI**

Mr. Alan Franklin  
Acting Exec. Director of Missouri Corp.  
for Science & Technology/Manager of  
High Technology Program  
P.O. Box 118  
Jefferson City, Missouri 65102  
314-751-9077

**MONTANA**

Mr. Sam Hubbard, Administrator  
Science & Technology Alliance  
Montana Department of Commerce  
Capitol Station  
Helena, MT 59620  
406-444-3707

**NEBRASKA**

Mr. Rod Bates  
Director, Nebraska Dept. of  
Economic Development  
301 Centennial Mass South  
P.O. Box 94666  
Lincoln, NE 68509  
402-471-3747

**NEVADA**

Mr. Andrew P. Grosie  
Executive Director  
Commission on Economic Development  
Capitol Complex  
Carson City, NV 89710  
702-885-4325

**NEW JERSEY**

Mr. Edward Cohen  
Executive Director  
New Jersey Commission on Science  
and Technology  
122 W. State Street, CN-832  
Trenton, New Jersey 08625  
609-633-2740

**NEW MEXICO**

Mr. Bob Gold  
Secretary of Economic  
Development & Tourism Dept.  
Bataan Memorial Building  
Santa Fe, NM 87503  
505-827-6204

**NEW YORK**

Mr. Graham Jones  
New York State Science & Technology  
99 Washington Ave., 17th Floor  
Albany, NY 12210

**NORTH DAKOTA**

Mr. Dick Rayl, Director  
Midwest Technical Group  
Department of Management & Budget  
State Capitol  
Bismarck, ND 58505  
701-224-4904

**OHIO**

Mr. Christopher M. Coburn  
Science & Technology Advisor  
Office of the Governor  
P.O. Box 1001  
Columbus, OH 43266-0101  
614-466-3086

**OKLAHOMA**

Mr. Scott B. Ingham  
Sr. Administrative Assistant  
Oklahoma Council of Science & Technology  
Office of the Governor  
212 State Capitol  
Oklahoma City, OK 73105  
405-521-2342

**OREGON**

Dr. S. John Owens  
Vice Chancellor for the Oregon  
Center for Advanced Technology  
Education  
303 Dearborn Hall  
Oregon State University Campus  
Corvallis, OR 97331  
503-754-3617

**PENNSYLVANIA**

Dr. Walter H. Plosila  
Deputy Secretary for Technology  
and Policy Development  
Department of Commerce  
433 Forum Building  
Harrisburg, PA 17120  
717-783-5053

**RHODE ISLAND**

Mr. Bruce R. Lang  
Executive Director  
Rhode Island Partnership for Science  
& Technology  
7 Jackson Walkway  
Providence, RI 02903  
401-277-2601

**SOUTH CAROLINA**

Dr. Robert E. Henderson  
Director  
South Carolina Research Authority  
P.O. Box 12025  
Columbus, SC 29211  
803-799-4070

**TENNESSEE**

Dr. John M. Crothers  
Dept. of Economic & Community  
Development  
6th Floor  
Rachel Jackson Building  
Nashville, TN 37219

**UTAH**

Dr. Randy G. Moon  
State Science Advisor  
Utah Technology Finance Corp.  
Centers of Technological Excellence  
116 State Capitol Building  
Salt Lake City, Utah 84114  
801-533-4987

**VERMONT**

Mr. James Guest  
Secretary, Agency of Development  
& Community Affairs  
109 State Street  
Montpelier, VT 05602  
802-828-3211

**VIRGINIA**

Dr. John Salley  
Vice President, Center for  
Innovative Technology  
The Hallmark Building  
Suite 201  
13873 Park Center Rd.  
Herndon, VA 22071

**WISCONSIN**

Mr. Rolf Wegenke  
Administrator, Division of Economic  
and Community Development  
Department of Development  
P.O. Box 7970  
Madison, WI 53707  
608-266-1018

**WYOMING**

Dr. James G. Speight  
Chief Scientific Officer  
Western Research Institute  
University of Wyoming Research Corp.  
P.O. Box 3395  
Laramie, WY 82071  
307-721-2209

Others

Dr. Al Hellman  
Technical Advisor for Biotechnology  
International Trade Administration  
Room 4045  
Washington, DC 20230  
202-377-3888

Curt W. Reimann  
Room A365  
Physics Building  
National Bureau of Standards  
Gaithersburg, MD 20899

Dana Peck  
SURA  
3401 N. Fairfax Dr., #321  
Arlington, VA 22201  
703-841-2694

Stephen J. Gage  
President  
MDTI  
1300 Conwed Towers  
444 Cedar Street  
St. Paul, MN 55101

Additional Science and Technology Advisors and Administrators

CONNECTICUT

Mr. Jack Frazier  
President, Connecticut  
Product Development Corp.  
93 Oak Street  
Hartford, CT 06106  
203-566-2920

GEORGIA

Mr. Tom Lewis  
Executive Assistant to the Governor  
201 State Capitol  
Atlanta, GA 30334  
404-656-6870

KENTUCKY

Mr. Carroll Knicely  
Secretary of the Commerce Cabinet  
24th Floor  
Capitol Plaza Tower  
Frankfort, KY 40601  
502-564-7670

NORTH CAROLINA

Dr. Earl MacCormac  
Science Advisor to the Governor  
Executive Director of North Carolina  
Board of Science and Technology  
Administration Building  
1616 West Jones Street  
Raleigh, NC 27611  
(919) 733-6500

TEXAS

Ms. Meg Wilson  
Science and Technology Coordinator  
Governors Office  
P. O. Box 13561  
Austin, TX 78711  
512-463-2000

COMMERCE TASK FORCE ON PATENT POLICY

Dr. Merrifield

Dr. Williams

Lanse Felker

Mike Rubin

Fred Knickerbocker

Catherine Miller

Barry Beringer

1/15/54

WORKING GROUP ON RESEARCH AND DEVELOPMENT

Department of Treasury (Chairman)

*Stephen S. Johnson*  
~~Dr. Manuel H. Johnson~~  
Assistant Secretary  
for Economic Policy  
Department of Treasury  
Room 3452  
15th & Pennsylvania Ave., N.W.  
Washington, D.C. 20026  
566-2551  
Economic Policy  
566-2551

Representatives

Mr. Maynard S. Comiez ✓  
Director  
Office of Special Studies  
Department of Treasury  
Room 4460  
15th & Pennsylvania Ave., N.W.  
Washington, D.C. 20026  
566-5808

Mr. Edward E. Murphy ✓  
Economist  
Office of Special Studies  
Department of Treasury  
Room 4460  
15th & Pennsylvania, Ave., N.W.  
Washington, D.C. 20026  
566-5755

Department of Defense

The Honorable  
Dr. James P. Wade Jr.  
Assistant Secretary of Defense  
3E1014 <sup>36868</sup>  
Pentagon  
Washington, D.C. 20301-8000  
695-6639

*Hornell*  
Mr. John Mittino ✓  
Deputy Assistant Secretary of  
Defense for Production Support  
Room 3E144  
Pentagon  
Washington, D.C. 20301-8000  
695-6322

Department of Commerce

*Hornell*  
Dr. Bruce Merrifield  
Assistant Secretary  
Productivity, Technology & Innovation  
Department of Commerce  
Room 4824  
14th & Constitution Avenue, N.W.  
Washington, D.C. 20030  
377-1984

Mr. Frederick T. Knickerbocker  
Executive Director  
Office of Economic Affairs  
Department of Commerce.  
Room 4838  
14th & Constitution Ave., N.W.  
Washington, D.C. 20030  
377-2405

Dr. Jack Williams  
Director of Productivity  
Department of Commerce  
Room 4816 <sup>4822</sup>  
14th & Constitution Ave., N.W.  
Washington, D.C. 20030  
377-1091



Department of Energy

*Howell*

Mr. Alvin W. Trivelpiece  
Director  
Office of Energy Research  
Department of Energy  
Washington, D.C. 20585  
252-5430

Economic Policy Council

Mr. Eugene J. McAllister  
Executive Secretary  
Economic Policy Council  
OEOB  
Room 216  
Washington, D.C. 20500

Office of Management and Budget

Mr. Randall E. Davis  
Associate Director  
Natural Resources, Energy & Science  
Office of Management and Budget  
OEOB  
Room 260  
Washington, D.C. 20503  
395-4844

Mr. Hugh Loweth  
Deputy Associate Director  
of Energy & Science  
Office of Management and Budget  
8001 NEOB  
726 Jackson Place, N.W.  
Washington, D.C. 20503  
395-3404

Council of Economic Advisors

The Honorable  
Thomas G. Moore  
Member  
Council of Economic Advisors  
OEOB  
17th & Pennsylvania Ave., N.W.  
Room 314  
Washington, D.C. 20500  
395-5046

Mr. Martin Zimmerman  
Senior Staff Economist  
OEOB *Council of Economic Advisors*  
Room 320  
Washington, D.C. 20500

*395-6782*

National Science Foundation

Dr. John Moore  
Deputy Director  
National Science Foundation  
1800 G Street, N.W.  
Room 520  
Washington, D.C. 20550  
357-9427

Dr. Carl Hall  
Deputy Assistant Director  
for Engineering  
National Science Foundation  
1800 G Street, N.W.  
Room 1115  
Washington, D.C. 20550  
357-9427

Office of Science & Technology Policy

PRODUCT LIABILITY LIST (5/19/86)

Niels Reimers  
Acting Director of the Licensing, Patent,  
and Copyright Office  
Massachusetts Institute of Technology  
Building E19-722  
77 Massachusetts Avenue  
Cambridge, MA 02139

Sheldon Steinbach  
Staff Counsel  
Associate Director, Office of  
Governmental Affairs  
American Council on Education  
One Dupont Circle  
Washington, D. C. 20036

Howard Bremer  
Patent Counsel  
Wisconsin Alumni Research  
Foundation  
614 N. Walnut Street  
Madison, WI 53705

Kenneth Smith  
Associate Provost and Vice President  
for Research  
Massachusetts Institute of Technology  
Room 3-240  
77 Massachusetts Avenue  
Cambridge, MA 02139

Edward MacCordy  
Associate Vice Chancellor for Research  
Washington University  
Lindell and Skinker Boulevards  
Box 1054  
St Louis, MO 63130

Bruce W. McConnell  
Desk Officer  
Office of Information and Regulatory  
Affairs  
Office of Management and Budget  
17th & PA Avenue, N. W.  
Room 3235, New Executive Office Bldg.  
Washington, D. C. 20503

Stephen H. Atkinson  
Director  
Office of Technology Licensing and  
Industry - Sponsored Programs  
Harvard Medical School  
221 Longwood Avenue  
Boston, MA 02115

Mark Goodman  
MultiNational Business Services  
1333 New Hampshire Avenue, N. W.  
Suite 900  
Washington, D. C. 20036

Dave Eden  
Director, Plant Environment  
Environmental Activity Staff  
General Motors Technical Center  
Warren, MI 48090

TELEPHONE DIRECTORY  
OFFICE OF THE  
UNDER SECRETARY FOR ECONOMIC AFFAIRS

November 1986

	<u>Telephone Number</u>	<u>Room Number</u>	<u>Mail Room/ Routing Code</u>
<u>Under Secretary for Economic Affairs</u>			
Robert Ortner, Under Secretary	377-3727	4848	4848
Stefanie Salata, Private Secretary	377-3727	4848	4848
Fifi Ellis, Secretary	377-3727	4848	4848
F.T. Knickerbocker, Executive Director	377-2405	4840	4838
Gerri Tyer, Secretary	377-2405	4838	4838
Harry A. Scarr, Exec. Asst. for Statistical Affairs	377-2760	4842	4838
M. Catherine Miller, Legislative/Policy Analyst	377-3658	4843	4838
Barry C. Beringer, Director, Congressional Affairs	377-8181	4845	4838
Michael Sawyer, Congressional Liaison Specialist	377-8181	4845	4838
Ani Nazerian, Legislative Assistant	377-2843	4845	4838
Lula Thompson, Secretary	377-1194	4843	4838
Adren Cooper, Economic Information Officer	377-2235	4845	4838
Ago Ambre, Economist	377-3686	4845	4838
Ann M. Bailey, Secretary	377-3685	4845	4838
<u>Legal Staff</u>			
Robert Ellert, Chief Counsel for EA	377-5394	4610	4610
June Tooks, Secretary	377-5394	4610	4610
Philip Freije, Deputy Assistant General Counsel	377-5165	4610	4610
Brenda Mayo, Secretary	377-5165	4610	4610
Michael R. Rubin, Attorney Adviser	377-5394	4611	4610
Eugene J. Pawlikowski, Patent Attorney	377-5394	4613	4610
Alvin L. Englert, Patent Adviser	377-5394	4613	4610
<u>Office of Administration</u>			
B. Jerome Jackson, Acting Director	377-3884	4079	4079
Teresa Hampton, Secretary	377-2431	4079	4079
Clifton T. Beck, Program Analyst	377-1632	4079	4079
<u>Management Services Division</u>			
Doris L. Trunfio, Acting Chief	377-4165	4079	4079
Jane Parsons, Management Analyst	377-5710	4079	4079
Barbara A. Russell, Management Analyst	377-5161	4079	4079
Jackie B. Proctor, Clerk-Typist	377-2431	4079	4079

	<u>Telephone Number</u>	<u>Room Number</u>	<u>Mail Room/ Routing Code</u>
<u>Management Services Division (Cont'd)</u>			
Thomas McCormick, Management Analyst	523-0724	M-1 TOWER	BE-15
Maria A. Scott, Management Assistant	523-0898	M-1 TOWER	BE-15
Marlene Leon, Clerk Typist	523-0537	M-1 TOWER	BE-15
John C. Ross, Support Services Supervisor	523-0719	B-5 TOWER	BE-15
Charles L. West, Mail Clerk	523-0719	B-5 TOWER	BE-15
Nicholas J. Burns, Messenger	523-0719	B-5 TOWER	BE-15
Douglas K. Martin, Mail Clerk/Messenger	523-0719	B-5 TOWER	BE-15
<u>Budget Division</u>			
Patricia A. Davis, Budget Analyst	377-1633	4079	4079
Jane Wright, Budget Analyst	377-1633	4079	4079
Paul Rennert, Budget Analyst	377-1633	4079	4079
<u>Office of Strategic Resources</u>			
Robert Dale Wilson, Director	377-2388	4616	4616
Orcutt P. Drury, Deputy Director	377-2388	4616	4616
David M. Glancy, Operations Research Analyst	377-4595	4616	4616
Barbara H. Curry, Research Assistant	377-2388	4616	4616
<u>Office of Business Analysis</u>			
John E. Cremeans, Director	377-1405	4878	4878
Nancy C. Beltz, Secretary	377-1405	4878	4878
Robert B. Grant, Deputy Director	377-1985	4878	4878
Helen Simpson, Secretary	377-1985	4878	4878
<u>Business Issues Analysis Division</u>			
J. Steven Landefeld, Director	377-1224	4886	4886
E. Jean Shamberger, Secretary	377-1220	4886	4886
Donald H. Dalton, Jr., Industry Economist	377-1190	4884	4886
Virgil Ketterling, Economist	377-1225	4883	4886
Sandra Cooke, Economist	377-4940	4884	4886
Ann Lawson, Economist	377-1226	4883	4886
Armondo Lopez, Economist	377-2011	4882	4886
Pamela R. Nacci, Financial Analyst	377-4027	4884	4886
Kan Hau Young, Economist	377-1218	4885	4886

	<u>Telephone Number</u>	<u>Room Number</u>	<u>Mail Room/ Routing Code</u>
<u>Capital, Energy &amp; Productivity Studies Division</u>			
Michael F. Mohr, Director	377-2019	4525	4525
Saundria Pitts, Statistical Assistant	377-2013	4525	4525
Joseph G. Correia, Industry Economist	377-1223	4519-A	4525
Joseph E. Modrak, Program Analysis Officer	377-1227	4870	4525
Lori D. Hamilton Price, Economist	377-1229	4523	4525
Robert Wendling, Economist	377-1431	4527	4525
<u>Regulatory-Legislative Analysis Division</u>			
Robert B. Grant, Acting Director	377-1597	4878	4877
Larry S. Campbell, Regulatory Econ. (Project Mngr.)	377-3038	4877	4877
Bernard Greifer, Chemist	377-3078	4877	4877
David K. Henry, Industry Specialist	377-2566	4874	4877
Philip F. Lewis, Industry Analyst (Regulatory)	377-4337	4875	4877
Clyde K. Rodkey, Economist	377-2326	4874	4877
Morton Schnabel, Economist	377-3753	4881	4877
Oliver Dziggle, Economist	377-2567	4875	4877
<u>Statistical Staff</u>			
Kenneth W. Rogers, Chief	377-4450	4887	4887
Stephen E. Mersch, Economist	377-0434	4885	4887
Dennis Pastore, Economist	377-1788	4870	4887
Charles Steigerwald, Economist	377-4947	4884	4887
Lorraine G. Pitts, Statistical Technician	377-1986	4887	4887
<u>Chief Economist</u>			
Lucy Falcone, Senior Advisor to the Chief Economist	377-4885	4858	4858
Robert T. Miki, Sr. Assoc. for Microeconomic Analysis	377-2482	4870	4858
<u>Office of Economic Conditions</u>			
Carl E. Cox, Director	377-4871	4861	4861
Jeanette T. Bennett, Secretary	377-2895	4861	4861
Theodore S. Torda, Economist	377-2894	4861	4861
Barbara A. Overton, Secretary	377-3309	4861	4861
James H. Klumpner, Economist	377-3308	4861	4861
H. Kemble Stokes, Economist	377-2205	4869	4861
Peter M. Taylor, Economist	377-3427	4861	4861
George McKittrick, Economist	377-2343	4861	4861

Telephone      Room      Mail Room/  
Number          Number      Routing Code

Office of Economic Policy

Jeffrey L. Mayer, Deputy Director	377-1727	4858	4858
Marlene A. Kotkins, Secretary	377-1727	4858	4858
Gerald Moody, Economist	377-4352	4864	4858
Vickey L. Simms, Secretary	377-4945	4858	4858
Robert G. McKibben, Economist	377-4559	4858	4858
Michael E. Bell, Economist (LWOP)	377-5041	4864	4858
Edward (Ted) Barrett, Legislative Review Officer	377-2101	4857	4858
K. Peter Wagner, Industry Economist	377-5547	4868	4858
Jane W. Molloy, Legislative Review Officer	377-5926	4868-A	4858
David A. Peterson, Legislative Review Officer	377-5703	4866	4858
Rayanne P. Frazier, Secretary	377-5703	4866	4958
Benson Soffer, Labor Economist	377-5703	4868-A	4858
David C. Lund, Economist	377-5703	4855	4858

Assistant Secretary for Productivity, Technology and Innovation

D. Bruce Merrifield, Assistant Secretary	377-1984	4824	4824
Kimberly Colclough, Secretary	377-1984	4824	4824
Lois Hall, Secretary	377-1984	4824	4824
Philip Goodman, Senior Technical Advisor	377-0825	4829	4824

Office of Productivity, Technology and Innovation

Jack C. Williams, Director	377-1091	4820	4822
Margaret M. Brown, Secretary	377-1091	4822	4822

Industrial Technology Partnerships Division

Lansing R. Felker, Jr., Director	377-5913	4816	4816
Elizabeth M. Robertson, Program Analyst	377-5585	4821	4816
Carl W. Shepherd, Technology Assessment Analyst	377-5922	4821	4816
Susan L. Miller, Technology Partnership Analyst	377-8014	4817	4816
Diane J. Simmons, Secretary	377-1093	4816	4816

Innovation Data Analysis Center

John R. Heizer, Chief	377-8080	4823	4816
Carolyn P. Walker, Data Base Technician	377-8080	4823	4816

Telephone      Room      Mail Room/  
Number          Number      Routing Code

Policy Development and Coordination Division

J. William Nelson, Director	377-2058/59	4814B	4814B
Sara Thompson, Secretary	377-2058/59	4814B	4814B
Paul V. Braden, Economist	377-5572	4814B	4814B
Richard A. Johnson, Senior Policy Analyst	377-2922	4814B	4814B

Commerce Productivity Center

Carol Ann Meares, Acting Director	377-0940	7413	7413
Doris A. Gallahan, Program Assistant	377-0940	7413	7413

Metric Programs Division

Gerald T. Underwood, Director	377-3036	4082	48164
Eldon Nowstrup, Special Projects Officer	377-3036	4982	4082
Alan S. Whelihan, State/Local Metric Conversion Coord.	377-3036	4082	4082
Howard B. Ellsworth, Metric Conversion Coord.	377-3036	4082	4082
Norma Kent, Secretary	377-3036	4817	4816

International Joint Venture Program

Gerald T. Underwood, Project Leader	377-0944	4818	4816
Margaret Sexton, Secretary	377-3036	4817	4816
Gerard Helfrich, Special Projects Officer	377-0944	4833	4816
Robert P. O'Malley, Special Projects Officer	377-0639	4817	4816

Federal Technology Management Policy Division

Norman J. Latker, Director	377-0659/60	4839	4837
Thornton (Tip) J. Parker, III, Program Analyst	377-8100	4835	4837
Joseph P. Allen, Policy Liaison Specialist	377-8102	4835	4837
Richard H. Mullins, Economist	377-8100	4837	4837
Regina Horton, Secretary	377-8100	4837	4837

Small Business Technology Liaison Division

Theodore J. Lettes, Director	377-8111	4827	4816
Christopher B. Cannon, Attorney Advisor	377-8111	4827	4816
Claudeen Julia, Secretary	377-0826	4829	4816

National Technical Information Service

Joseph F. Caponio, Director	487-4636	200 FORBES	
Jill Shockley, Secretary	487-4636	200 FORBES	
Joseph E. Clark, Deputy Director	487-4612	200 FORBES	
Thomas J. Cox, Jr., Associate Director for Admin.	487-4736	207 FORBES	
Thomas P. Bold, Jr., Director, O/Administrative Mgmt.	487-4608	209 FORBES	
Wayne J. Gallant, Budget Officer	487-4862	204 FORBES	



Bureau of the Census

	<u>Telephone Number</u>	<u>Room Number</u>	<u>Mail Room/ Routing Code</u>
John G. Keane, Director	763-5190/91	2049	FB3
Helen Fedele, Administrative Asst/Secretary	763-5190	2049	FB3
C. Louis Kincannon, Deputy Director	763-5192/93	2049	FB3
Shelby Weekly, Secretary	763-5192	2049	FB3
Clifford Parker, Asst. Director for Administration	763-2350	3045	FB3

Bureau of Economic Analysis

Allan H. Young, Director	523-0693	704	TOWER BE-1
Teresa A. Williams, Secretary	523-0694	704	TOWER BE-1
Carol S. Carson, Deputy Director	523-0709	705	TOWER BE-2
Teresa A. Williams, Secretary	523-0710	705	TOWER BE-2
James J. Hartman, Administrative Officer	523-0508	1019	TOWER BE-11

MISCELLANEOUS:

EA Telecopier	377-0432	4853	
EA Xerox Room		4853	
EA Wang Room		4431	
Imprest Fund	377-3291	6880	
Motor Pool/Messenger Service	377-4621	B-819	
Scheduled Airline Ticket Office (SATO)	377-1543	6880	

BUILDING ABBREVIATIONS\*:

TOWER - Tower Building, 1401 K St., NW, Washington, DC,  
FORBES - Forbes Office Building, 8001 Forbes Place, Springfield, VA  
FB3 - Federal Building No. 3, Suitland & Silver Hill Roads, Suitland, MD

\* Rooms listed without an abbreviation are located in the Herbert C. Hoover Building (HCHB).



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Productivity,**  
**Technology and Innovation**  
Washington, D.C. 20230  
(202) 377-1984

MAR 18 1985

Honorable Mary Ann Gilleece  
Deputy Under Secretary of Defense  
(Acquisition Management)  
Pentagon, Room 3E144  
Washington, D. C. 20301

Dear Ms. Gilleece:

I have received the joint letter of March 4, 1985, concerning the efforts of the Federal Coordinating Council on Science, Engineering and Technology (FCCSET) Committee on Intellectual Property to develop a policy framework within which more detailed Government procurement and assistance regulations dealing with technical data would be drafted and evaluated. As you recall, this effort was initiated at the request of Dr. Keyworth, the President's Science Advisor, and I am enclosing a copy of his original request.

This effort is not intended to conflict with or in any way limit the Federal Acquisition Regulation (FAR) authorities of the National Aeronautics and Space Administration (NASA), the Department of Defense (DOD), and the General Services Administration (GSA). However, as I trust you agree, the FAR is written against a backdrop of statutory and administrative policies that are often set outside the FAR system as such. For example, the FAR patent provisions must conform to the President's Memorandum and applicable statutes, including Chapter 18 of Title 35 and regulations issued thereunder. Similarly, if FCCSET or another higher authority can reach agreement on basic technical data principles, there would appear to be no reason why the FAR drafters should not be expected to conform the FAR to those principles.

The concerns expressed in Dr. Keyworth's letter remain valid. For years it has proven impossible to develop Federal Procurement Regulations (FPR) or FAR coverage in the technical data area for the civilian agencies. And there have been significant differences in the approaches adopted by DOD, NASA, Department of Energy (DOE), and other agencies that have issued regulations or other policy directives. We believe a major reason for this is the failure to reach agreement on basic objectives and principles.

There is also legitimate concern whether existing regulations give sufficient weight to the policy objectives of this Administration. In particular, this Administration is strongly committed to the principle that private investment and development of Government supported research should be encouraged--as evidenced by the issuance of the President's 1983 Memorandum on Government Patent Policy.

Because of the obvious interest your agency has in technical data issues, we hope that you will continue to provide input and comments during the development of the Statement.

Sincerely,

(signed)  
Bruce Merrifield

D. Bruce Merrifield

Attachment

cc: Honorable George A. Keyworth II (White House)  
Dr. Andrew Pettifor (OSTP)  
Mr. Allan Beres (GSA)  
Mr. Stuart J. Evans (NASA)

OPTI/FTMP/Norm Latker/Jesse Lasken/rh 3/14/85  
bc: Dr. Merrifield  
Egils Milbergs  
Dr. Williams  
Norm Latker  
Chron  
Read

THE WHITE HOUSE

WASHINGTON

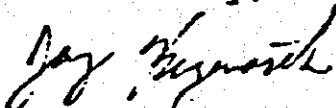
March 19, 1984

Dear Bruce:

The allocation of rights to various technical data, developed in the performance of government contracts, is an issue with significant implications for future government-industry relationships. It is driven, for example, by the government's need to minimize the costs of the products and services it buys, as well as by industry's desire to maximize profits and maintain any competitive advantage. It is fundamental to the government's continued ability to obtain the services of the best of the private sector.

I believe that this is an issue of sufficient importance that any codification of the government's position on this issue, as in the technical data section of part 27 of the proposed Federal Acquisition Regulations, requires a thorough analysis and discussion by the various agencies, and by the private sector. I believe that the FCCSET Intellectual Property Committee would be an appropriate vehicle for examining the various kinds of technical data, for agreeing on the various government objectives in seeking access to, or protecting the proprietary nature of that data, and for developing the basis for an acceptable set of draft regulations for the government's rights to such data. Please keep me informed of your progress.

Yours truly,



G. A. Keyworth

Science Advisor to the President

Dr. D. Bruce Merrifield  
Assistant Secretary for Productivity,  
Technology and Innovation  
Department of Commerce  
Washington, D.C. 20230

RECEIVE

MAR 20 1984

D. BRUCE MERRIFIELD

Analysis of DOD Concerns as Stated in Secretary  
Weinberger's March 19, 1985 Letter

Concern--The statement would "prohibit efforts to negotiate for the right to obtain and use for competitive procurement purposes proprietary technical data pertaining to commercial or future commercial items for which defense has requirements."

Response--Sections 4 and 5 contain such limitations. However, they are based on language in Public Law 98-525 (and similar language in PL 98-577) which states at section 1202 that the Secretary of Defense should--

"...ensure that persons that have developed products or processes offered or to be offered for sale to the public are not required, as a condition for the procurement of such products or processes by the Department of Defense, to provide to the United States technical data relating to the design, development, or manufacture of such products or processes (except for such data as may be necessary for the United States to operate and maintain the product or use the process if obtained by the United States as an element of performance under the contract)."

However, as a result of Secretary Weinberger's letter we have added references to 10 USC 2320(c) in section 5 which gives DOD greater latitude than others in this area.

Concern--The statement would "require the government to limit its use of technical data pertaining to items developed with less than total government funds to such an extent that competition would be severely inhibited if not precluded."

Response--Again, section 5 places limitations on the right of the government to use proprietary data of a contractor for procurement when the data relates to a commercial product developed at private expense. However, it authorizes the use of form, fit, and function data relating to such commercial products for competitive purposes. We have also added the reference to 10 USC 2320(c) to satisfy Secretary Weinberger's concern. Other than data relating to privately developed commercial products, the draft statement does not prevent DOD from obtaining any type of technical data for competitive procurement purposes that relates to noncommercial products developed with partial government and partial contractor funding. Thus, if a contractor has used internal funds to begin the development of a noncommercial, military product the Statement would in no way prevent DOD from negotiating for technical data relating to this item.

Concern--The statement will "prohibit the government's requiring contractors to deliver technical data pertaining to items developed totally at government expense unless there is a specific need for the data. This prohibition appears to extend to follow-on contracts even though data needs not initially apparent may have become known."

Response--We do not understand the basis for this statement. It appears to relate to the second paragraph of section 3 of one of our early drafts which advised agencies not to order expensive "manufacturing data" unless they foresee a need for it. This would not have affected DOD, since in most cases we assume DOD would be procuring the development of an item with an expectation of procuring it in the future if the item proves effective. Revised section 3 (now section 5) no longer contains the same language. In any case neither the earlier version or the current version should prevent DOD from obtaining technical data for procurement purposes in items wholly developed at government expense.

Concern--The statement would "preclude the acquisition of rights in software developed under a contract at government expense unless such software was a specific end product required by the contract. This, too, can serve as a bar to competitive procurement in certain situations."

Response--To fully respond it would be useful to know what type of "situations" are envisioned. However, in actual fact the statement does not preclude the acquisition of rights in software unless it was a specific end product. Section 7 begins by stating the government only gets rights in software that is required to be delivered. The statement does not preclude an agency from specifying that software will be delivered.

It does state, however, that "normally" the delivery of software should not be required unless a purpose of the award is the creation of software. This is not an absolute requirement, but we believe it is a sound general rule. Scientists and engineers are constantly writing and altering computer programs to facilitate work under government R&D grants and contracts. In most cases the government is more interested in the end results than obtaining copies of software that was developed incidental to the carrying out of the work. Thus, it makes little sense in most cases for agencies to require delivery of such software. Furthermore, when a researcher sees a wider commercial market for his software, its delivery to the government will undermine his marketing efforts since it may become available to competitors through the Freedom of Information Act.

The first paragraph of section 7 may, in fact, require a change in DOD policy. The Defense Acquisition Regulation (DAR) Supplement now says that DOD will only acquire rights in computer software to meet its needs. However, it then goes on to state that DOD will take unlimited rights in computer software developed in the course of experimental, developmental, or research work specified under a contract. No explanation is given as to why DOD has such a broad need. We believe this may be the major policy issue presented by the draft Statement.

# DRAFT

## Government Data Policy Statement (Revised 3/27/85)

This statement provides guidance concerning the acquisition of technical data and software under government grants and contracts, except prime contracts for the operation of government-owned research or production facilities. However, it applies to subcontracts under such contracts. It is intended to (i) provide agencies with the flexibility to acquire technical data and software needed to fulfill their missions (ii) avoid unnecessary costs that result from the ordering of unneeded technical data; (iii) encourage the commercialization of new products and processes by contractors through the protection of technical data; and (iv) encourage the most qualified commercial concerns to participate in government research and development programs. It does not affect the classification of technical data and software for national security purposes.

### Section 1. Definitions. As used in this Statement--

(a) "technical data" means recorded information of a scientific or technical nature. It does not include software or financial, administrative, cost and pricing, management data, and other information incidental to contract administration;

(b) "manufacturing data" means technical data and software used for the manufacture of a product or performance of a process on a commercial scale;

(c) The term "contract" includes subcontracts and the term "contractor" includes subcontractors; and

(d) "software" means computer programs, computer data bases, and documentation thereof.

Section 2. Treatment of Proposals. Proposals that have not been incorporated in an award shall be treated as confidential and not disclosed outside the government without the submitter's permission except for evaluation purposes. Parts of proposals that are incorporated in awards and which contain trade secrets or commercial or financial information shall also be treated as confidential if properly marked. Agencies shall not discriminate against marked proposals.

Section 3. Scope of Data Rights Clauses. Technical data delivery requirements should normally be fully set out at the time of contracting, but deferred ordering provisions may be used to add additional deliverables. Any rights which the government obtains to technical data will be limited to rights in data specifically required to be delivered or prepared.

Section 4. Supply Contracts. Agencies procuring standard commercial products may obtain technical data necessary for operation, maintenance or repair but not for reprocurment purposes. Notwithstanding, manufacturing data should not normally be sought.

Section 5. Engineering Development Contracts. Contracts for engineering development should be structured to prevent the disclosure of proprietary technical data related to commercial products or processes developed at private expense by contractors. For example, agencies should normally accept form, fit, and function data in lieu of manufacturing data. Or, if manufacturing data is needed, the contractor shall be allowed to mark as proprietary any data that relates to commercial products or processes developed at private expense; and the right of the government to use and disclose the data shall be specified in the contract, and shall not include the right to use the data for reprocurment purposes (except for Defense Department contracts to which 10 USC 2320(c) is applied). Use of deferred delivery provisions should also be considered. A competitive procurement of an item developed under an engineering development contract should not include in the solicitation any proprietary manufacturing data that relates to a product or process developed at private expense by a contractor which is offered or to be offered for sale commercially by the contractor (except when 10 USC 2320(c) was applied to such data).

Any technical data delivered under an engineering development contract that relates to an item developed wholly under the contract shall be taken without restrictions if competitive acquisition of the item is anticipated. When competitive acquisition is not anticipated, the contractor will be allowed to retain ownership of any such data delivered, and the agency shall reserve an unrestricted, royalty-free right to use or have its contractors use the technical data for governmental purposes (excluding publication outside the government). However, if mission needs require and this is consistent with PL 98-525 or 577, agencies may also acquire publication and other rights. Other technical data not related directly to items developed under the contract normally shall be taken without restrictions.

Section 6. Contracts for Basic and Applied Research. Agencies will normally take technical data delivered under a basic or applied research contract with the unlimited right to use and publish such data, subject to any other provisions of the contract related to inventions and patents. However, if the research involves a contractor's privately developed products or processes or if it is otherwise agreed to by the parties, proprietary data of the contractor shall be protected.

Section 7. Assistance Awards. Agencies normally should not require delivery of technical data under grants or cooperative agreements except as necessary to verify the awardee's performance. The awardee normally will be allowed to retain all



rights in technical data delivered or produced under such awards, including the right to publish and/or assert copyright, although the agency may acquire a nonexclusive, royalty-free, and worldwide license to use such technical data that is delivered or published by the awardee for internal government purposes. When considered necessary to meet program objectives or statutory requirements, agencies may also (i) reserve the right to publish technical data delivered under a grant or cooperative agreement if the awardee fails to publish the results of the research within a reasonable time and/or (ii) expand the government's license to cover State and local governments.

Section 8. Software. Unless its delivery is specifically required, agencies shall not normally acquire rights in software generated under contracts or grants. Delivery of software shall not normally be required unless a purpose of the award is the creation of software. If software has commercial potential, agencies should normally accept license rights in lieu of ownership; and consideration should be given to allowing software documentation to be maintained on the contractor's premises.

When an agency acquires existing proprietary software, it shall accept appropriate conditions limiting its right to use and disclose the software. This includes cases when proprietary software is modified to accommodate particular agency needs.

Software within the definition of "manufacturing data" at section 1(b) is subject to sections 3-7 and not this section.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Productivity,**  
**Technology and Innovation**  
Washington, D. C. 20230  
(202) 377-1984

MAR 18 1985

Honorable Mary Ann Gilleece  
Deputy Under Secretary of Defense  
(Acquisition Management)  
Pentagon, Room 3E144  
Washington, D. C. 20301

Dear Ms. Gilleece:

I have received the joint letter of March 4, 1985, concerning the efforts of the Federal Coordinating Council on Science, Engineering and Technology (FCCSET) Committee on Intellectual Property to develop a policy framework within which more detailed Government procurement and assistance regulations dealing with technical data would be drafted and evaluated. As you recall, this effort was initiated at the request of Dr. Keyworth, the President's Science Advisor, and I am enclosing a copy of his original request.

This effort is not intended to conflict with or in any way limit the Federal Acquisition Regulation (FAR) authorities of the National Aeronautics and Space Administration (NASA), the Department of Defense (DOD), and the General Services Administration (GSA). However, as I trust you agree, the FAR is written against a backdrop of statutory and administrative policies that are often set outside the FAR system as such. For example, the FAR patent provisions must conform to the President's Memorandum and applicable statutes, including Chapter 18 of Title 35 and regulations issued thereunder. Similarly, if FCCSET or another higher authority can reach agreement on basic technical data principles, there would appear to be no reason why the FAR drafters should not be expected to conform the FAR to those principles.

The concerns expressed in Dr. Keyworth's letter remain valid. For years it has proven impossible to develop Federal Procurement Regulations (FPR) or FAR coverage in the technical data area for the civilian agencies. And there have been significant differences in the approaches adopted by DOD, NASA, Department of Energy (DOE), and other agencies that have issued regulations or other policy directives. We believe a major reason for this is the failure to reach agreement on basic objectives and principles.

There is also legitimate concern whether existing regulations give sufficient weight to the policy objectives of this Administration. In particular, this Administration is strongly committed to the principle that private investment and development of Government supported research should be encouraged--as evidenced by the issuance of the President's 1983 Memorandum on Government Patent Policy.

Because of the obvious interest your agency has in technical data issues, we hope that you will continue to provide input and comments during the development of the Statement.

Sincerely,

(signed)  
Bruce Merrifield

D. Bruce Merrifield

Attachment

cc: Honorable George A. Keyworth II (White House)  
Dr. Andrew Pettifor (OSTP)  
Mr. Allan Beres (GSA)  
Mr. Stuart J. Evans (NASA)

*ND*  
OPTI/FTMP/Norm Latker/Jesse Lasken/rh 3/14/85  
bc: Dr. Merrifield  
Egils Milbergs  
Dr. Williams  
Norm Latker  
Chron  
Read

THE WHITE HOUSE

WASHINGTON

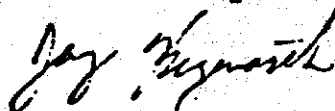
March 19, 1984

Dear Bruce:

The allocation of rights to various technical data, developed in the performance of government contracts, is an issue with significant implications for future government-industry relationships. It is driven, for example, by the government's need to minimize the costs of the products and services it buys, as well as by industry's desire to maximize profits and maintain any competitive advantage. It is fundamental to the government's continued ability to obtain the services of the best of the private sector.

I believe that this is an issue of sufficient importance that any codification of the government's position on this issue, as in the technical data section of part 27 of the proposed Federal Acquisition Regulations, requires a thorough analysis and discussion by the various agencies, and by the private sector. I believe that the FCCSET Intellectual Property Committee would be an appropriate vehicle for examining the various kinds of technical data, for agreeing on the various government objectives in seeking access to, or protecting the proprietary nature of that data, and for developing the basis for an acceptable set of draft regulations for the government's rights to such data. Please keep me informed of your progress.

Yours truly,



G. A. Keyworth

Science Advisor to the President

Dr. D. Bruce Merrifield  
Assistant Secretary for Productivity,  
Technology and Innovation  
Department of Commerce  
Washington, D.C. 20230

RECEIVE  
MAR 20 1984  
D. BRUCE MERRIFIELD

EJB  
MSJ

DULIN, THIENPONT, POTTHAST & SNYDER, LTD.

ATTORNEYS AT LAW  
SUITE 606

135 SOUTH LASALLE STREET  
CHICAGO, ILLINOIS 60603

PATENT BRANCH, OGC  
DHEW

JACQUES M. DULIN  
JAMES W. POTTHAST  
RAY E. SNYDER  
FRANK R. THIENPONT

AUG 25 1978

(312) 263-3288

CABLE  
LAWBYRINTH

August 22, 1978

Senator Robert Dole  
Russell Senate Office Building  
Washington, D. C. 20510

Dear Senator Dole:

Thank you for your letter of August 14, 1978 and the page from the Congressional Record dated Wednesday, August 9, 1978. I had already sent you a communication dated August 14, 1978 commending and supporting your position based on your news release. I am still amazed at the clarity with which you have analyzed the problem, and the logic of your proposed solution.

Patents generally are not of universal interest, and some of your colleagues, namely Nelson and Long, no doubt have made hay back home in haranguing on the governments' treatment of them. In fact, dealing with inventions is fairly intricate, and patents are a vital link for effecting the transfer of technology you refer to.

I believe that much of the furor and confusion expressed by some of your colleagues and members of the administration stem from a lack of understanding of just what a patent is and how it functions. There seems to be a real hang-up over the concept of granting anyone a monopoly, albeit a very restricted one. In truth it is not very much of a monopoly. The worst that can happen is that a competitor affected by another's patent may have to get off his duff and develop something as good or better in order to compete. In this sense, patents can be a strong force for stimulating competition. There may be a temporary howl, but any company still in the business of making buggy whips should upgrade its product line.

Senator Robert Dole  
August 22, 1978  
Page 2

As a final comment, I was particularly pleased with your reference to the position of the patent counsel for the DHEW. I have known Mr. Norm Latker for many years and am intimately aware of his stand on the handling of these matters--even to the point of jeopardizing his job. In my opinion, Mr. Latker has done more toward placing DHEW sponsored inventions into the hands of the public than any other individual and perhaps more than all of the rest of DHEW combined.

If I can be of further assistance in this matter, I am at your service.

Very truly yours,

*Ray E. Snyder*  
Ray E. Snyder

RES:cs

bcc: Donald W. Banner, Esq.  
Howard Bremmer, Esq.  
Mr. Paul R. Keenan  
Dr. Martin Rachmeler  
Norman J. Latker, Esq. ✓

CONFERENCE AUDIENCE INVITATION LIST

Mr. Robert A. Schoellhorn  
Chief Executive Officer  
Abbott Laboratories- Abbott Park  
North Chicago, IL 60064

Mr. Robert S. Janicki  
Vice President, Pharmaceutical  
Products Research & Development  
Abbott Laboratories, Abbott Park  
North Chicago, IL 60064

Mr. W. J. Sanders, III  
Chairman, President and  
Chief Executive Officer  
Advanced Micro Devices, Incorporated  
901 Thompson Place  
Sunnyvale, CA 94086

Mr. Edward L. Hennessy, Jr.  
Chairman and Chief Executive Officer  
Allied-Signal Companies  
Columbia Road and Park Avenue  
Morristown, NJ 07960

Mr. Albert E. Germain  
Tax Counsel  
Aluminum Company of America  
1501 Alcoa Building  
Pittsburgh, PA 15219

Mr. Charles W. Parry  
Chairman and Chief Executive Officer  
Aluminum Company of America  
1501 Alcoa Building  
Pittsburgh, PA 15219

Mr. Eugene R. White  
Chairman  
Amdahl Corporation  
1250 E. Arques Avenue  
Sunnyvale, CA 94086

Mr. George Sella, Jr.  
Chairman, President and  
Chief Executive Officer  
American Cyanamid Company  
One Cyanamid Plaza  
Wayne, NJ 07470

Mr. Claude Barfield  
Resident, Fellow Science and Technology Policy  
American Enterprise Institute  
1150 17th Street, N. W.  
Washington, D. C. 20036

Mr. Edward A. Mason  
Vice President, Research  
Amoco  
200 East Randolph Drive  
Chicago, IL 60601

Mr. Walter F. Raab  
Chairman and Chief Executive Officer  
AMP, Incorporated  
Post Office Box 3608  
Harrisburg, PA 17105

Mr. John Sculley  
President and Chief Executive Officer  
Apple Computer, Incorporated  
20525 Mariana Avenue  
Cupertino, CA 95014

Mr. James C. Morgan  
President and Chief Executive Officer  
Applied Materials, Incorporated  
3050 Bowers Avenue  
Santa Clara, CA 95051

Mr. Emmett W. Hines  
Director, Government Relations  
Armstrong World Industries  
1025 Connecticut Avenue, N. W.  
Suite 1007  
Washington, D. C. 20036



Mr. Joseph L. Jones  
Chairman and Chief Executive Officer  
Armstrong World Industries, Incorporated  
Liberty and Charlotte Streets  
Lancaster, PA 17604

Mr. Irving Levin  
Senior Consultant  
Arthur D. Little, Incorporated  
4 Embarcadero Center  
San Francisco, CA 94111

Mr. Peter E. Glaser  
Vice President for Advances  
in Technology  
Arthur D. Little, Incorporated  
25 Acorn Park  
Cambridge, MA 02140

Mr. James E. Olson  
Vice Chairman  
AT & T  
550 Madison Avenue  
New York, NY 10022

Mr. Charles L. Brown  
Chairman and Chief Executive Officer  
AT & T  
550 Madison Avenue  
New York, NY 10022

Mr. Vernon R. Loucks, Jr.  
President and Chief Executive Officer  
Baxter Travenol Laboratories  
1 Baxter Parkway  
Deerfield, IL 60015

Dr. Robert A. Patterson, M. D.  
Senior Vice President of Scientific Affairs  
Baxter Travenol Laboratories  
1 Baxter Parkway  
Deerfield, IL 60015

Mr. G. S. C. Wang Mr.  
Manager, Research and Engineering  
Bechtel Group Incorporated  
50 Beale Street  
San Francisco, CA 94150

Mr. James H. Leonard  
Vice President, Technology  
Bethlehem Steel Corporation  
Bethlehem, PA 18016  
Mr. Donald H. Trautlein  
Chairman and Chief Executive Officer  
Bethlehem Steel Corporation  
2118 Martin Tower  
Bethlehem, PA 18016

Ms. Jane Cicala  
Senior Administrator  
Governmental & International Affairs  
Boeing Company  
Post Office Box 3707  
Seattle, WA 98124

Mr. Thornton A. Wilson  
Chairman and Chief Executive Officer  
Boeing Company  
Post Office Box 3707  
Seattle, WA 98124

Mr. James F. Bere  
Chairman and Chief Executive Officer  
Borg-Warner Corporation  
200 South Michigan Avenue  
Chicago, IL 60604

Mr. Richard L. Gelb  
Chairman of the Board and  
Chief Executive Officer  
Bristol-Myers Company  
345 Park Avenue  
New York, NY 10154

Mr. Charles A. Heimbold, Jr.  
Sr. Vice President for  
Planning and Development  
Bristol-Myers Co., Inc.  
345 Park Avenue  
New York, NY 10154

Mr. George T. Maloney  
President  
C. R. Bard  
371 Central Avenue  
Murray Hill, NJ 07974

Mr. Robert H. McCaffrey  
Chairman of the Board and  
Chief Executive Officer  
C. R. Bard  
731 Central Avenue  
Murray Hill, NJ 07974

Mr. Robert A. Charpie  
President  
Cabot Corporation  
125 High Street  
Boston, MA 02110

Mr. George A. Schaefer  
Chairman of the Board  
Caterpillar Tractor Company  
100 North East Adams Street  
Peoria, IL 61629

Mr. John D. Macomber  
Chairman and Chief Executive Officer  
Celanese Corporation  
1211 Avenue of the Americas  
New York, NY 10036

Mr. Peter Crawford  
Vice President, Information Services  
Citibank, N. A.  
399 Park Avenue  
New York, NY 10043

Mr. William C. Norris  
Chairman and Chief Executive Officer  
Control Data Corporation  
8100 34th Avenue South  
Minneapolis, MN 55420

Mr. John W. Lacey  
Executive Vice President for  
Technology and Planning  
Control Data Corporation  
8100 34th Avenue South  
Minneapolis, MN 55420

Mr. Amory Houghton  
Chairman, Executive Committee  
Corning Glass Works  
Houghton Park  
Corning, NY 14831

Mr. John A. Rollwagon  
Chairman, President and  
Chief Executive Officer  
Cray Research, Incorporated  
608 Second Avenue South  
Minneapolis, MN 55402

Mr. John Mumford  
Crosspoint Venture Associates  
Post Office Box 10101  
Palo Alto, CA 94303

Mr. Michael Dale  
DALECO Research and Development, Inc.  
3388 Via Lido  
Fourth Floor  
Newport Beach, CA 92663

Mr. Gerald B. Mitchell  
Chairman and Chief Executive Officer  
Dana Corporation  
Post Office Box 1100  
Toledo, OH 43697

Mr. Robert A. Hanson  
Chairman and Chief Executive Officer  
Deere and Company  
John Deere Road  
Moline, IL 61265

Mr. Paul F. Oreffice  
President and Chief Executive Officer  
Dow Chemical Company  
2030 Willard N. Dow Center  
Midland, MI 48640

Mr. Howard E. Simmons  
Director, Central Research and Development  
E. I. Dupont De Nemours & Company  
1007 North Market Street  
Wilmington, DE 19898

Mr. Edward G. Jefferson  
Chief Executive Officer  
E.I. duPont de Nemours and Co., Inc.  
1007 Market Street  
Wilmington, DE 19898

Mr. Leo J. Thomas, Jr.  
Senior Vice President (Research)  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650

Mr. Colby H. Chandler  
Chairman and Chief Executive Officer  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650

Mr. DeSoto Jordan  
Vice President, Government Affairs  
EDS Corporation  
229 Pennsylvania Avenue, S. E.  
Washington, D. C. 20003

Mr. H. Ross Perot  
Chairman  
EDS Corporation  
721721 Forrest Lane  
Dallas, TX 75230

Mr. R. William Gorin  
E. F. Hutton & Company, Inc.  
One Battery Park Plaza  
New York, NY 10004

Mr. Gene Mannella  
Deputy Director  
Electric Power Research Institute  
1800 Massachusetts Avenue, N.W.  
Suite 700  
Washington, D. C. 20036

Mr. Edward E. David, Jr.  
President  
Exxon Research and Engineering Company  
Post Office Box 101  
Florham Park, NJ 07932

Mr. C. C. Garvin  
Chairman and Chief Executive Officer  
Exxon Corporation  
1251 Avenue of the Americas  
New York, NY 10020

Mr. David S. Tappan, Jr.  
Chairman and Chief Executive Officer  
Fluor Corporation  
3333 Michelson Drive  
Irvine, CA 92730

Mr. Robert H. Malott  
Chairman and Chief Executive Officer  
FMC Corporation  
200 East Randolph Drive  
Chicago, IL 60601

Mr. Donald E. Petersen  
Chairman and Chief Executive Officer  
Ford Motor Company  
The American Road  
Dearborn, MI 48121

Mr. Howard G. Schaeffer  
Freshman, Marantz, Orlanski,  
Comsky and Deutsch  
9100 Wilshire Boulevard  
8th Floor, East Tower  
Beverly Hills, CA 90212

Mr. Robert Swanson  
President  
Genentech  
460 Point San Bruno Boulevard  
San Francisco, CA 94080

Mr. Roland W. Schmitt  
Senior Vice President for  
Corporate Research and Development  
General Electric Company  
3135 Easton Turnpike  
Fairfield, CT 06430

Mr. John F. Welch  
Chairman and Chief Executive Officer  
General Electric Co.  
3135 Easton Turnpike  
Fairfield, CT 06431

Mr. Phillips S. Peter  
Vice President  
Corporate Government Relations  
General Electric Company  
1331 Pennsylvania Avenue, N. W.  
Suite 800  
Washington, D. C. 20004

Dr. Paul F. Chenea  
Vice President for Research  
General Motors Corporation  
3044 West Grand Boulevard  
Detroit, MI 48202

Mr. Robert A. Frosch  
Vice President, Research Laboratories  
General Motors Corporation, U. S. A.  
767 Fifth Avenue  
New York, NY 10153

Mr. Roger B. Smith  
Chairman and Chief Executive Officer  
General Motors Corporation  
3044 West Grand Boulevard  
Detroit, MI 48202

Mr. William R. Thurston  
President and Chief Executive Officer  
Genrad, Incorporated  
300 Baker Avenue  
Concord, MA 01742

Mr. David A. Kelso  
Special Investments  
Goldman, Sachs & Company  
85 Broad Street  
New York, NY 10004

Mr. William R. Ylvisaker  
Chairman and Chief Executive Officer  
Gould Incorporated  
10 Gould Center  
Rolling Meadows, IL 60008

Mr. John F. Carr  
Vice Chairman of the Board  
Grumman Corporation  
1000 Wilson Boulevard  
Suite 2100  
Arlington, VA 22209

Mr. Theodore F. Brophy  
Chairman  
GTE Corporation  
One Stamford Forum  
Stamford, CT 06904

Mr. Thomas H. Cruikshank  
President and Chief Executive Officer  
Halliburton Company  
400 North Olive LB 263  
Dallas, TX 75201

Mr. William Perry  
Hambrecht and Quist  
235 Montgomery Street  
Suite 530  
San Francisco, CA 94101

Mr. Joseph A. Boyd  
Chairman and Chief Executive Officer  
Harris Corporation  
Melbourne, FL 32919



Mr. Robert H. Kessel  
Herrick and Smith  
100 Federal Street  
Boston, MA 02110

Mr. David Packard  
Chairman of the Board  
Hewlett-Packard  
3000 Hanover Street  
Palo Alto, CA 94304

Mr. John A. Young  
President and Chief Executive Officer  
Hewlett-Packard  
3000 Hanover Street  
Palo Alto, CA 94304

Mr. John L. Doyle  
Vice President for Research and Development  
Hewlett-Packard  
3000 Hanover Street  
Palo Alto, CA 94304

Mr. Gerald Lore  
Director of Federal Government Affairs  
Hoffmann-LaRoche, Incorporated  
30040 Kingsland Street  
Nutley, NJ 07110-1199

Mr. Irwin Lerner  
Chief Executive Officer  
Hoffmann-LaRoche, Incorporated  
30040 Kingsland Street  
Nutley, NJ 07110-1199

Mr. Edson W. Spencer  
Chairman and Chief Executive Officer  
Honeywell Incorporated  
Honeywell Plaza  
Minneapolis, MN 55408

Mr. William B. Johnson  
Chairman and Chief Executive Officer  
I. C. Industries, Incorporated  
One Illinois Center  
Chicago, IL 60601

Mr. Ralph E. Gomory  
Vice President for Research  
IBM Corporate Headquarters  
Old Orchard Road  
Armonk, NY 10504

Mr. John F. Akers  
President and Chief Executive Officer  
IBM Corporation  
Old Orchard Road  
Armonk, NY 10504

Mr. John R. Opel  
Chairman of the Board  
IBM Corporate Headquarters  
Old Orchard Road  
Armonk, NY 10504

Mr. Gordon E. Moore  
Chairman and Chief Executive Officer  
INTEL Corporation  
3065 Bowers Avenue  
Santa Clara, CA 95051

Mr. Rand V. Araskog  
Chairman and Chief Executive Officer  
ITT Corporation  
320 Park Avenue  
New York, NY

Mr. Roy A. Anderson  
Chairman and Chief Executive Officer  
Lockheed Corporation  
2555 Hollywood Way  
Building 61  
Burbank, CA 91503

Mr. Mitchell D. Kapor  
Chairman and Chief Executive Officer  
Lotus Development Corporation  
161 First Street  
Cambridge, MA 02142

Mr. Raymond A. Hay  
Chairman and Chief Executive Officer  
LTV Corporation  
Post Office Box 5003  
Dallas, TX 75222

Mr. Thomas J. Pownall  
Chairman and Chief Executive Officer  
Martin Marietta Corporation  
6801 Rockledge Drive  
Bethesda, MD 20817

Mr. James E. Cunningham  
Chairman and Chief Executive Officer  
McDermott International, Incorporated  
1010 Common Street  
New Orleans, LA 70160

Mr. Thomas M. Gunn  
Staff Vice President-Washington  
McDonnell Douglas Corporation  
1225 Jefferson Davis Highway  
Suite 800  
Arlington, VA 22202

Mr. John Huck  
Chairman of the Board  
Merck, Sharp and Dohme Research Laboratories  
Post Office Box 2000  
Rahway, NJ 07065

Mr. P. Roy Vagelos  
President and Chief Executive Officer  
Merck, Sharp and Dohme Research Laboratories  
Post Office Box 2000  
Rahway, NJ 07065

Mr. Hirman W. Emery, Jr.  
Managing Director  
Merrill Lynch Capital Markets  
165 Broadway  
1 Liberty Plaza - 44th Floor  
New York, NY 10023

Mr. Glen Haney  
President and Chief Executive Officer  
Micropro International Corporation  
33 San Pablo Avenue  
San Rafael, CA 94903

Mr. Lewis W. Lehr  
Chief Executive Officer  
Minnesota Mining and Manufacturing Co.  
General Offices/3M  
3M Center  
Saint Paul, MN 55144

Mr. Lester C. Krogh  
Vice President, Research and Development  
Minnesota Mining and Manufacturing Company  
3M Center  
Saint Paul, MN 55144

Mr. A. E. Klauser  
Senior Vice President  
Mitsui and Company (U.S.A.), Inc.  
1701 Pennsylvania Avenue, N. W.  
Suite 400  
Washington, D. C. 20006

Mr. Rawleigh Warner, Jr.  
Chairman and Chief Executive Officer  
Mobil Corporation  
150 East 42nd Street  
New York, NY 10017

Dr. Howard A. Schneiderman  
Senior Vice President for  
Research and Development  
Monsanto Company  
800 North Lindbergh Boulevard  
Saint Louis, MO 63167

Mr. Richard Mahoney  
President and Chief Executive Officer  
Monsanto Company  
800 North Lindbergh Boulevard  
Saint Louis, MO 63167