BACKGROUND INFORMATION ON PATENT AND DATA RIGHTS ON INVENTIONS & DATA RESULTING FROM IR&D

SUMMARY OF BACKGROUND
INFORMATION ON PATENT AND
DATA RIGHTS (IR&D)

The DOD policy on acquiring patent rights resulting from IR&D was set forth in a letter to Senator McClellan in June 1971 (see p. 7, Tab 1). Subsequent to issuance of a Presidential Statement on Government Patent Rights in October 1963, Mr. T. Morris, ASD (IL), interpreted the statement in a letter to Senator McClellan. Mr. Morris stated, "it is our policy not to seek any rights in patents which may evolve from such independent research and development." Rationale was provided (Tab 1).

The DOD Policy on acquiring rights in technical data resulting from IR&D was summarized in Defense Procurement Circular #22 in January 1965. The position of the Department of Defense was stated:

> "The Government does not - and should not - automatically acquire rights in technical data resulting from a contractor's independent research and development, even though the costs may be said to have been substantially paid for by the Government through the Government's purchase of the company's products or services."

The fundamental rationale for the above policy was summarized as follows:

> "In short, it is the policy of the Department of Defense that we should pay our fair share of a contractor's normal and reasonable costs, including IR&D costs, with the Government acquiring no greater rights than accrue to any other customer buying the contractor's products or services. In this respect we should not deal with companies heavily engaged in defense work on a less favorable basis than with

companies predominatly engaged in commercial work. We believe that this policy is most likely to assure a continuing flow of new technology of importance to the national defense." (Tab 2)

The GAO challenged the DOD policy on patent rights in its draft report on IR&D in 1968 and suggested that the DOD should receive royalty - free license rights to inventions arising from IR&D. In Congressional testimony the DOD opposed the GAO suggested change in policy. (Tab 3)

The patent and data rights issue was reviewed by senior defense officials again in early 1970 prior to release of the DOD policy statement on IR&D/B&P. Secretary Packard approved the continuation of the DOD policy of not acquiring rights to technical data and patents arising from industries IR&D programs. (Tabs 4, 5, 6)

The GAO restated the DOD policy on patent rights resulting from IR&D in a December 1971 draft report on invention rights surveillance. The Air Force reply signed by SAF/RD supported the GAO recommendation for changes in the patents rights clause but contingent upon those changes being "not contrary to Air Force and DOD policy that neither requires nor desires patent rights that are developed under independent R&D programs." (Tab 7)

The Air Force IR&D Policy Council reviewed the question of patent rights in the summer of 1972. The concern was for a case in which DOD might pay royalties to a company for

the use of work which he did under IR&D sponsorship. In order for the Air Force to reopen the issue again, the Chairman felt that something significant and not previously considered should have occurred. The conclusion reached was that the Council would drop this as an action item but that both Secretary Hansen (SAF/RD) and Secretary Whittaker (SAF/IL) would informally discuss the subject with their counterparts in OSD (Tabs 8, 9, 10, 11, 12).

Secretary Hansen formally requested that the patent right subject be put on the DOD IR&D Policy Council agenda subsequent to informal discussions with Dr. Foster. The topic was discussed at the 9 November 1972 meeting. During the discussions Mr. Malloy (OASD/IL) indicated that the pros and cons of the patent and data rights question had been exhaustingly researched in the past and suggested that before any action was taken, Council members should review the many papers that had been written on the subject. Papers referred to were provided with the minutes (Tabs 1, 2, 3, 4, and 6). (Tabs 13 and 14)

PATENT AND DATA RIGHTS

LIST OF BACKGROUND MATERIALS

TAB NUMBER	DATE	ITEM
1.	4 Feb 64	Letter from ASD(IL) to Senator McClellan
2.	29 Jan 65	Defense Procurement Circular #22 Item II-A Letter to GAO Explaining DOD Policy as to Rights in Technical Data Resulting from IR&D
3.	Jul 68	DRAFT GAO Report, Government-wide Study of Contractors IR&D with DOD Congressional Testimony
4.	Feb 70	OASD(IL) Background Paper, Rights to Inventions and Technical Data Resulting from IR&D
5.	16 Feb 70	GAO Report, Allowances for IR&D Costs in Negotiated Contracts--Issues and Alternatives
6.	28 Feb 70	DOD Position Paper on IR&D/B&P. Approved by Secretary Packard
7.	Dec 71	Draft GAO Report, Need for Improved and Expanded Invention Rights Surveillance Under Government R&D Contracts with Air Force and DOD Comments
8.	11 Apr 72	Minutes of Air Force IR&D Policy Council Meeting
9.	16 May 72	RDMA Talking Paper, Patent Rights on IR&D
10.	May 72	SAF/GC Paper, The Governments' Entitlements to Patents and Technical Data Developed in IR&D

TAB NUMBER	DATE	ITEM
11.	30 May 72	Minutes of Air Force IR&D Policy Council Meeting
12.	6 Jun 72	RDMA Talking Paper, Patent and Data Rights on IR&D
13.	3 Aug 72	SAF/RD Letter to ODDR&E regarding Government Patent and Data Rights in IR&D
14.	9 Nov 72	Minutes--DOD IR&D Policy Council Meeting

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Honorable John L. McClellan
Chairman, Subcommittee on Patents,
Trade-Marks, and Copyrights
Committee on the Judiciary
United States Senate
Washington, D. C. 20510

4 Feb 1964

See page 6

Dear Mr. Chairman:

This is a follow-up to Mr. G. C. Bannerman's letter of January 8, in regard to Contractors Independent Research and Development Programs (IRD) and patent rights.

Reimbursement of costs incurred by contractors in support of their IRD programs and recognition of such costs as one element of the total price in fixed-price contracts and variations thereof are covered by Part 2 of Section XV - Contract Cost Principles and Procedures (Cost Principles) of the Armed Services Procurement Regulation (ASPR). We believe it would be helpful and contribute to a better understanding if we provided a short discussion of the Cost Principles generally.

The Cost Principles

The present regulations were issued on November 2, 1969 for optional use immediately and mandatory use on and after July 1, 1960. They superseded regulations which had been in effect since 1949. The old cost regulations related to cost type contracts only and covered costs which were allowable, those which were regularly unallowable, and finally, those that were allowable only to the extent specially provided for in the contract. There was an entirely different set of provisions pertaining to costs allowable in settlement of terminated contracts. There were no provisions applicable to treatment of costs in the negotiation of prices under fixed-price type contracts.

With this lack of uniformity in mind, the Hoover Commission, the House Appropriations Committee, the House Armed Services Committee and the Comptroller General, at various times over a considerable period, all strongly urged the development of a set of comprehensive cost principles which would establish uniformity.

The Department undertook the development of a new set of cost principles which would give more detailed and precise policy guidance in the treatment of the many cost elements, and which would be applicable to all types of contracts or contract settlement situations. Accordingly, in

addition to establishing the contractual basis for reimbursability of elements of cost under cost type contracts, the regulation, as finally issued, provides guidance for the evaluation of estimated costs in negotiating prices under fixed-price, incentive, and price redeterminable contracts and subcontracts, in those instances where such evaluation is required to establish prices for such contracts. Finally, it provides the contractual basis for the negotiation of settlements of terminated contracts.

In general, it is our policy under our normal purchase contracts to allow as costs our allowable share of the contractors' normal costs of doing business so long as they are reasonable. With certain exceptions, the new regulation recognizes most costs incurred in the operation of a business as being either reimbursable under cost contracts or recognizable under fixed-price contracts. (The exceptions, which are not allowable, include such things as interest costs, entertainment expenses and most advertising expenses). Independent research and development cost is but one of the many elements of costs of doing business. Other costs include, for example, depreciation, compensation for personal services (including executive and incentive compensation), and maintenance and repairs, all of which are substantially greater than costs of independent research and development.

This regulation was the result of a number of years of staff effort in the Office of the Secretary of Defense and the three military departments and involved extensive coordination and discussion with other Government agencies, Congressional committees, and industry associations. It is generally regarded as a highly successful effort in the procurement regulation field.

We will now discuss the old and new ASPR cost principles as they pertain to independent research and development which is one of the matters of immediate interest to you.

Independent Research and Development

Prior to the issuance of the revision in 1959, the regulation provided that "research and development specifically applicable to the supplies and services covered by the contract" was an allowable cost (15-204(a)). Additionally, under other provisions of the regulation "general research, unless specifically provided for elsewhere in the contract" was unallowable (15-205(j)). Accordingly, independent general research could be, and frequently was, allowed as a cost under cost reimbursement contracts only if it was specifically provided for in individual contracts.

Since these former regulations applied only to cost reimbursement contracts, recognition of independent general research cost was always permitted in the pricing of fixed-price, incentive and price redeterminable contracts.

The present regulation changed this and costs of independent research, which includes basic and applied research, are allowable as indirect costs provided they are allocated equitably to all work of the contractor. On the other hand, independent development costs are allowable to the extent such development is allocated equitably and is related to product lines for which the Government has contracts. Any independent research and development costs, including amounts capitalized, which were incurred in accounting periods prior to the award of a particular contract are considered unallowable with the exception of certain cases where they may be allowable as pre-contract costs. Copies of ASPR 15-205.35 - Research and Development Costs - are furnished for your convenience.

The regulation (15-107) provides that it may be desirable to secure advance understandings as to the treatment of particular costs, including independent research and development, especially where reasonableness and allocability are difficult to determine, as where the contractor is not subject to the normal restraints of a competitive commercial business, or where the contractor is doing business with more than one department. These advance agreements serve to avoid disputes as to reasonableness of cost or allocability and avoid the necessity for many individual negotiations on the subject matter covered by the advance agreement each time a negotiated contract is entered into. Accordingly, the purpose of advance agreements is not to establish the allowability or recognition of costs which are determined and established by the cost principles, but rather to provide operating understandings with respect thereto.

Since research and development is one of the more difficult problem areas, DoD Instruction 4105.52 entitled "Uniform Negotiation for Reimbursement of Independent Research and Development Cost" was promulgated on June 28, 1960, copy inclosed. The purpose of this instruction was to provide a method for the joint negotiation of reasonable and uniform cost allowances of independent research and development expenses of certain contractors performing work for more than one military department.

Department of Defense Instruction 4105.52 established an Armed Services Research Specialists Committee to review, at the request of the negotiators, the independent research and development programs of Defense contractors for the purpose of (1) determining whether, in the presentations of their programs, an adequate segregation has been made between research and development, and (2) to determine whether the programs proposed are reasonable in scope and well managed. The Committee, as established, consists of a designee of the Director of Defense Research and Engineering who serves as Chairman, a designee of the Chief of Research and Development of the Army, a designee of the Chief of Naval Research, and a designee of the Air Force Systems Command.

As stated above, contractors who seek an advance understanding regarding the acceptability of the costs of their independent research and development programs may be required to submit a description of the planned program. These descriptions set forth the objective of the research or development effort, the planned approach for investigation and any past accomplishments obtained under similar or related programs. In addition, the budgeted expenditure as approved by management is set forth by project. These programs are reviewed by the Armed Services Research Specialists Committee upon request of the negotiator. The Committee reports to the negotiator its findings and recommendations concerning the scientific factors considered to affect the basis or extent to which such research and development programs are well managed and reasonable in scope and, hence, should be supported by the Department of Defense.

Preliminary to the negotiation of an advance understanding, the contractor is required to submit financial data relating to past expenditures for independent research and development for a period of three to four years. In addition, financial information is obtained covering sales and production volume, historical and estimated, and also a statement as to the proportion of Government business performed by the contractor. Information concerning the accounting treatment of independent research and development costs is obtained from the contractor and often is reviewed with the cognizant Government audit agency. Immediately prior to the negotiation meeting, current financial data is obtained to compare actual expenditures during the period with planned expenditures as set forth in the contractor's technical program.

Based upon recommendations from the Armed Services Research Specialists Committee concerning the scientific quality and reasonableness of the contractor's program and the financial data available to the negotiators, the advance agreement is negotiated to establish the level of support that the Government will accord the contractor's independent research and development program. This advance agreement is used in the negotiation of prices in all procurements where the contractor's actual or estimated costs are a major factor. It is also utilized in the allowability of costs under cost reimbursement contracts. The primary purpose of the advance understanding is the determination of reasonableness concerning independent research and development costs, and pursuant to the above-mentioned Instruction the agreements reached through centralized negotiation are binding on all departments for the time period involved.

To conclude the discussion on IRD program costs, we wish to advise you that the whole matter of IRD costs has been under intensive study for the past year. It is quite probable that the study may indicate a need for changes in policy, or method, or both, if so, such changes would in all probability be supported by different reasons and rationale than those outlined above.

Turning now to your letters of December 23 and 24, to the Military Departments, three bits of information were requested, namely:

"1. The names and addresses of all contractors with which such advance understandings were reached during fiscal year 1963, and the dollar amount of the contribution made by the Government pursuant to each of these agreements.

"2. Describe in general terms the justification for entering into each of these advance understandings.

"3. Indicate the patent rights clauses, if any, included in these agreements."

In regard to query number 1, it was agreed, as stated in Mr. Bannerman's letter of January 8, to provide information with respect to the contractors' fiscal year 1963, as distinguished from the Government fiscal year. The purpose of this was to give an order of magnitude for a single year and the agreements negotiated during the Government's fiscal year could and frequently do cover more than one year for a given contractor.

Agreements were concluded with 59 contractors covering fiscal year 1963 for each contractor. The composite results are summarized in the Table below:

TABLE

INDEPENDENT RESEARCH AND DEVELOPMENT COST COVERED BY ADVANCE AGREEMENT

(1) Total Proposed Cost of Contractors' Independent R&D Programs	(2) Amount Recognized as Reasonable by Government	(3) Portion of Col(2) Allocable to Government	(4) Contractors' Total Sales
$381,636,649	$240,449,184	$194,169,844	$21,315,002,000

The names and addresses of these contractors and the amounts claimed and allowed or recognized by each of the three Military Departments are set forth in inclosures attached hereto.

Some general observations as to advance agreements covering IRD program costs should perhaps be made. First, they do not cover the total costs incurred by the contractor. Cost sharing is a characteristic; for example, on an 80/20 basis, the Department will only reimburse or recognize for pricing purposes 80% of the cost incurred. Second, there is usually a dollar ceiling beyond which costs are no longer accepted by the Government. Finally, cost sharing usually starts with the first

dollar expended by contractor in order to exercise the sharing arrangement from the very beginning. Variations from these patterns will occur from time to time depending on the individual case.

You will note that the inclosures are marked "For Official Use Only" which does not indicate the degree of restriction we intend, hence we ask that individual company figures or the inclosures not be disclosed outside the Government. In short, we would not allow this information to become known to the public because it would be a breach of the understandings as to its receipt and use and contrary to our regulations.

As to query number 2, we believe the general reasoning for use of advance agreements covering IRD program costs described above is the justification in general terms for entering into these particular advance agreements.

In response to query number 3 as to patent rights, there were two cases where patent rights were obtained. The agreements with the Federal Systems Division of International Business Machines Corporation negotiated by the Air Force and with Western Electric negotiated by the Army each provide for royalty free license for any invention made under the program to the Government. The following are extracts from a summary of the negotiations:

IBM -

> "The contractor agrees that the Government has royalty free license rights for any inventions resulting from FSD IR&D effort from the beginning of the program in 1959. The contractor agrees that this applies to any FSD IR&D effort whether or not such effort was submitted as part of the contractor's brochure. This agreement does not apply to inventions resulting from Corporate Research."

Western Electric -

> "It is agreed to by the Contractor, that in view of the Government's substantial financial support of the subject Independent Research and Development program, that the Western Electric Company, Inc., will grant to the Government royalty free license rights as follows:
>
> "The Government will be granted irrevocable, non-exclusive royalty free licenses under patents for inventions conceived or first actually reduced to practice in the performance of the aforementioned "Program of Applied Research and Development on Military Systems and Components for Calendar Year 1963," to practice, and cause to be practiced, such inventions by or for the Government, throughout the world. Such licenses (1) shall be non-transferable, except that the Government shall have the right to grant sub-licenses to any foreign Government or international organization

> specifically for use in programs established by International Agreements for research, development, or production of weapons or equipment for mutual defense, and (ii) shall include the practice of said inventions in the manufacture, use, and disposition of any article or material, in the use of any method, or in the performance of any service acquired by or for the Government or with funds derived through the Military Assistance Program of the Government or otherwise through the Government."

The Army agreement with Western Electric, in addition to $3,700,000 for IRD program costs, also included an amount of $2,000,000 for Standardization, Manufacturing and Production Engineering. Under all the circumstances, the Army considered their support "substantial" within the meaning of ASPR 9-107.6 and invoked the procedures prescribed to obtain patent rights. The application of ASPR 9-107.6 was discussed in our letters of May 24, and July 6, 1961, and at the hearing held by the Subcommittee in early 1961. With respect to the IBM case negotiated by the Air Force, this appears to be an exception to the general rule.

We now wish to consider your letter of December 23, 1963, to the Honorable Robert S. McNamara, Secretary of Defense, which requests information as to whether the Department of Defense interpretation of the President's patent policy statement of October 10, 1963, applies to securing by the Government certain minimum patent rights as the result of Department of Defense contributions to contractor's IRD programs. The Department believes that the President's policy does not impose any requirements relating to obtaining patent rights as a result of contributions to contractor's IRD programs.

The President's policy, as we read and interpret it, is addressed to allocation of patent rights under contracts by means of which the Government sponsors experimental, developmental or research work, and not to such work initiated and funded by the contractor even if such work is indirectly supported by the Government in the price of supplies or services which it purchases in the same manner as by other customers of the contractor.

Mr. Bannerman's letter of July 6, 1961, to you set forth the reasons for not seeking patent rights as an incident of contributions by the Department of Defense to contractor's IRD programs. These reasons are restated below:

> "Briefly, it is our policy, under our normal purchase contracts, to allow as costs our allocable share of the contractors' normal costs of doing business so long as they are reasonable. Like any other customer, if we were to buy a television set or one hundred television sets we would expect the price to include our

allocable share of the manufacturer's overhead expense including independent research and development expense. Such expense, like depreciation of facilities or the cost of executive salaries is part of the normal cost of doing business and is appropriately allocated to all customers. When reimbursement is on this basis, it is our policy not to seek any rights in patents which may evolve from such independent research and development."

The policy quoted above seems to be perfectly fair and reasonable. Many companies cannot exist without maintaining IRD programs and this includes companies upon which we depend most heavily for our advanced weapons. We think it is well recognized that any business enterprise which seeks to make and sell products incorporating advanced engineering and technology must have the backing of in-house research and development capability. This means research and development facilities such as laboratories, and test equipment, which sometimes includes expensive environmental test chambers. It also requires a staff of competent scientists and engineers working on company programs which have solid scientific and engineering content.

The funds for constructing and staffing such facilities can come from the capital funds or from earnings, but in the final analysis such costs must be recovered from customers if the enterprise is to survive or succeed. The Government does not stand in any special relationship as a customer, and it, like other customers, should pay its share of the cost of operating an industrial firm which includes IRD program costs. It therefore, as any other customer, does not seek or expect patent rights when the price it pays for commercial products includes costs of IRD programs. Nor does the Department see any rational basis for applying more stringent rules, such as requiring patent rights if it supports IRD programs, simply because the contractor happens to have sales predominantly to the Government, provided the IRD expense is allocated to all customers on a fair and reasonable basis. We recognize, however, that in these instances there is greater than normal need to provide assurance that the expenditures are reasonable, i.e., no larger than would be spent by a prudent management in a commercially oriented business.

The above reasons are still considered to be the basis of a fair and equitable policy to be applied as a general rule. Accordingly, at the present time, in light of our view of what the President's policy was intended to cover and our reasons for not seeking patents under IRD programs as a general rule, we do not expect any change in the Department's position on this question as a result of the President's policy.

We expect to have a complete revision of the Section of Armed Services Procurement Regulation which treats of patent rights - (Section IX, Part 1) in the near future. For your further information, it is the

intention that this revision express fully the President's policy and provide the necessary guidance so that contracting officers can properly apply the policy.

We hope the foregoing information will be useful to the Subcommittee, and if we can be of further service, please advise.

Sincerely,

(Signed) Thomas D. Morris

Inclosures 3

Assistant Secretary
(Installations and Logistics)

ITEM II--SELECTED ITEMS BASED ON GAO REPORTS AND DOD REPLIES, RELATING TO DOD PROCUREMENT POLICIES AND PRACTICES

The following items are published for information.

ITEM II-A: Letter to the GAO Explaining DOD Policy as to Rights in Technical Data Resulting from Independent Research and Development

ASPR Section IX, Part 2, deliberately does not provide for Government acquisition of rights in technical data resulting from a contractor's independent research and development work. The underlying reasons are set forth in a recent DOD letter to the GAO, commenting on a draft GAO report which stated that if the Government pays a share of the contractor's IR&D costs, the Government should acquire the technical data resulting from the contractor's IR&D program, and should be entitled to use this data for the purpose of establishing competitive sources of supply.

The DOD position should be understood in the light of the basic rationale for Government reimbursement of IR&D costs, which may be summarized as follows: (1) It is basic DOD policy to allow as costs under our contracts the contractors' normal costs of doing business as long as the amount is reasonable, the cost is properly allocable to Government work, and payment is not barred by law or public policy. (2) The cost of independent research and development is generally considered to be a normal cost of doing business. (3) DOD has adopted rules governing the allocability of IR&D costs to the Government. (4) Payment of IR&D costs is not barred by any consideration of law or public policy. (5) Therefore, it is DOD policy to pay our allocable share of contractors' IR&D costs, provided the amount is reasonable.

The following is taken from the recent DOD letter, with some minor revisions reflecting the fact that the GAO report was in draft form and has not been made public.

"The report takes the position that the company's refusal to furnish its technical data to the Army for use in soliciting competitive proposals was unwarranted in view of the fact that a major portion of the contractor's costs of developing the equipment had been paid for by the Government. The report recognizes that the equipment had, in fact, been developed privately under the contractor's independent research and development program and not under Government contract. However, the report considers that the Government paid for the development since (1) the Government was the principal customer for the products sold by the contractor and (2) the prices of these products are presumed to have covered the contractor's normal costs of doing business, including the costs of its independent research and development program. Thus, by buying the contractor's products, the Government "was indirectly supporting the development" of the equipment and, by virtue of this

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support, the report says that the Government should have been entitled to rights in the technical data resulting from the development.

Applying this concept generally, the report recommends that the Armed Services Procurement Regulation be revised to provide as follows:

1. In instances in which the Government has indirectly borne a substantial portion of the research and development costs of an equipment, the Government should negotiate for the acquisition of the technical data needed to obtain competition for the equipment, and

2. If a contractor refuses to negotiate for the transfer of its technical data to the Government, consideration should be given to disallowing the contractor's independent research and development costs.

As you know from previous discussions of this matter, the Department of Defense disagrees with the point of view underlying the above recommendations...

We believe that the position recommended in the report is contrary to the best interests of the Government because it would inevitably result in discouraging businessmen from using their engineering talent and other resources for the development of products designed to meet the needs of the Government. It is a truism that one of the primary sources of strength of the American economic system is to be found in the incentives that the system affords to inventive talent and capital. Among the most important of these incentives is the prospect of earnings that an inventor or developer may reasonably anticipate from the sale of products that turn out to be marketable. The policy expressed in the report would effectively smother this incentive as far as defense contractors are concerned by making it clear in advance that rights in data resulting from a company's independent research and development efforts would have to be turned over to the Government for use in enabling other companies to compete with the original developer in connection with any sales to the Government. The company developing a product would have to face the prospect that the profits from these sales might well go to companies that had absolutely nothing to do with the development.

If companies that develop new products for Government use at their own risk and initiative may thus be denied the rewards normally afforded successful risk takers under our economic system, they will obviously have little motivation to continue to expend money, talent and other resources on the development of Government-oriented items. This would be a serious loss. Independent research and development has been a source of ideas and products of immense value to military technology as well as to our economy and technology generally. In the opinion of the Department of Defense, this contribution to the continued improvement of our weapons and military equipment is indispensable.

The basic premise on which the report relies is that if a development is substantially supported by the Government, the Government should have a right to acquire and use the pertinent data for the purpose of obtaining competition. The difficulty with this position is that it fails to draw a distinction between research and development which is directly sponsored and paid for by the Government and research and development which is privately sponsored, with the Government contributing to it only in the sense that customers generally may be said to contribute to a company's independent research and development -- that is, by buying the company's products.

In those cases in which the Government does directly support a particular R&D project under a Government contract, DOD regulations clearly provide for the acquisition by the Government of sufficient rights in data to establish competitive sources. It has never been suggested, however, that a customer, in buying a TV set or an automobile, should similarly acquire rights in the seller's designs and technical data (or in its facilities and equipment) even though the price includes a pro rata share of the seller's research and development costs as well as his other normal costs of doing business. The customer gets the item paid for and nothing else.

The report, however, would establish a different rule if the customer happens to be the Government, since it would give the Government rights which no other customer obtains. In fact, the report takes the position that if the Government does not acquire such rights, the Government should not pay the full price for the company's products but should reduce the price by the amount of the Government's allocable share of the company's IR&D costs. All other customers would of course be expected to continue to pay their share and, presumably, they would also be expected to pick up the Government's share as well, or the company would be required to absorb the Government's share itself. This would not only be manifestly unfair but, as stated previously, we believe it would inevitably impel industry to reduce to a minimum the R&D resources now directed to the development of products of a defense nature.

The particular elements of industry that would be most seriously affected by the recommended policy are those that would be most likely to use their resources for the development of products of a defense nature. Since the recommendation applies to situations in which "the Government has borne a substantial portion of the research and development costs," it would be invoked against companies that do a substantial amount of work for the Government, as opposed to companies whose business is predominantly of a commercial nature. The former, however, are the very companies which, by virtue of their special skills, experience, and orientation, are the ones whose contribution to defense technology is most indispensable.

The report speaks of the savings that would accrue to the Government if companies developing new products were obliged to give up their technical data to the Government for use in obtaining competition. Competition is

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of course a highly desirable goal but the private development of defense items by all companies, including those heavily engaged in sales to the Government, is even more important. The basic point to consider is whether such companies would undertake the development of defense-oriented items in the first place if they knew in advance that the resultant designs would be turned over to other companies that invested nothing, took no risk, and had nothing whatsoever to do with the development. A policy that would thus inevitably discourage the private development of defense items while ostensibly seeking to promote competition for such items would obviously be self-defeating.

In summary, the position of the Department of Defense is as follows:

1. The Government does not -- and should not -- automatically acquire rights in technical data resulting from a contractor's independent research and development, even though the costs may be said to have been substantially paid for by the Government through the Government's purchase of the company's products or services.

2. In the interest of competition the Government may, and in many cases should, seek to negotiate with contractors for rights in the technical data resulting from independent R&D. (The Army sought to negotiate with the contractor in this case for the pertinent technical data.) Such negotiation, however, must be real negotiation and not compulsion. The contractor should not be legally bound to give or sell its rights to the Government and should not be penalized for refusing to do so, as for example, by being subjected to disallowance of its R&D costs under contracts with the Government. (A review of current DOD rules for acquiring rights in data stemming from independent research and development is contained in Defense Procurement Circular No. 6, dated May 14, 1964.)

3. Whether or not a contractor is willing to transfer its privately developed data to the Government, it is in the Government's interest to continue to support the contractor's independent R&D by permitting a reasonable allowance for IR&D costs in the prices of the products and services bought by the Government. As in the case of any other customer and of the public at large, the benefit that the Government gains by paying prices that include a pro rata share of the seller's independent research and development costs is the assurance of a continued flow of new and better products oriented toward the customer's requirements.

4. Defense policy is designed to assure that the amount of IR&D costs included in the prices charged for defense products is reasonable, i.e., no greater than would be expended by a prudent businessman conducting a competitive business. (For a detailed analysis of this policy, please refer to our letter to Senator McClellan.)

In short, it is the policy of the Department of Defense that we should pay our fair share of a contractor's normal and reasonable costs, including IR&D costs, with the Government acquiring no greater rights than accrue to any other customer buying the contractor's products or services. In this respect we should not deal with companies heavily engaged in defense work on a less favorable basis than with companies predominantly engaged in commercial work. We believe that this policy is most likely to assure a continuing flow of new technology of importance to the national defense."

Congressional Testing, 1969 Time Period

Dr. Foster

GAO Report on IR&D

In July of 1968, the GAO provided us with a draft of the report which has recently been issued. The draft report included four recommendations, one of which we opposed, two of which we considered valid, and a fourth that we did not oppose but do not endorse. This last recommendation suggested that the Federal Council for Science and Technology undertake a study to determine whether data rights should be obtained for items developed in IR&D programs that are substantially

supported by the Government. This subject has been considered in depth before and we have concluded that data rights should not be required. We believe that there are three good reasons for this position. First, I would cite normal business practices. In the normal business world, contractors do not give to their customers license or data rights in inventions growing out of their IR&D programs. We do not believe that the Government should deviate from this precedent without good cause. Second, companies engage in IR&D to enhance their competitive position in order to get new business and to make their company grow. If they are required to provide license and data rights to the Government for distribution to all other contractors, it would mean that contractors who contribute no effort, facilities or profit dollars to IR&D would have access to all the same data. This would be unfair and would remove any incentive to perform Government-oriented IR&D work. Finally, a requirement that contractors furnish data and license rights would cause many contractors to take important projects out of their IR&D program and put them in special contractor-financed programs for which the contractor would not ask reimbursement. Since we expect that most contractors will continue to spend more for IR&D than we will reimburse, this will not necessarily cost the contractor any more money. It will cost the Government knowledge of the best IR&D work that is being performed.

Looking again at the GAO report recommendations, the first

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OSD-2796

RD-21

SCM-1

REPORT TO
THE CONGRESS OF THE UNITED STATES

GOVERNMENT-WIDE STUDY

OF

CONTRACTORS' INDEPENDENT RESEARCH AND DEVELOPMENT

(CODE 87208)

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BY

THE COMPTROLLER GENERAL

OF THE UNITED STATES

JULY 1968

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Rights to royalty-free use of inventions under IR&D

The Government patent policy stated by the President in his memorandum of October 10, 1963, provides that, subject to statutory restrictions, in any case where an invention or discovery is made in the course of or under any contract for research and development, the Government should, as a minimum, receive at least a nonexclusive royalty-free license throughout the world for governmental purposes. This patent policy statement does not make specific reference to inventions developed by contractors under IR&D, and according to information provided by the official who drafted the policy statement, the policy was not intended to cover such inventions.

AEC's stated policy with respect to patent rights arising under IR&D differs from the DOD/NASA policies. However, in practice the Government does not obtain rights to inventions arising from IR&D under the policies of any of these agencies. The positions taken by these agencies are described in the following sections of this report.

AEC patent policy and practice

Procurement regulations issued by AEC state that consideration should be given to the acquisition of patent rights when AEC accepts a substantial share of the cost of an IR&D project. The regulations do not specifically define what constitutes a substantial share of the costs of a project.

We were advised by AEC officials that in actual practice whenever the agency's cost participation in an IR&D project is

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less than 20 percent, the agency requires the contractor to submit a summary report on the results of an IR&D project, but does not seek patent rights. When the agency's cost participation is between 20 and 75 percent, AEC personnel stated that the agency would require a detailed report of the IR&D project and a nonexclusive, royalty-free license to any inventions arising from the IR&D project. If the agency's cost participation exceeds 75 percent, AEC would require the contractor to furnish all usable scientific and technical information and data, a nonexclusive, royalty-free license to any invention arising from the IR&D project, and the right to grant sublicenses for any purpose.

It should be noted that the AEC seeks to avoid substantial participation in contractors' IR&D efforts. We were told that in one case it appeared that participation in a contractor's IR&D project would exceed 20 percent, but because the contractor was reluctant to accept the AEC rights requirement, the AEC waived these requirements. We were advised by agency officials that AEC rarely participated in the cost of a contractor's IR&D project by more than 20 percent, and that, in fact, no instance has arisen under which either data or patent rights were acquired.

We also noted that at one time AEC had considered 10 percent as being a substantial share of the cost of an IR&D project. However, we were informed that when this 10 percent rule was employed during IR&D negotiations several contractors acceded to a reduction in cost participation to below 10 percent so as to avoid the granting of any rights to AEC.

As explained previously, AEC will accept an allocable share of the cost of IR&D projects which benefit AEC contract work. We were

informed by an AEC contractor that, in preparing a list of such projects for presentation to AEC, any projects involving company rights to inventions are excluded. This procedure is followed in order to avoid conflict over patent rights.

DOD/NASA patent policies and practices

It is the policy of DOD and NASA not to require contractors to furnish to the Government scientific and technical information, data, and/or patent rights arising from the IR&D effort regardless of the extent to which the Government participates in such effort. This policy is based on the belief that IR&D is a normal cost of operating an independent business and that IR&D costs are therefore properly allocable to all customers. DOD and NASA believe that the Government does not stand in any special relationship as a customer, and like other customers, should not seek or expect patent rights when the price it pays for products includes costs of IR&D.

Prior to May 1964 the Armed Services Procurement Regulation (ASPR) provided that where a military department provided substantial financial support to a contractor's specific project within his independent research program, the department could obtain for the Government patent license rights to inventions, improvements, or discoveries conceived or first actually reduced to practice during or as a result of such support.

Although there was apparently no widespread application of this permissive regulation, the Department of Defense reported two instances where agreements with contractors required granting the Government royalty-free license rights to inventions developed under IR&D programs.

Limited application of the regulation was undoubtedly due to the stated general policy of DOD to not seek any rights in patents evolving from IR&D.

According to information furnished by 3 contractors included in our survey, a substantial portion of their patents resulted from inventions arising from their IR&D programs.[1] The Government is not entitled to royalty-free license rights for use of such inventions. These contractors are primarily engaged in R&D activities for the Government, and recover from the Government a substantial part of the costs of their IR&D programs in addition to earning profits. Under these circumstances, question arises as to whether as a matter of equity the Government should be entitled to royalty-free rights to use of such inventions.

In a memorandum dated October 18, 1966, the Director of Defense Research and Engineering posed the following question to the Defense Science Board:

> "(10) How can the DoD justify its position of not taking data and patent rights for IR&D, particularly in cases where the majority of the contractor's business is with the government?"

In response, the Defense Science Board task group, comprising corporate officials of six major defense contractors, one research firm, and one university, responded in February 1967, as follows:

> "The corporation that competes in the open market has a right to choose its markets. The fact that the government is a principal customer does not grant to the government any special privilege. In the analogous commercial situation, the customer obtains no rights to a seller's or contractor's independently developed background patent and data rights, even though IR&D is a necessary element of cost in the price of the product and is paid for by the contractor's customers.
>
> "Current DoD policy is consistent with general business practice. A departure from this policy would tend to make selected large components of industry captives of the government to an extent not now intended or desired."

1/ The other 4 contractors included in our survey did not provide information as to the number of patents resulting from their IR&D programs.

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Ratio of patents resulting from IR&D program to patents resulting from R&D contracts

As stated previously, information obtained from 3 contractors indicates that in many cases a significant portion of their inventions were attributed to their IR&D programs, under which the Government is not entitled to royalty-free license rights.

One company, for example, informed us that during a 6-year period it had been issued 22 patents for inventions resulting from its IR&D program, and it had received 17 other patents resulting from Government contract work to which the Government received royalty-free licenses. Another company received 23 patents during a 3-year period, of which 22 related to work under the IR&D program. Information obtained from another contractor showed that during the period from 1961 to 1966, 57 patent applications resulted from its IR&D work, compared to 26 from its contract R&D work. During the same period 35 patents were obtained by the same contractor under the IR&D work compared to 19 under the R&D work.

It should be noted that the expenditures by these companies for contracted R&D work were substantially greater than the expenditures for IR&D. However, in view of the fact that the work under the IR&D programs is generally exploratory in nature and normally does not result in production of a fully developed item, it is conceivable that the IR&D work might result in a greater proportion of inventions than contracted R&D work.

Our study also indicated that a close relationship may exist between contractors' IR&D programs and their R&D work performed

under direct Government contracts. In those cases where the R&D work is directly funded by the Government, the Government is entitled as a minimum to royalty-free rights to any inventions conceived or first reduced to practice in performance of the contract. On the other hand, if the work is not financed directly by the Government, as in IR&D programs, the contractor retains all rights to any inventions. Frequently the work begins under the IR&D program and subsequently is included in a direct Government R&D contract. At times, the Government contract may be followed by IR&D work in related fields. Under these circumstances, it would appear that it may be difficult to determine whether the Government should be entitled to rights to a given invention.

While, as stated above, the DOD policy is to not take rights for inventions arising from IR&D, we were informed that under certain circumstances contractors grant the Government rights to such inventions.

In the Air Force all newly developed equipment for use in the operation of aircraft must undergo successful flight testing before being approved for use. Most ideas that originate from IR&D require some further development and flight testing before an acceptable item is produced. Inasmuch as development and flight testing are expensive, most contractors, we were informed, prefer having this portion of the development process financed by the Air Force. The Air Force considers this work as representing the first actual reduction of the invention to practice and requires the contractor to grant it royalty-free rights to the invention.

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Our study did not include any review into the accuracy of the contractors' classification of inventions into those in which the Government is entitled to rights and those in which the contractor retains all rights. However, previous studies by this Office have disclosed a need by DOD to take steps to provide greater assurance that the Government is obtaining all of the rights to which it is entitled.

Revisions were made in the ASPR in October 1966 to (1) provide the contracting officer or his authorized representative access to contractors' records that are directly pertinent to the discovery or identification of subject inventions (inventions conceived or first reduced to practice under Government R&D contracts), (2) to require the contractor to forfeit all rights in any subject invention that he failed to report to the contracting officer, and (3) to prescribe more specific Government "follow-up" procedures for assuring that subject inventions are identified and the Government's rights are established and protected.

In view of the substantial amounts of contractor IR&D being absorbed by the Government, however, and the close relationship of IR&D to R&D (under which the Government is entitled to rights), we believe the question as to whether the Government should be entitled to royalty-free rights to use of inventions arising from IR&D programs warrants consideration.

The Federal Council for Science and Technology was designated by the President in his October 1963 memorandum and statement of Government patent policy to prepare at least annually a report concerning the effectiveness of the patent policy, including recommendations for revision or modification as necessary in light of the practices and determinations of the agencies in the disposition of patent rights under their contracts. We believe, therefore, that FCST is the appropriate organization to undertake a study that would provide information for developing the Government's policy with respect to rights to use of inventions arising from IR&D programs.

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See next page

Conclusions and Recommendations

Information obtained during our survey indicates that contractors' IR&D programs have resulted in certain benefits to the Government, and consequently, may warrant continued financial support by the Government. However, due to the limited nature of our survey, we cannot express an opinion as to whether such benefits warrant the cost involved.

The extent of participation by the Government in the cost of contractors' IR&D programs has been a question of major concern to Government and industry for many years. This matter is now of even greater significance in view of the continuing rise in contractors' IR&D costs and the Government's share thereof.

Furthermore, the Government's expenditures for IR&D are made to those companies already engaged in Government contract work. In 1966, 83 percent of all Federal R&D funds were used by two industries (aircraft and missiles, and electrical equipment and communication) and these industries consequently received the bulk of Federal IR&D expenditures. The effect of such concentration of IR&D expenditures also may warrant consideration.

Accordingly, we are making the following recommendations:

1. In view of the magnitude of the IR&D programs, their relationship to Government R&D activities, and their overall impact on the economy of the nation, we believe it essential that a Government-wide policy be established providing guidance to the participating Government agencies as to the extent to which and under what circumstances they should participate in contractors' IR&D costs.

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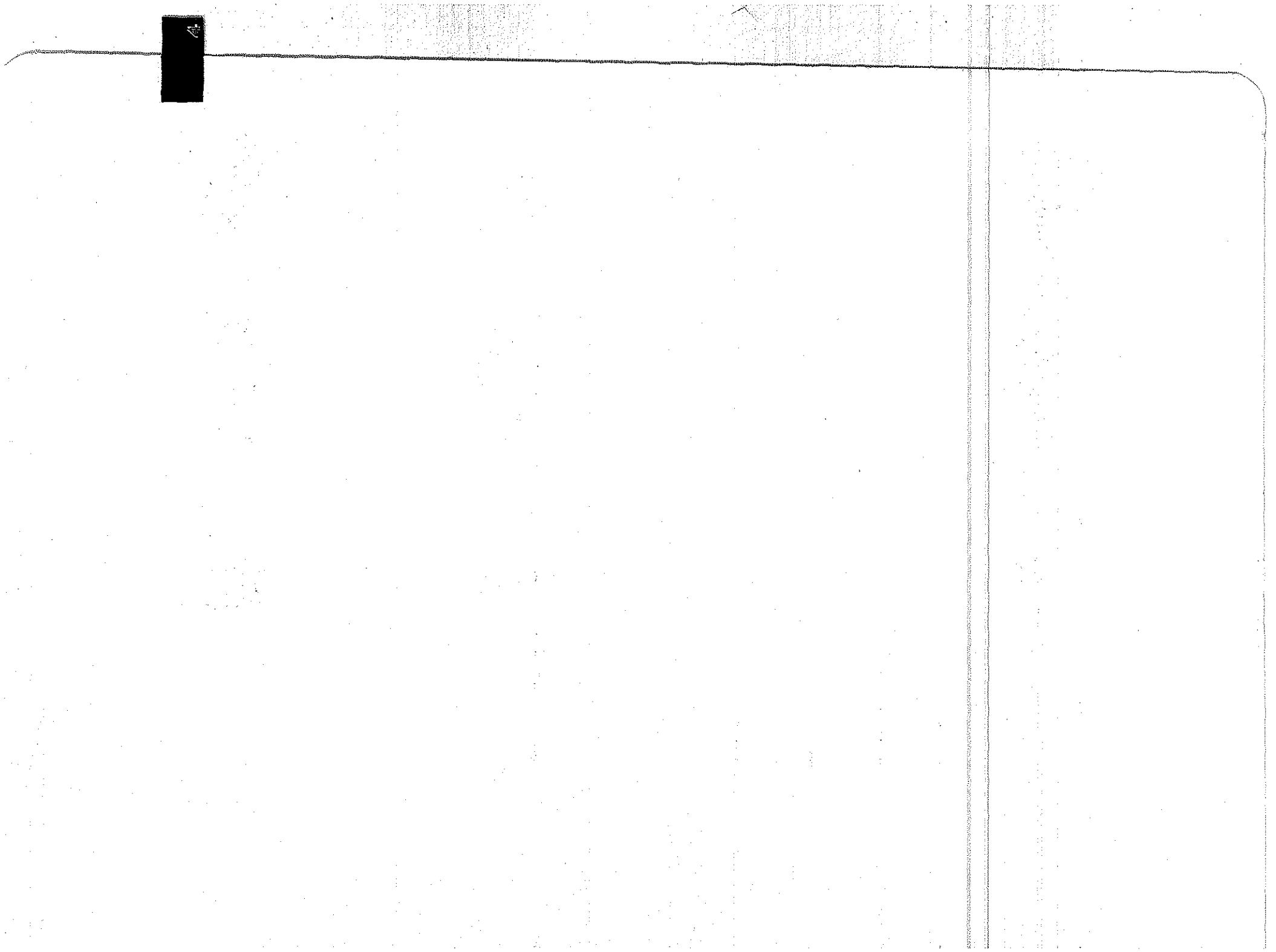
We recommend that a joint study be undertaken by the Office of Science and Technology and the Bureau of the Budget, with the assistance of the National Science Foundation, looking toward the establishment of an overall policy in this area, and that a report on such study be presented to the Congress for its consideration.

2. In order to minimize the expenditure of funds for unnecessary duplication of effort in Government-sponsored research, and to make greater utilization of scarce technical skills, we recommend that consideration be given to establishing a more systematic method of disseminating to Government personnel the information contained in the IR&D brochures. We have been informed that the Office of the Director of Defense Research and Engineering is conducting such a study and we recommend that arrangements be made for inclusion of non-Defense agencies in the scope of the study so as to obtain maximum potential benefit.

3. In order to minimize difficulties in administering IR&D caused by inconsistent methods of operations within the military services, we recommend to the Secretary of Defense that uniform procedures be devised. These procedures should include the prenegotiation arrangements, the brochure requirements, and the scope and nature of the technical evaluations.

4. In view of the substantial amount of IR&D costs absorbed by the Government, and the close relationship between IR&D and contracted R&D work, we recommend that the Federal Council for Science and Technology undertake a study as to whether the Government should receive royalty-free license rights to inventions arising from IR&D.

We are not making any recommendations with respect to other problem areas noted in our study pending evaluation of results of changes now under consideration.



RIGHTS TO INVENTIONS AND TECHNICAL DATA RESULTING FROM IR&D

The 1968 report of the General Accounting Office compares the practice of DoD and NASA with that of AEC. Unlike both DoD and NASA, AEC does take patent and data rights where that agency funds in excess of 20 percent of a contractor's IR&D. Noting the frequent relationship between IR&D and contracted R&D work, and the "substantial amounts" of IR&D costs being absorbed by the Government, the GAO report recommended consideration by the Federal Council for Science and Technology of the DoD/NASA policy of not taking rights to inventions and technical data arising out of contractors' IR&D.

The philosophy underlying the DoD policy as regards rights both in patents and in technical data has been explained in previous statements to Congress and to the General Accounting Office. There are, admittedly, arguments both for and against the DoD practice.

The argument <u>against</u> the policy most often advanced by GAO and Congressional critics is simply that it is unjustifiable for contractors to receive payment for IR&D without giving anything back to the Government for it. One thing they <u>could</u> give the Government is technical data pertaining to IR&D programs, and rights in that technical data, as well as royalty-free license rights in any patents covering inventions eventuating from those programs. Having such data and the rights to it would enable the Government to compete the procurement of pertinent items. Second, it would provide the Government access to much information which we are now helpless to obtain, but which is of interest to us.

Prepared by Walt Henderson, OASD(IL), Feb 70

The counter-arguments to the foregoing, and the rationale favoring the present DoD policy, are these:

First, it is not our purpose in supporting IR&D programs to get back any immediately tangible benefit. Rather, it is our purpose to encourage private investment in independent research in order to foster continued advancement of technology which is of interest to the Department of Defense. It is in the Government's own best interests that we advance and maintain the technological base on which a healthy and viable national industry rests. No company is likely to invest in private development of a marketable item if it knows that profits from the sale of it might well go to a competitor which contributed nothing to its development. Thus, the taking of rights in technology resulting from IR&D would inevitably discourage private investment in IR&D programs.

The contention that our present practice retards competition for defense contracts is only partially supportable. By reason of express statute, and a series of Comptroller General interpretations of it, privately owned patents cannot be used to obstruct competitive procurement by the Government.

Admitedly, there is no corresponding statute as regards the Government's unauthorized use of proprietary data. However, the only data that could be of any use in competitive procurement would be data which completely and accurately reveals details of an article or a process which has been fully reduced to practice. But experience shows, and the GAO report even states, that "work under IR&D programs is generaly exploratory in nature and

and normally does not result in production of a fully developed item." Work begun under the IR&D program, frequently, is included subsequently in a direct Government R&D contract, at which point the Government does obtain full data rights. And of course, in the acquisition of major weapons systems, competition for prime contracts is rarely precluded by the existence of proprietary data.

An argument can, in fact, be made that the policy, to some extent, enhances competition. Since we generally exercise approval of IR&D programs, they tend to relate to subject matter in which we have an immediate of foreseeable interest. Contractors' sustained involvement in these technological areas, independent of concurrent, directly-funded R&D, enables them to compete more effectively for future contracts which call for a capability in these areas. Moreover, the competition is up-graded by the higher level of experience of the proposers.

Should the Government reverse its policy and begin taking rights under IR&D, it can be fairly anticipated that many contractors will conceal their most valuable projects, with the result that the Government will lose visibility over them.

The fact that AEC takes rights in IR&D programs of its contractors is not necessarily persuasive that DoD should do the same. In the first place, the AEC regulations, though only recently (1968) codified, actually reflect what has been that agency's practice for years. And the practice itself stems directly from the statute which gives AEC broad responsibility and authority to acquire free Governmental accessibility to atomic energy. DoD does not have that authority, except insofar

as the AEC Act impacts on DoD. Atomic energy is a narrow field of technology in which the Government has been the principal developer.

In contrast, developmental programs of the Department of Defense draw upon a wide range of privately-acquired knowledge and experience in the industrial and scientific community. This factor accounts to a substantial degree for the difference in approach to IR&D policy, as between DoD and AEC.

Finally, the present policy rests largely on the equitable principle that the Government stands in no special relationship as a customer of industrial firms. Like other customers, we should pay our fair share of the cost of operating those firms; and those costs include research and development which is independent of that for which we contract directly. Of course, our policy does attempt to insure against abuse by providing that IR&D expense, like other overhead, is allocated to Government work on a fair and reasonable basis.

Notwithstanding the rationale for our present policy, it is conceivable that, in some special situations, a measure of equity and some practical benefits could like on the side of the Government's ability to exercise rights in technology emanating from contractors' IR&D. The GAO recommendation that the Federal Council for Science and Technology look into this question could be adopted as a means of searching for and describing just such special situations.

In favor of taking rights to patents and data under IR&D:

The Government receives some measurable benefit in terms of technological information, and to a limited degree, an improved basis for competitive procurement.

In favor of continuing the present policy of not taking rights:

The Government stimulates the continuing advancement of technological knowledge.

The increased expertise of firms having R&D programs up-grades the technical quality of proposals.

The Government insures its own continued visibility over valuable IR&D projects in which it has a definite interest.

The Government practice will conform with conventional commercial practice in paying its equitable share of IR&D as a legitimate overhead expense.

REPORT TO THE CONGRESS

Allowances For Independent Research And Development Costs In Negotiated Contracts--Issues And Alternatives

B-164912

Department of Defense

National Aeronautics and Space Administration

Atomic Energy Commission

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

FEB. 16, 1970

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CHAPTER 4

RIGHTS TO ROYALTY-FREE USE OF INVENTIONS UNDER IR&D

The Government patent policy stated by the President in his memorandum of October 10, 1963, provides that, subject to statutory restrictions, in any case where an invention or discovery is made in the course of or under any Government contract for research and development, the Government should, as a minimum, receive at least a nonexclusive royalty-free license throughout the world for governmental purposes. This patent policy statement does not make specific reference to inventions developed by contractors under IR&D; and, according to information provided by the official who drafted the policy statement, the policy was not intended to cover such inventions.

AEC's stated policy with respect to patent rights arising under IR&D differs from the policies of DOD and NASA. In practice, however, the Government does not normally obtain rights to inventions arising from IR&D under the policies of any of these agencies. We have been informed that AEC has recently negotiated an arrangement under which it will receive patent rights. The positions taken by these agencies are described in the following sections of this report.

AEC PATENT POLICY AND PRACTICE

Procurement regulations issued by AEC provide that, under certain circumstances, AEC obtain rights to inventions conceived by contractors in the course of or under IR&D projects. The regulations provide that:

1. Whenever the agency's cost participation in an IR&D project is less than 20 percent, the contractor be required to submit a summary report on the results of such an IR&D project if requested to do so however, the agency does not seek patent rights;

2. When the agency's cost participation is between 20 and 75 percent, the agency require a nonexclusive irrevocable paid-up license to AEC for AEC purposes to any invention or discovery arising from the IR&D project and, if requested by the agency, a complete and detailed technical report on any such invention or discovery; and the agency require that a summary report be furnished on the results of all such projects; and

3. If the agency's cost participation exceeds 75 percent, AEC require the contractor to furnish useful scientific and technical information and data, and a nonexclusive, irrevocable, paid-up license to the Government for all purposes with the right to grant sublicenses for all purposes.

It should be noted that AEC seeks to avoid substantial participation in contractors' IR&D efforts. We were told that in one case it appeared that participation in a contractor's IR&D project would exceed 20 percent; but, because the contractor was reluctant to accept the AEC rights requirement, AEC waived these requirements. We were advised by agency officials that AEC rarely participated in the cost of a contractor's IR&D project by more than 20 percent and that, in fact, no instance had arisen under which either data or patent rights were acquired.

We also noted that at one time AEC had considered 10 percent as being a substantial share of the cost of an IR&D project. We were informed, however, that, when this 10-percent rule was employed during IR&D negotiations, at least one contractor acceded to a reduction in cost participation to below 10 percent so as to avoid the granting of any rights to AEC.

As explained previously, AEC will accept an allocable share of the cost of IR&D projects which benefit AEC contract work. We were informed by an AEC contractor that, in preparing a list of such projects for presentation to AEC, any projects involving company rights to inventions are excluded. This procedure is followed to avoid conflict over patent rights.

DOD AND NASA PATENT POLICIES AND PRACTICES

It is the policy of DOD and NASA not to require contractors to furnish to the Government scientific and technical information, data, and/or patent rights arising from IR&D effort, regardless of the extent to which the Government participates in such effort. This policy is based on the belief that IR&D is a normal cost of operating an independent business and that IR&D costs are, therefore, properly allocable to all customers. DOD and NASA believe that the Government does not stand in any special relationship as a customer and, like other customers, should not seek or expect patent rights when the price it pays for products includes costs of IR&D.

Prior to May 1964 ASPR provided that, where a military department provided substantial financial support to a contractor's specific project within his independent research program, the department could obtain for the Government patent license rights to inventions, improvements, or discoveries conceived or first actually reduced to practice during or as a result of such support.

Although there was apparently no widespread application of this permissive regulation, DOD reported two instances where agreements with contractors required granting the Government royalty-free license rights to inventions developed under IR&D programs. Limited application of the regulation was undoubtedly due to the stated general policy of DOD of not seeking any rights in patents evolving from IR&D.

According to information furnished by three contractors included in our study, a significant portion of their patents resulted from inventions arising from their IR&D programs.[1] The Government is not entitled to royalty-free license rights for use of such inventions. Two of these three contractors are primarily engaged in R&D activities

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[1]The other four contractors included in our study did not provide information as to the number of patents resulting from their IR&D programs.

for the Government, and they recover from the Government a substantial part of the costs of their IR&D programs in addition to earning profits. Under these circumstances, question arises as to whether, as a matter of equity, the Government should be entitled to royalty-free rights to the use of such inventions.

In a memorandum dated October 18, 1966, the Director of Defense Research and Engineering posed the following question to the Defense Science Board:

> "(10) How can the DoD justify its position of not taking data and patent rights for IR&D, particularly in cases where the majority of the contractor's business is with the government."

In response, the Defense Science Board task group, comprising corporate officials of six major defense contractors, one research firm, and one university, responded in February 1967, as follows:

> "The corporation that competes in the open market has a right to choose its markets. The fact that the government is a principal customer does not grant to the government any special privilege. In the analogous commercial situation, the customer obtains no rights to a seller's or contractor's independently developed background patent and data rights, even though IR&D is a necessary element of cost in the price of the product and is paid for by the contractor's customers.
>
> "Current DoD policy is consistent with general business practice. A departure from this policy would tend to make selected large components of industry captives of the government to an extent not now intended or desired."

RATIO OF PATENTS RESULTING FROM IR&D PROGRAM TO PATENTS RESULTING FROM R&D CONTRACTS

As stated previously, information obtained from three contractors indicates that in many cases a significant portion of their inventions were attributed to their IR&D programs, under which the Government is not entitled to royalty-free license rights.

One company, for example, informed us that, during a 6-year period, it had been issued 22 patents for inventions resulting from its IR&D program and that it had received 17 other patents resulting from Government contract work to which the Government received royalty-free licenses.

A second company informed us that, during the 3-year period from 1964 to 1966, it had received 23 patents, of which 22 related to work under its IR&D program. We were told, however, that many of these patents were for inventions developed in earlier years and that a more current picture would be obtained by considering patents applied for during the same 3-year period. The company stated that during this period it filed 10 applications for patents and the Government was granted licenses to five of the 10 inventions involved. The company further informed us that the Government received five patents during the period on inventions developed by the company and applied for patents on an additional seven company-developed inventions.

Information obtained from the third contractor showed that, during the period from 1961 to 1966, 57 patent applications resulted from its IR&D work whereas 26 resulted from its Government-contracted R&D work. During the same period 35 patents were obtained by the same contractor under the IR&D work whereas 19 were obtained under the Government R&D work. The company informed us that during these years the Government-contracted R&D work represented about one third of its total business and that less than one third of its IR&D program costs had been reimbursed by the Government.

It should be noted that the expenditures by these three companies for contracted R&D work were substantially greater

than the expenditures for IR&D. However, in view of the fact that the work under the IR&D programs is generally exploratory in nature and normally does not result in production of a fully developed item, it is conceivable that the IR&D work might result in a greater proportion of inventions than contracted R&D work.

Our study also indicated that a close relationship may exist between contractors' IR&D programs and their R&D work performed under direct Government contracts. In those cases where the R&D work is directly funded by the Government, the Government is entitled, as a minimum, to royalty-free rights to any inventions conceived or first reduced to practice in performance of the contract. On the other hand, if the work is not financed directly by the Government, as in IR&D programs, the contractor retains all rights to any inventions. Frequently, the work is begun under the IR&D program and subsequently is included in a direct Government R&D contract. At times, the Government contract may be followed by IR&D work in related fields. Under these circumstances, it appears that it may be difficult to determine whether the Government should be entitled to rights to a given invention.

Although as stated above, it is not DOD policy to take rights to inventions arising from IR&D, we were informed that, under certain circumstances, contractors grant the Government rights to such inventions.

In the Air Force all newly developed equipment for use in the operation of aircraft must undergo successful flight-testing before being approved for use. Most ideas that originate from IR&D require some further development and flight-testing before an acceptable item is produced. Inasmuch as development and flight-testing are expensive, most contractors, we are informed, prefer having this portion of the development process financed by the Air Force. The Air Force considers this work as representing the first actual reduction of the invention to practice and requires the contractor to grant it royalty-free rights to the invention.

Our study did not include any review into the accuracy of the contractors' classification of inventions into those

in which the Government is entitled to rights and those in which the contractor retains all rights. However, previous studies that we made disclosed a need for DOD to take steps to provide greater assurance that the Government is obtaining all of the rights to which it is entitled.[1]

Revisions were made in ASPR in October 1966 to (1) provide the contracting officer or his authorized representative access to contractors' records that are directly pertinent to the discovery or identification of subject inventions (inventions conceived or first reduced to practice under Government R&D contracts), (2) require the contractor to forfeit all rights in any subject invention that he failed to report to the contracting officer, and (3) prescribe more specific Government "follow-up" procedures for assuring that subject inventions are identified and the Government's rights are established and protected. These revisions, if properly applied, should provide greater assurance that the Government is obtaining rights to all inventions developed under R&D contracts.

CONCLUSIONS

In view of the substantial amounts of contractor IR&D being absorbed by the Government and the close relationship of IR&D to R&D (under which the Government is entitled to rights), we believe the question as to whether the Government should be entitled to royalty-free rights to the use of inventions arising from IR&D programs warrants further consideration.

As previously stated (p. 30), we are suggesting that a Government-wide policy on IR&D be established by the Congress. One of the issues that we believe warrants consideration by the Congress in arriving at such a policy concerns the awarding of direct R&D contracts for those IR&D projects which the agency wishes to support. If such contracts are awarded, the Government would be entitled, as a minimum, to receive at least a nonexclusive

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[1] B-133307, November 19, 1964; B-133386, November 27, 1964; B-154814, June 25, 1965; B-133386, April 12, 1966.

royalty-free license to use any resulting invention throughout the world for governmental purposes. Therefore, we are making no further recommendations on this matter at this time.

Retyped for Legibility/Lt Col Jakubowski/AF/RDMA/5 May 72

SUBJECT: Independent Research and Development/Bid and Proposal

See pages 9, 18, 21

I. PURPOSE

The rationale for the recognition of Independent Research and Development (IR&D) and Bid and Proposal (B&P) costs, and the method of reimbursing these costs have been under study by the Department of Defense and industry for some time. A Department of Defense policy on reimbursement of these costs was proposed in December 1968. The General Accounting Office has disagreed with some portions of the proposed policy and the United States Senate has proposed legislation for reimbursing IR&D and B&P costs which is in opposition to our proposed method.

Therefore, the purpose of this paper is to:

1. Briefly review the Department of Defense rationale for accepting certain IR&D and B&P costs;

2. Bring out the issues that have been raised regarding our proposed method of handling IR&D and B&P costs;

3. Identify feasible alternative approaches to the problem;

4. Obtain a Secretarial decision as to the DOD policy to be followed in these areas.

II. BACKGROUND

In 1962 it was recognized that some changes and clarifications were required to the Department of Defense existing policy on the allowance of IR&D. This included a need to better define IR&D, recognize IR&D's relationship to both Bid and Proposal effort and other contractor independently conducted technical effort and to establish a more objective and uniform approach for determining a "reasonable" allowance for IR&D and B&P. DOD and industry groups, including the IAC and CODSIA, have been working since then to achieve an acceptable and equitable solution.

These efforts have been based on the DOD's fundamental rationale that: from a technical standpoint it is essential that contractors perform technical work independently conceived and directed toward continually improving their technological competence in order to assure that they can provide their

customers, including the DOD, with the most advanced technology, systems and hardware needed to meet customer demands in both a timely and technically competitive manner. From a business standpoint, we recognize that IR&D is a contractor's "life line" to the future and that such efforts must be accomplished in order for a company to remain viable and competitive. Therefore, since this activity is an essential cost of doing business, the DOD allows its supplier to recover reasonable costs in this area.

The technique for determining "reasonable costs" in these areas was the major problem in the drafting of the proposed DOD policy. Some believed that the ceiling amount to be allowed should be negotiated with each contractor, while others believed that a formula could be used instead of negotiation and would provide a satisfactory solution in all but a few cases. Those supporting the negotiation method subscribe to the premise that individuals provide better solutions when there are elements of uncertainty such as value of worth of programs. In order to eliminate some of the elements of uncertainty, however, it is necessary that the negotiators by supported by a detailed technical evaluation of each contractor's proposed IR&D program. This system has been used in the past, and has met with varying degrees of success. There have been problems. In some cases the negotiators have not used the technical evaluation and resulting recommendations to any degree in determining the company's recovery rate. Also, it has not been possible to develop objective guidelines for negotiations to provide uniformity between contractors in the outcome of these negotiations.

Those opposing the use of negotiation believed that the shortcomings of the negotiation process could be satisfied, and an equally effective result obtained, by the use of a formula for establishing a dollar ceiling of reasonableness below which contractors' costs for either the IR&D or B&P would automatically be allowed.

Based on the belief that contractors should recover certain of their costs in these areas, the Department of Defense, with inputs from industry, developed in December 1968 a proposed policy which was reviewed and approved by the Deputy Secretary of Defense. It is summarized as follows:

1. IR&D and B&P are so intimately related and so interdependent that any actions taken should be equally applicable to both cost areas.

2. The amount of IR&D and B&P costs to be accepted by the Government would be determined by a formula which uses a company's historically incurred IR&D or B&P costs and sales dollars. The formula which was recommended and approved would be as follows:

> For each company annually, compute the ratio of incurred IR&D or B&P costs to sales for each of the preceding three years. Select the two highest annual ratios. Average them. This average ratio times the sales for the current or projected year (dependent upon when the formula was applied) would indicate the dollar amount considered reasonable. To prevent abnormal sales (either up or down) from providing an unreasonable result, a "ceiling" and a "floor" would also be established beyond which a formula answer would not be allowed.

3. Either the Government or industry could appeal the resulting formula produced allowance. This appeal would be to the R&D and I&L Secretaries of the Military Service having the predominant dollar interest in the particular company. Based on the investigation a unilateral decision would be made by the Secretaries as to the costs that would be accepted for the particular contractor concerned.

4. In view of the relationships of IR&D and B&P efforts, contractors would be permitted to offset ceilings independently established for IR&D and for B&P by reducing one and increasing the other by a like amount.

5. All IR&D and B&P costs would be burdened with overhead in the same manner as a contracted project, except that G&A costs would not be included.

Also, the definition of the term "IR&D" was expanded to cover in addition to basic and applied research and development, that work which is generally referred to as a system or "Concept Formulation" study and/or which comprises a specific IR&D effort directed to the identification of a desirable new system, equipment or component or desirable modifications and improvements to existing systems, equipments, or components. B&P costs were also further defined to include costs of preparing, submitting, and supporting, to date of contract award, bids and proposals.

While IR&D costs which were incurred in previous accounting periods are unallowable, in order to prevent inequity, provisions were made under which contractors, in special

circumstances, would be permitted such recovery at the option of the Government.

III. ISSUES

Since releasing the proposed DOD policy on IR&D in January 1969, a number of issues concerning IR&D and B&P have been raised by the GAO, the Congress and industry.

GAO:

In regard to the proposed DOD policy:

(1) The GAO disagrees with the DOD proposed use of a formula for establishing a ceiling particularly for large contractors. This objection is based on (a) the fact that, based on previous years data, the formula would have allowed under negotiation and (b) their belief that the DOD proposed formula would not provide the degree of control over these costs that they deem necessary. This is based on the fact that the formula relates only to contractors historical expenditures and does not consider the value of the IR&D effort to the DOD. They believe that the allowance of an appeals procedure would become the norm and would add a tremendous administrative burden to the Government. Also, that the Government would lose its awareness of the projects being pursued in a contractor's IR&D program.

Comment - Discussions with GAO personnel indicate that they feel that IR&D and B&P costs can be better controlled by negotiation of advance agreements much as we do today. These negotiations would permit theDOD to limit its support for IR&D and B&P to an amount that would be considered reasonable in light of specific factors relating to the particular contracotr's case.

(2) The second issue raised by the GAO is that there is need for a more extensive technical review and evaluation than is presently performed. Under present procedures, brochures of the IR&D programs of industry are forwarded by the Armed Services Research Specialists Committee 1/ to appropriate Government laboratories for detailed review and evaluation. In some cases, laboratory technical personnel make on-the-spot reviews of the contractors IR&D program. The laboratories reports are then reviewed and consolidated and a report is provided to the appropriate negotiator.

1/ The Armed Services Research Specialists Committee was established by DOD Instruction 4105.52 in June 1960 with technical representation from each Service to provide technical reviews and evaluations of proposed IR&D programs. About 2 years ago, NASA membership was also added.

Comment - These reviews, both within the laboratory and at the contractor's plant, are a major workload for laboratory personnel since they are performed in addition to their normal laboratory duties. Also, since no money has been established for this specific IR&D review purpose, project money is used when visits to a contractor's facility are made. Technical review in greater depth than that now being performed will require greater emphasis and resources dedicated to this function at the DOD laboratory level.

In their Feb. 16, 1970 report on IR&D the GAO has suggested the following to theCongress:

(1) That all contractors' independent technical efforts, IR&D, B&P and other technical effort be considered as a single entity.

(2) That the DOD be required to break out and identify separately in its appropriation requests the amount estimated as required for this purpose.

(3) That the Congress should establish policy stating the extent to which, and under what circumstances government agencies should participate in the cost of contractors' independent technical effort.

The GAO also suggested as an alternative that should be studied:

(1) Extending the use of direct R&D contracts to include IR&D projects that the agency wishes to support fully or on a cost sharing basis and,

(2) Authorizing an allowance for a stipulated percent of the remainder of the contractors total IR&D effort.

(3) Confining IR&D projects to those that have a direct and apparent relationship to a specific function of the agency.

(4) Financial support should be provided to companies with similar capabilities which do not hold government contracts.

CONGRESS:

Congress (primarily Senator Proxmire) has made a number of charges regarding IR&D/B&P which are aimed at two basic issues: (1) Control of these efforts by DOD, and (2) the

value of IR&D and B&P efforts to the Government. Specific legislation has been proposed which is aimed at providing greater control over IR&D/B&P (and other technical effort (OTE) which will be discussed below) and it is implied that by tightening controls the IR&D program will more directly benefit the DOD. The two major categories of charges and related comments are addressed below.

I. Control and Direction of IR&D/B&P

1. The DOD allows duplication of work.

Comment

There are two kinds of so-called duplication; first, duplication of IR&D work between contractors and second, duplication of IR&D work with contract work of the DOD. Duplication of either type serves no useful purpose to the DOD. This is looked for in our technical reviews. When such cases are identified they result in lower technical quality ratings which are reported to the Tri-Service negotiators. This is a consideration in setting the IR&D ceiling allowance for the company. We do allow parallel approaches aimed at solving the same basic problem, but we do not consider this to be duplication.

2. The DOD allows IR&D aimed at commercial effort.

Comment

A contractor with both Government and commercial interests has a need and a right to direct a part of his IR&D to commercial areas. The DOD allows IR&D costs in proportion to the DOD and commercial mix of business. The DOD reimburses a company for our fair and reasonable share of the company's total IR&D effort.

3. Contractors change programs without notifying or obtaining approval from DOD.

Comment

In order for a contractor to achieve optimum benefits from his IR&D program, he must be free to exercise managerial discretion and maintain program flexibility. The DOD does review a contractor's program to determine program and technical continuity. If the program changes are excessive, continuity will suffer and the company will receive a lower technical rating and ceiling on the amount that may be recovered.

4. DOD has little if any control of work being done.

Comment

The DOD does exert control over IR&D through two separate reviews. First, for those companies with which we negotiate an advance agreement a technical review of the IR&D program planned is made by DOD laboratories. They determine the technical soundness and value of the contractor's IR&D program in terms of overall planning, results, quality of effort and personnel engaged in the work, and overall continuity and stability. Results of this review are provided to the negotiator to be used as a factor in negotiating advanced agreements for IR&D. All IR&D costs are subject to a second review made after the fact by Government auditors who insure the reasonableness and allocability of the costs of the program in accordance with the advance agreement.

The present system provides only audit control for small companies with IR&D programs.

5. The formula approach provides less control than the present method.

Comment

The formula method does not accommodate judgment factors that in some cases are pertinent to the determination of reasonableness. However, this is taken into account by allowing for an appeal of the formula produced result by either industry or government when a formula-produced result is judged inappropriate.

6. Industry uses IR&D and B&P effort as a mechanism for hoarding technical people.

Comment

Industry maintains a basic nucleus of technical people working on IR&D programs. Some few technical people who have been held over from a completed contract effort are sometimes put to work on IR&D programs or on a B&P effort until subsequent contract work is available. This is neither a massive transition nor is it bad. It certainly should not be construed as hoarding.

7. Congress understands (from Senator Proxmire) that IR&D "as used in a general sense includes three types of technical effort." IR&D, B&P and OTE (Other Technical Effort).

Comment

IR&D is by definition that research and development work performed by a contractor which is not sponsored by a contract, grant or other arrangement. B&P costs are the costs of preparing bids or proposals on potential Government and non-Government contracts or projects including the development of engineering data and cost data necessary to support the contractor's bid or proposal. This is not IR&D.

OTE (Other Technical Effort) is a general term which has been used by the DOD to refer to various technical costs which are incurred by a contractor in operating his plant, but for his own reasons he does not classify as either IR&D or B&P. Some of the descriptions of this work have been "pre-proposal effort", "pre-design studies", "technical overhead", etc. In order to understand the extent of this practice and the dollars that are charged to these types of accounts, the DOD auditors have collected these various accounts under one common heading of OTE. It is not a new cost pool.

II. Benefits and Value to the DOD

1. DOD has little knowledge of the benefits derived from IR&D efforts.

Comment

Significant benefits do come to the Government from IR&D. These benefits are readily recognized by DOD laboratories who participate in the technical review, and these laboratory people provide an important influence on the direction and quality of contractors' IR&D programs. Through on-site review and personal contacts made by DOD scientists, the Government as well as the contractor are able to assess the relative quality of the IR&D projects and their value to the DOD. The contractor is vitally interested in knowing of the DOD reaction to his programs and wants to assure himself that his program is in fields which will improve his ability to capture business and sell improved products.

2. Work done under IR&D programs bear little relationship to DOD work or needs.

Comment

Contractors with both commercial and Government business will of necessity orient their IR&D to both customers. Neglect of either segment of his market in his IR&D program can only result in the ultimate loss of technical competence and loss of income.

Review of the IR&D programs as documented in the files maintained by the Armed Services Research Specialists Committee (ASRSC) will show that in the expert opinion of DOD technical personnel the IR&D programs of the largest companies do in fact bear a direct and vital relationahip to DOD needs.

3. The Government should receive rights to data or Patents coming from IR&D since the Government pays for IR&D.

Comment

The GAO has compared the practice of DOD and NASA with the AEC in regard to rights to data and patents coming from IR&D. Unlike both DOD and NASA, AEC does take patent and data rights but only where that agency funds in excess of 20% of a contractor's IR&D.

In 1968, the last year of record, in the divisions of companies performing DOD contracts the DOD reimbursed about 45% of the IR&D conducted by major DOD contractors; the remainder is reimbursed by other customers or comes from company profit. It has been DOD policy that the DOD is not entitled to receive rights to data and patents arising from IR&D. The question then arises, should DOD receive rights in proportion to its expenditure for IR&D? In most IR&D programs, projects are supported in part by commercial customers as well as by the Government. In such cases, it would be discriminatory on the part of the Government to insist upon rights which do not accrue to other customers supporting the same program. It is difficult to see how it would be possible to exercise only a partial right in intangible property.

The GAO draft report on IR&D did not have a recommended solution to this problem. However, they did recommend that the DOD policy of not taking rights to data and inventions arising from IR&D programs should be considered by the Federal Council for Science and Technology.

4. Congress (Senator Proxmire) feels that the AEC method for administering IR&D is better and has introduced a bill in the Senate to force its use on the DOD.

Comment

The AEC spends 49% of its budget of R&D compared to DOD's 10%. AEC's fields of interest are relatively narrow and more predictable than DOD; therefore, they demand pertinency of IR&D work to their program.

Additionally, the AEC does a large part, approximately 80%, of its business with Government Owned Contractor Operated facilities who by definition are limited in their market and mission. The DOD depends on private contractor's facilities, initiative, and management to provide the broad-based industrial R&D program necessary to support its many areas of interest. It would, therefore, appear that it is possible for theAEC, in their relative limited area of interest, to predict their technology area needs and therefore provide for IR&D as they do. This would not accommodate the DOD's needs.

INDUSTRY

Industry's position is that IR&D is a company's "life blood" and must be performed in order for the company to stay technically competitive and responsive. Industry further believes that decisions as to how much IR&D or B&P effort is needed must be the decision of company management considering all the competitive factors of the market place. Therefore, industry believes that the resulting costs should not be disallowed in whole or in part by their customers unless they show that the program is patently unreasonable, amount.

The DOD policy and practice is that these are valid necessary costs of doing business, and as such are reimbursable to the extent that we determine that they are reasonable and allocable to our contracts. In addition it is a general practice to cost share with the contractor on each dollar within the ceiling, or reasonable, amount. This sharing may be as much as 75% government 25% contractor.

IV. ALTERNATIVES

In the following paragraphs, a number of alternatives will be discussed for dealing with IR&D, B&P and the problem of rights to data and patents arising from IR&D efforts.

IR&D Alternatives

1. Discontinue the allowance of IR&D costs but add an equivalent amount to the 6.1 - 6.2 RDT&E account to be used on a direct contract basis.

2. Establish a budget line item account for IR&D which would provide Congressional review and approval.

3. Allow for recovery of IR&D costs through overhead: (a) by controlling such allowance on a contract by contract basis; (b) by negotiating advance agreements that would establish a ceiling limitation to be allocated to all work (DOD and other) of the contractor; and (c) by establishing a ceiling limitation by a formula rather than by negotiation.

The pros and cons of these alternatives are as follows:

1. Discontinue allowance for IR&D and add an equivalent amount to the 6.1 and 6.2 RDT&E account

PROS

a. The Government would exercise control over work to be done since this work would be a contracted effort.

b. There would be no question of the government's rights to technical data or inventions resulting from such work.

c. We could eliminate parallel approaches to the same problem which is possible now.

d. There would be complete visibility of the work by the contracting agency.

CONS

a. All such work would become directed R&D with the consequent loss of the originality, inventiveness and imagination of the broad base of technical "brains" throughout the country.

b. A contract effort with its associated government and contractor overhead costs would result in paying more than is currently the case for the same work.

c. Such a procedure would presume that the DOD always knows the exact areas to explore and can act as the sole judge of the embryonic concepts.

d. The funds associated with this effort would have to go through the normal budget and Congressional review and approval process and would diminish as a result of the cuts made in this area.

e. There would be a loss of visibility of the overall program of the contractor since he would still do some work on his own but would not request reimbursement of these costs from the government.

f. Competition would diminish since contractors without direct contracts for this type of work would not be able to keep pace technologically with contractors who had these contracts.

2. Establish a budget line for IR&D.

PROS

a. The resulting benefits in this area would be the same as those indicated in 1 above.

CONS

a. It would be difficult to establish the level of funds for such purposes and equally difficult to justify this position with Congress.

b. Such a system would require the establishment of an extensive and expensive reporting, administrative and audit system for handling the program.

c. Such work would tend to become "directed" R&D with the consequent loss of the originality, inventiveness and imagination of the broad base of technical "brains" throughout the country.

d. Such a procedure would presume that the DOD always knows the exact areas to explore and can act as the sole judge of embryonic concepts.

e. We do not know of an efficient or effective method for equitable distribution of a fixed sum of money to those contractors that would be incurring IR&D costs.

3. Allow for recovery of IR&D costs through overhead by establishing limitations for such cost allowance by:

a. Negotiation of IR&D limitations on an individual contract basis. (As proposed by Senator Proxmire)

PROS

(1) Only those costs determined to provide real benefit to existing Government contract work would be accepted.

(2) IR&D costs would probably be reduced. (Because much IR&D is directed toward future rather than current projects.)

CONS

(1) The policy for allowance of IR&D costs would vary on every contract written because contract related projects would be different for each contract.

(2) Standards for allowance of IR&D projects would not be uniform because contracting officers' judgements of what was "related" would vary and would be influenced by available dollars and other factors of doubtful relevance.

(3) Contractors would have difficulty maintaining continuity of their IR&D programs because they would have no advance knowledge of which projects would be supported until after they had negotiated contracts.

(4) The amounts of support to IR&D would probably be reduced since many projects pertaining to future rather than current contract problems would not be accepted. This would reduce the pace of technological effort in the defense industry.

(5) Unsuccessful bidders would have difficulty financing IR&D effort to keep pace with the successful bidder which would reduce their chances for competing for any follow-on business or next generation equipment. This would tend toward more sole source business.

b. Establishment of a ceiling limitation by negotiation of an advance agreement

PROS

(1) This procedure would establish a uniform allowance of IR&D costs to all government contracts in a contractor's facility, since a single DOD agreement would be written to establish the amount of IR&D costs that the contractor could recover against DOD contracts.

(2) Reviews in connection with these advance agreements would provide information to the DOD concerning the contractor's total IR&D expenditures, management, and specific projects included in his IR&D program.

(3) Technical reviews to support the negotiation would establish the degree of excellence of the contractor's IR&D work and its relationship to areas of DOD interest.

CONS

(1) It is extremely difficult to reflect the quality of the program in the reimbursement allowed.

(2) We have not been able to develop satisfactory criteria and guidance that would provide tests of reasonableness to be used in establishing ceiling limitations.

(3) Technical evaluations of IR&D programs would require substantially increased resources (man-hours and dollars).

(4) The cyclic nature of advance agreements keyed to contractors' fiscal year (most often calendar year) would result in a tremendous technical and administrative workload which could not be accomplished for all companies with whom the DOD does business.

c. Establish a ceiling limitation by formula for the IR&D program of the contractor

PROS

(1) Uniform procedures for recovery of IR&D costs are applied to all contractors.

(2) A contractor as well as the Government knows the procedures and ground rules to be used for making the reasonable determination.

(3) Minimum of administration of a system.

CONS

(1) The GAO has opposed the use of the formula since they believe that it would allow too great a recovery in these areas.

(2) The GAO believes that the allowability of appeals to the formula produced result would become a norm rather than an exception.

(3) The Congress has suggested that the formula lessens control over the large companies incurring IR&D costs.

(4) Formula does not provide for inclusion of factors which consider technical quality or effective management of IR&D programs.

BIDS AND PROPOSAL ALTERNATIVES

1. Establish a budget line item for B&P costs to be reimbursed directly to contractors submitting proposals to the DOD.

2. Allow for recovery of B&P costs through overhead: (a) by controlling such allowance on a contract-by-contract basis; (b) by negotiating advance agreements that would establish a ceiling limitation to be allocated to all work (DOD and other) of the contractor; and (c) by establishing a ceiling limitation by use of a formula.

Pros and Cons of Alternatives

1. Establish a budget line item account for B&P costs.

PROS

a. Would provide a method whereby Congress could establish a dollar limitation.

CONS

a. Not administratively practicable. In order to develop a budget figure, it would be necessary to find some basis for determining the amount needed. It would not be practicable to attempt to get this

information from the thousands of defense contractors, since a figure could only be developed on the basis of companies' historical B&P costs. For example, B&P costs in 1968 were 1.2% of the contract price. Therefore, this per cent, adjusted for inflation or other factors, would be the only basis for establishing a B&P line item amount. Such an approach would not provide better control than we now have.

b. There is no equitable way to allocate costs established by a line item to individual procurements. Each contractor's B&P effort varies depending on many factors such as backlog of work, rate of unsuccessful to successful proposals, etc. Under these circumstances, if some standard method of allocating B&P costs were used, such as per cent of contract price, the amount could be more than adequate for a contractor when he had a high backlog of work and little proposal activity and could be totally inadequate when the reverse is true. On the other hand, if B&P costs were based on individual contractor's needs, it is more than likely that the line item fund would become exhausted before all contracts were negotiated and some contractors would receive no reimbursement of B&P costs.

2. Allow for recovery of B&P costs through overhead by establishing limitations for such cost allowance by:

a. Negotiating limitations in each contract on a contract-by-contract basis.

PROS

(1) Would eliminate the need for any special negotiating group to establish overall ceilings for contractors.

CONS

(1) It would be difficult to write policy guidance that would ensure that each of the many contracting officers would follow a consistent policy in establishing limitations for the many contracts written with the same or different contractors. Adequate guidance would tend to be a formula which would obviate the need for individual contract negotiations.

(2) Because of the relationship between IR&D and B&P, contract-by-contract negotiation of B&P costs would require the same handling for IR&D to ensure that a common approach is used for each. All the disadvantages of handling IR&D in this manner are therefore applicable.

b. Establish a ceiling limitation by advance agreement that would be allocated to all work (DOD and other) of the contractor.

PROS

(1) Would establish uniform control. Under this procedure a single DOD agreement would be written with the contractor to establish the amount of B&P costs that the contractor could receive for all DOD contracts.

(2) Centralized negotiations would provide equitable treatment between the contractors. Reviews in connection with the negotiation of advance agreements would provide information to the DOD on the contractor's expenditures, management, effectiveness, and types of products and services for which bids are prepared.

CONS

(1) Total dollar cost to the DOD can only be determined after the costs have been incurred by the contractor.

(2) Objective criteria for establishing ceiling limitations are not available.

c. Establishing, by formula, a ceiling limitation that would be allocated to all work (DOD and other) of the contractor

PROS

(1) The formula provides an objective procedure for determining the B&P costs to be allowed against government contracts.

(2) A positive control, limiting the government's libability, is established.

CONS

(1) Formula ceiling may at times result in ceilings that are too high or too low.

(2) It would be difficult to develop meaningful factors for relevance of B&P effort to Government work and for contractors management that could be used in a formula for determining cost reasonableness in this area.

Patent and Data Rights Alternatives

Continue the present DOD policy of not taking rights to inventions and technical data arising out of contractors' IR&D efforts vs. adopting the AEC policy of taking patent and data rights where that agency funds in excess of 20% of a contractor's IR&D costs.

PROS

1. Retention of rights in these areas by a contractor encourages private investment in advancing the technology base of the United States. This is of direct benefit to the DOD.

2. Work begun under an IR&D program frequently is used in and becomes part of a direct DOD contract at which point the COC does obtain full data rights.

3. The Government is not a privileged customer. When the contractor has customers other than DOD and all customers have shared in the cost of the IR&D, it is not possible, based on the reimbursement of these costs, to establish Government rights to the resulting patents and technical data.

4. There is no need for a contractor to segregate his IR&D program (separating that for which he wishes to retain rights from that which he does not); hence, we retain technical visibility of his work.

5. Contractors will perform more worthwhile work where they believe they have a chance of improving their competitive position. This attitude would be lost if their "developed advantages" were given to a competitor who may possibly beat them out in a competition.

6. The administrative effort and cost to the Government would be substantially increased as a result of implementing a policy of acquiring rights to such data.

CONS

1. The Government is restricted in its ability to broaden the base of competition by not having technical data rights derived from contractors' IR&D efforts.

2. A Government development program with one company may be restricted since the company under contract cannot use information developed by another company under that company's IR&D program.

3. The DOD and NASA do not operate under the same policy as AEC. Therefore, there is lack of uniformity of policy between the three major Government agencies reimbursing IR&D costs.

VI. SUMMARY

As is indicated in the background section, the DOD has developed a revised set of cost principles covering the control and reimbursement of IR&D and B&P costs. Under the proposed policy, a formula would be used for control and the establishment of limits of reasonableness for these costs rather than using the technique of negotiation, the current practice. This policy was not implemented pending receipt of comments from the Comptroller General. Since the DOD approval of this policy last December, we have received official comments from the GAO which criticize the formula approach since they believe that it will allow a greater recovery of these costs than has been allowed in the past and will lessen the detailed Government control over these programs. Both of these points were will considered by the DOD during the formulation of the proposed policy. The GAO also pointed out that under this system technical data would not be as readily available to the Government as a result of discontinuing technical evaluation of contractors' IR&D programs. This was an incorrect conclusion since we had no intention of completely eliminating these technical evaluations. During this same time the Congress has also criticized the DOD on its control in these areas.

The GAO has also on Feb. 16, 1970 sent to Congress a report which suggests that the Congress should legislate the degree to which the Government will participate in such overhead costs of the contractor and that DOD should identify in its appropriations the estimated dollars to be used for reimbursing these contractor costs. Further they suggest further study on (1) requiring pertinency of IR&D to specific agency functions (2) directly contracting on a fully funded or cost sharing basis for IR&D work that we want and allowing some amount for the remainder and (3) providing financial support to companies that don't have Government contracts so that they keep up technically.

In view of both GAO and Congressional criticism and the recent GAO report, it appears that some modification of our proposed approach should be made or legislation adverse to these programs will be enacted. As a result of our lengthy study of this complicated subject, we believe that it would be in the best interests of the DOD to adopt a policy for the control and reimbursement of IR&D and B&P costs which makes use of both the negotiation of advance agreements and the DOD-developed formula. The specific recommendations follow below.

VII. RECOMMENDATIONS

1. Use individually negotiated advance agreements for the control and reimbursement of these costs for large defense contractors (approx. 100). Such agreements, after a formalized detailed technical review of the proposed IR&D program, will establish a separate dollar ceiling for the DODs; reimbursement of each of these costs, but allowing the contractor to combine the individual amounts into a single pool if he chooses; and requiring the contractor to burden these costs as he would for a contract, except that G&A would not be added. The requirements to negotiate a timely advance agreement will be enforced by automatically establishing a low threshold for recovery of these costs where no advance agreement exists.

2. Use the DOD developed formula for control and determination of reasonableness of these costs for the remaining large number of smaller companies who recover IR&D, B&P or OTE costs. This will provide a workable, uniform system that can be uniformally applied and one which will assure results that can be easily monitored and adjusted as needed.

3. That technical review and evaluation of contractors' IR&D programs, as currently established under DOD Instruction 4105.52 be strengthened and that detailed review and evaluation procedures be established and made uniform throughout the DOD. The system will require both the review of a company's individual IR&D projects as submitted at the time of the advance agreement and will be supplemented by periodic technical reviews of the contractor's on-going IR&D programs at his facility. In addition, a data bank will be established to provide a centralized body of IR&D project cost and technical information. This information will be available to the Government technical community at large.

4. That each of the Military Departments formally recognize the need to increase the support and resources needed to effectively perform the required IR&D technical reviews and evaluations by establishing a specific line item in the Management and Support Category of their RDT&E Program for FY 1971 to support this technical review and evaluation effort.

5. That the Department of Defense continue its present policy of not acquiring rights to technical data and patents arising from industries' IR&D programs.

/s/ John S. Foster, Jr.
John S. Foster, Jr.

/s/ Barry J. Shillito
Barry J. Shillito

Approved /s/ David Packard Feb 28, 1970

Disapproved _____

Retyped for Legibility/Maj Bethel/AF/RDM/20 May 74

UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

Procurement and Systems
Acquisition Division

Jun 20 1972

The Honorable
The Secretary of Defense

Attention: Assistant Secretary of Defense
(Comptroller)

Dear Mr. Secretary:

This is to inform you that we do not propose to finalize the preliminary draft report titled, "Need For Improved And Expanded Invention Rights Surveillance Under Government Research and Development Contracts.(OSD Case #3390, GAO Code 87309).

We believe that an invention surveillance procedure comparable to that used by the Air Force's invention Disclosure Review Board (IDRB)would give the other military services more assurance that appropriate rights to contractor-developed inventions are being received. Your comments of March 2, 1972, on our preliminary draft report, however, disagree with our conclusions and indicate that you would be persuaded to accept our views only if the IDRB concept were proven to be cost effective. We do not plan to make a cost-effectiveness study.

We were pleased with the receptiveness shown by the Air Force Contract Management Division of the Air Force Systems Command to our suggestions to improve the operations of the IDRB. We expect to periodically monitor the IDRB's progress.

Copies of this letter are being sent to the Director of Defense Research and Engineering the Departments of the Army, Navy, and Air Force; and the Director, Defense Supply Agency.

Sincerely yours,

/s/ Harold H. Rubin
Deputy Director
(Tech. Adv.,

cc: Director of Defense Research
and Engineering
Departments of Army, Navy and
Air Force
Director, PSAD
Director, DSA
WDL/fmo

7a

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

2 MAR 1972

INSTALLATIONS AND LOGISTICS

Mr. Harold H. Rubin
Associate Director (Research & Development)
Defense Division
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Rubin:

This is in response to your letter of December 23, 1971 transmitting for comment copies of a draft report titled, "Need For Improved And Expanded Invention Rights Surveillance Under Government Research and Development Contracts," (OSD Case #3390).

The report states that, "Our review was directed primarily toward evaluating the effectiveness of the policies, procedures and practices followed by DOD in the administration of Patent Rights clauses included in Government contracts." The report concludes, "In our opinion, DOD does not have a high degree of assurance that subject inventions reported by contractors under Patent Rights clauses are accurate and complete." It recommends that DOD incorporate the Invention Disclosure Review Board (IDRB) concept into the existing invention rights surveillance procedures. It further recommends that the Patent Rights clauses be revised to clearly provide for the right of access to contractor invention disclosure information.

The need for expanded surveillance procedures in this area is seemingly predicated on the presumption that, without such expanded surveillance procedures, the failure to report subject inventions might result at some future time in the payment of unnecessary royalties by the Government and might also result in infringement claims against the Government. Therefore, we view the primary issue presented by your report to be whether the current DOD regulations, contract provisions and follow-up surveillance procedures ensure adequate disclosure to negate or minimize such a possible future contingency. We would agree that the failure of a contractor to disclose a subject invention might result in some additional

cost in the future. However, the report does not demonstrate that the existing surveillance procedures are not adequate. There is also no significant evidence presented that the expanded surveillance procedures recommended would result in any concomitant benefit to the Government.

In FY 69 and FY 70 contractors disclosed respectively about 3900 and 2900 subject inventions to the military services under existing procedures and guidance. As your report notes, the Navy surveillance procedures identified 244 unreported subject inventions during this same period and the Army in FY 70 identified 108 unreported subject inventions. Your report recommends that the IDRB concept utilized by the Air Force Contract Management Division be applied throughout the DOD, presumably because more unreported inventions would be identified. On the other hand, your report indicates that the IDRB procedure initiated by the Air Force in 1965 has identified only 98 previously unreported inventions since its inception. Although one can only speculate as to what the results would have been if the IDRB procedure had been used by the other military services in FY 69 and FY 70, there is no evidence to indicate that more unreported subject inventions would have been identified. There is also no indication that the number identified by the Air Force would have been significantly different under some other system. While we have no objection to the Air Force surveillance procedure, we disfavor its adoption for DOD-wide application in the absence of any objective evidence indicating its superiority.

DOD Patent Clauses constitute about 5 pages in existing DOD contracts. The clauses include provisions for examination and for certain penalties to assure that subject inventions are reported. These provisions include (1) monetary withholding for failure to make reports, (2) forfeiture of rights in unreported subject inventions, and (3) an examination of records provision (for the contracting officer) patterned after the Comptroller General audit clause included in all negotiated contracts over $2500. Few contract clauses are as extensive and encompassing as these patent clauses. It is the consensus of the military services in commenting on your report that their current surveillance procedures are adequate and existing ASPR clauses are sufficient to protect the best interests of the Government.

We are most concerned with whether expanded surveillance would be cost effective. The report acknowledges the difficulty of measuring

benefits derived in relation to financial resources applied. It states that any attempt to quantify the costs/benefits would produce highly speculative results. In the absence of a critical evaluation of this factor, we are not persuaded to modify our present surveillance procedures.

It is our view that your recommendations if adopted would not add materially to increasing the number of inventions disclosed or identified. On balance, we believe that the majority of contractors have complied with the existing regulatory requirements and thus we have considerable doubt that the administrative effort and cost to adopt the GAO recommendations would be commensurate with measurable benefits.

We appreciate the opportunity to comment on this draft report.

Sincerely,

Glenn V. Gibson

Glenn V. Gibson
Deputy Assistant Secretary of Defense

AF/JACP/Mr. Herbert/hbg/35710/21 Jan 1972

JAN 28 1972

MEMORANDUM FOR THE DIRECTOR LOGISTICS AUDIT PROGRAM OASD(IL)RA

SUBJECT: GAO Draft Report on, "Need for Improved and Expanded Invention Rights Surveillance Under Government Research and Development Contract" dated December 1971 (OSD Case #3390)

The Air Force has been requested to provide comments to your office on the subject report.

RECOMMENDATIONS

Air Force concurs in the GAO recommendation that DOD should consider expansion of the current invention surveillance procedures to include DOD wide use of the Invention Disclosure Review Board (IDRB) concept. The construction of the IDRB and its policy and procedures within AFCMD for examining invention reporting systems of contractors in those plants under DOD-assigned Air Force cognizance are set forth in AFCMD ASPR Supplement, Change 1, dated September 8, 1970 (copy attached).

The Air Force concurs with the GAO recommendation that the Secretary of Defense take action looking toward a revision of the ASPR Patents Rights Clauses. The revision should clearly grant the Government the right of access to records necessary to determine whether the contractors' unilateral determination that inventions are non-subject inventions is accurate. However, as a condition to Air Force concurrence, the ASPR changes should be carefully drafted to insure that (1) they do not impose an unwarranted additional administrative burden on the contractor; (2) they do not authorize an unwarranted invasion of the contractors' right to privacy or otherwise deter needed contractor participation in the DOD R&D effort; and (3) not contrary to Air Force and Department of Defense policy that neither requires nor desires patent rights that are developed under independent R&D programs.

COMMENTS

The GAO report concludes that DOD does not have a high degree of assurance that subject invention reports by contractors under Patent Rights Clauses are accurate and complete. The GAO Report, however, considers that implementation of the IDRB invention surveillance concept of AFCMD provides adequate assurance that the Government is receiving

Cy to: SAF/RD
SAF/AAE
SAF/GC
AF/[illegible]G

from the contractors a report of substantially all subject invention reports it should receive. The IDRB surveillance system of AFCMD parallels the invention reporting follow-up system set forth in ASPR 9-109.2, as well as the system of surveillance conducted by Air Force which consists of monitoring inventions identified on Contract DD Forms 1423.

It is not possible to document the cost effectiveness of any of the invention surveillance systems employed within DOD, including that of the Air Force IDRB which the GAO considers to be producing favorable results. The draft report only assumes that "possible future patent royalty expenses and damage claims were avoided for those previously unreported subject inventions which were identified through Government surveillance efforts." It is, of course, probable that the efforts of additional qualified personnel and additional funds expended in this surveillance would produce results in the form of greater numbers of disclosures being reported as subject inventions. Bare statistics, however, can be misleading. Questions arise which are not answered in the draft report. Examples: (1) Do confirmatory licenses or other patent rights pass to the Government as a result of the identification of previously unreported subject inventions, or are only additional inventions disclosures obtained which later die in Government files? (2) Of what significant value are the inventions to the Government and the general public toward the advance of technology? (3) How many of the inventions are patented by the contractor? (4) How many of the inventions are patented and licensed to Government contractors or potential contractors? An additional question, though pertinent, is impossible to answer: How many of the inventions patented would later be identified as subject inventions as a result of royalty reviews, the processing of administrative claims for patent infringement, or defense of patent litigation? In the main only speculative values can be attributed to the results of any surveillance program.

All would agree that what is most desirable is an adequate system of checks and balances to keep contractors and Government personnel on their toes relative to the important area of invention reporting and follow-up while operating within a budget consonant with any reasonable value to the Government obtainable from such surveillance. The Air Force has been attempting to reach this end through the use of a very limited staff for the IDRB and the other systems of follow-up.

The GAO Draft Report recommends a change of the ASPR Patent Rights Clause to provide clear contractual authority to inspect contractors'

records with respect to inventions which they have unilaterally determined to be non-subject inventions; that is, made in the course of their independent R&D efforts. GAO assumes that the surveillance effort would be more efficient if the Government was empowered to review contractors' records relating to their inventions adjudged to be independently developed to see whether some of them in fact should have been determined to be subject inventions and to uncover any weakness in contractors' reporting systems. Many contractors, particularly those who have strong commercial positions supported by their independently developed patents, may strongly resist a contractual requirement that they disclose their records relating to their own inventions. These records are jealously guarded from competitors and closely held in confidence.

Signed
FRANKLIN J. ROSS
Deputy for Requirements
Research & Development

for GRANT L. HANSEN
Assistant Secretary
Research and Development

1 Attachment
Cy AFCMD ASPR Supplement,
Change 1

DRAFT

RD-91

DRAFT OF REPORT TO
THE CONGRESS OF THE UNITED STATES

NEED FOR IMPROVED AND EXPANDED INVENTION RIGHTS SURVEILLANCE UNDER GOVERNMENT RESEARCH AND DEVELOPMENT CONTRACTS

DEPARTMENT OF DEFENSE

(CODE 87309)

FILE BDMB

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AF/JACP Harry Herbert x-35710-

Don Singer

1498 Page 9 + 14

BY
THE COMPTROLLER GENERAL
OF THE UNITED STATES

AFSC Dan Lukasik x 5372

DECEMBER 1971

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GAO-333 (Rev. Feb. 70)

GPO 889-018

DRAFT

The policy also recognizes that the public interest would also be served by according exclusive commercial rights to contractors that have established nongovernmental positions wherein it is likely that inventions would be put into civilian use by the contractors.

DOD patent rights policy

DOD's policy and procedures with respect to acquiring property rights to inventions and discoveries resulting from the performance of Defense contracts are contained in section IX of ASPR. In accordance with the Government's patent policy, the procurement regulation identifies the specific circumstances under which DOD will obtain title or license rights to inventions. Basically, DOD will acquire or reserve the right to acquire title when:

1. A principal purpose of the contract is to develop or improve products or methods which are intended for commercial use by the general public, or which will be required for such use by governmental regulations.

2. A principal purpose of the contract is for exploration into fields which concern the public health or welfare.

3. The contract is in a field of science or technology in which there has been little significant experience outside of work funded by the Government and the acquisition of exclusive rights at the time of contracting might place the contractor in a preferred or dominant position.

4. The services of the contractor are for the operation of a Government-owned research or production facility or for coordinating and directing the work of others.

Conversely, where the purpose of the contract is to build upon existing technology and the work relates to a field in which the contractor has demonstrated technical competence and has established a nongovernmental commercial position, DOD will require from the contractor a nonexclusive

royalty-free license to inventions. Under these guidelines, it has generally been DOD's practice to acquire license rights to use subject inventions, rather than require full title.

It is the policy of DOD not to acquire for the Government invention rights arising from contractors' independent research and development programs, regardless of the extent to which the Government financially participates in such efforts. This policy recognizes that contractors' independent research and development programs are not performed pursuant to a direct contract; accordingly, DOD believes that no legal basis exists for obtaining rights in resulting inventions.

Contract invention reporting requirements

DOD requires that an appropriate patent rights clause be included in contracts where the performance of research, experimental, or developmental work is contemplated. DOD generally utilizes the ASPR Patent Rights (License) clause for such contract effort.

Under this ASPR clause, contractors agree to grant the Government an irrevocable, nonexclusive, and royalty-free license to use each subject invention throughout the world for governmental purposes. A subject invention, defined in the clause, is any invention or discovery, whether or not patentable, which is conceived or first actually reduced to practice in the course of or under the contract. The definition includes, but is not limited to, any art, method, process, machine, manufacture, design or composition of matter, and any variety of plant, which is or may be patentable under the patent laws of the United States or any foreign country.

AIR FORCE IR&D POLICY COUNCIL MINUTES

11 APRIL 1972

The third meeting of the Air Force IR&D Policy Council was held on 11 April 1972 at 0930 in Secretary Hansen's office. A list of attendees is attached (Atch 1).

Secretary Hansen opened the meeting with introductory remarks on the actions taken since the last meeting. He mentioned that at the DOD IR&D Policy Council meeting held on 8 February 1972, Dr. Foster asked the Services, on a quick reaction basis, to compile a list of quality examples of outputs from IR&D. AFSC did an excellent job and a notebook containing these examples was delivered to Dr. Foster on time. A copy was also provided to each Council member. Minutes from the DOD IR&D Council meeting were also distributed to the Council members.

The Chairman welcomed General Evans who has replaced General Kucheman as the AF/RD Council member.

The Chairman suggested that the Air Force IR&D Policy Council also include a representative from the General Counsel. The members agreed and a representative from the General Counsel will be invited. (Action: Executive Secretary)

Secretary Whittaker suggested that the Council look into the question of patent rights from IR&D programs. The Chairman suggested that the General Counsel member look into this area and brief at the next meeting. Secretary Whittaker offered staff assistance to SAF/GC. (Action: SAF/GC)

Secretary Hansen asked if there were any objections to the minutes of the last Council meeting held on 2 February 1972. Since there were none, the minutes were approved and the Chairman moved directly into the agenda.

AGENDA ITEM 1. Briefing by Auditor General on the Audit of Air Force Management of IR&D.

As this report goes to the OSD Comptroller, the purpose of the briefing was to inform the Air Force IR&D Policy Council members of its content. The audit report contained 12 recommendations intended to improve (a) technical evaluation procedures, (b) surveillance of the contractors' management of IR&D costs, (c) reporting of evaluation

16 May 1972
Lt Col Jakubowski
AF/RDMA - 75012

TALKING PAPER

ON

PATENT RIGHTS ON IR&D

At the last Air Force IR&D Policy Council meeting (11 April 1972) Secretary Whittaker suggested that the question of Patent Rights on IR&D be again reviewed. Mr. Munves, from SAF/GC, is preparing the legal presentation. This subject has been reviewed several times in the past with the conclusion reached each time that the Department of Defense does not require nor desire patent rights for IR&D.

A problem already exists in identifying all the inventions developed under R&D contracts (GAO report on "Need for Improved and Expanded Invention Rights Surveillance Under Government Research and Development Contracts," dated December 1971).

A DOD paper, jointly prepared by Dr. Foster and Barry Shillito in February 1970, reviewed the DOD rationale on IR&D and B&P. The following, dealing with patent rights from IR&D, is all quoted from this paper:

"In 1968, the last year of record, in the divisions of companies performing DOD contracts the DOD reimbursed about 45% of the IR&D conducted by major DOD contractors; the remainder is reimbursed by other customers or comes from company profit. It has been DOD policy that the DOD is not entitled to receive rights to data and patents arising from IR&D. The question then arises, should DOD receive rights in proportion to its expenditure for IR&D? In most IR&D programs, projects are supported in part by commercial customers as well as by the Government. In such cases, it would be discriminatory on the part of the Government to insist upon rights which do not accrue to other customers supporting the same program. It is difficult to see how it would be possible to exercise only a partial right in intangible property."

"Patent and Data Rights Alternatives

"Continue the present DOD policy of not taking rights to inventions and technical data arising out of contractors' IR&D efforts versus adopting the AEC policy of taking patent and data rights where that agency funds in excess of 20% of a contractor's IR&D costs.

PROS

1. Retention of rights in these areas by a contractor encourages private investment in advancing the technology base of the United States. This is of direct benefit to the DOD.

2. Work begun under an IR&D program frequently is used in and becomes part of a direct DOD contract at which point the DOD does obtain full data rights.

3. The Government is not a privileged customer. When the contractor has customers other than DOD and all customers have shared in the cost of the IR&D, it is not possible, based on the reimbursement of these costs, to establish Government rights to the resulting patents and technical data.

4. There is no need for a contractor to segregate his IR&D program (separating that for which he wishes to retain rights from that which he does not); hence, we retain technical visibility of his work.

5. Contractors will perform more worthwhile work where they believe they have a chance of improving their competitive position. This attitude would be lost if their "developed advantages" were given to a competitor who may possibly beat them out in a competition.

6. The administrative effort and cost to the Government would be substantially increased as a result of implementing a policy of acquiring rights to such data.

CONS

1. The Government is restricted in its ability to broaden the base of competition by not having technical data rights derived from contractors' IR&D efforts.

2. A Government development program with one company may be restricted since the company under contract cannot use information developed by another company under that company's IR&D program.

3. The DOD and NASA do not operate under the same policy as AEC. Therefore, there is lack of uniformity of policy between the three major Government agencies reimbursing IR&D costs."

RECOMMENDATION: "That the Department of Defense continue its present policy of not acquiring rights to technical data and patents arising from industries' IR&D programs."

This recommendation was approved by Secretary Packard on 28 February 1970.

Mr. Manves
SAF/GC

THE GOVERNMENT'S ENTITLEMENT TO PATENTS and TECHNICAL DATA DEVELOPED IN IR&D

This memorandum summarizes: (1) the history of current DOD policy regarding patents developed in IR&D, and (2) the ASPR clauses which concern technical data and patent rights. A typical patent rights case is appended to this memorandum at page 8.

A. Government Patent Rights Policy

President's Policy Statement - 1964

On October 10, 1963, the President issued a statement of Government Patent Policy applicable to all Executive Departments and Agencies (28 Federal Register 10943-10946, October 12, 1963; now expressed almost verbatim in ASPR §§ 9-107.2-.3).

The President's statement was interpreted by Thomas D. Morris, Assistant Secretary of the Air Force (Installations and Logistics), in a letter dated February 4, 1964, to the Honorable John L. McClellan, Chairman of the Senate Subcommittee on Patents, Trade-Marks, and Copyrights. Mr. Morris stated that "it is

our policy not to seek any rights in patents which may evolve from such independent research and development." The rationale for this policy was easily stated.

> The Government does not stand in any special relationship as a customer, and it, like other customers, should pay its share of the cost of operating an industrial firm which includes IRD program costs. It therefore, as any other customer, does not seek or expect patent rights when the price it pays for commercial products includes costs of IRD programs. Nor does the Department see any rational basis for applying more stringent rules, such as requiring patent rights if it supports IRD programs, simply because the contractor happens to have sales predominantly to the Government, provided the IRD expense is allocated to all customers on a fair and reasonable basis.

Mr. Morris concluded by saying that "in light of our view of what the President's policy was intended to cover and our reasons for not seeking patents under IRD programs as a general rule, we do not expect any change in the [Department of the Air Force] position on this question as a result of the President's policy."

Packard - Shillito - Foster Policy Paper - 1970

This memorandum reaffirms the previously announced President's policy of 1963. It recommends that "the Department of Defense continue its present policy of not acquiring rights to technical data and patents arising from industries' IR&D programs."

GAO Report on the Need for Improved and Expanded Invention Rights Surveillance Under Government Research and Development Contracts - 1971

Although this report focuses on the means by which the Government can determine and utilize its rights under Government-sponsored R&D contracts, it does restate the DOD policy regarding contractors' independent R&D programs. Thus,

> it is the policy of DOD not to acquire for the Government invention rights arising from contractors' independent research and development programs, regardless of the extent to which the Government financially participates in such efforts. This policy recognizes that contractors' independent research and development programs are not performed pursuant to a direct contract; accordingly, DOD believes that no legal basis exists for obtaining rights in resulting inventions.

B. IR&D Defined

ASPR § 15-205.35 states that a "contractor's independent research and development effort (IR&D) is that technical effort which is not sponsored by, or required in performance of, a contract or grant and which consists of projects, falling within the following three areas: (i) basic and applied research, (ii) development, and (iii) systems and other concept formulation studies."

IR&D costs are allowable in accordance with the provisions and specific limitations set out in ASPR § 15-205.35 (d,e). See also Act of October 7, 1970, Pub. L. No. 91-441, § 203, 84 Stat. 906.

C. Armed Services Procurement Regulation Clauses

The Government's entitlement to patents and technical data rights is, in a legal sense, readily determinable by reference to the ASPR. The pertinent ASPR clauses are summarized below. Problems concerning the Government's entitlement to such rights usually involve the interpretation and application of these ASPR principles with respect to the particular facts in question.

Technical Data Rights

"Technical data" for purposes of the ASPR, means recorded information, regardless of form or characteristic, of a scientific or technical nature. Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications and related information. See ASPR §9-201(b).

Pursuant to the "Rights in Technical Data" clause, the Government shall acquire "unlimited rights"--rights to use, duplicate or disclose, in any manner and for any purpose, and to permit others to do so--in seven categories of technical data. Of these categories, the two most relevant include

> "(i) technical data resulting directly from performance of experimental, developmental or research work which was specified as an element of performance in this or any other Government contract or subcontract;
>
> (ii) technical data necessary to enable manufacture of end-items . . ., or to enable the performance of processes, when the end-items . . . have been, or are being, developed under this or any other Government contract or subcontract in which experimental, development or research work is, or was specified as an element of contract performance, except technical data pertaining to items, components or processes developed at private expense."

See ASPR §9-203(b) (emphasis added). The Government acquires only limited rights in technical data pertaining to items, components or processes developed at private expense.

Thus, the extent of the Government's entitlement to technical data rights is linked to the existence of a particular contract. That contract--its special provisions,

schedules, statement of work, data requirements, etc.--provides the necessary framework within which the ASPR's data clauses are designed to operate. That contract is the yardstick by which it may be determined whether the data resulted from work specified as an element of performance or whether, perhaps, the data pertain to items, components or processes developed at private expense.

Legally, it is clear that data developed in a contractor's IR&D program is data developed at private expense. This will remain true only so long as the Government's IR&D policy continues to presume that IR&D data developed by a contractor with a substantial proportion of Government business is nonetheless data developed at private expense. There is no legal bar to the implementation of a contrary policy; nor is there legal cause to change the present policy.

Patent Rights

The "Patent Rights (Title) Clause", ASPR §9-107.5(a), provides that "the contractor agrees to grant the Government all rights, title and interest in and to each Subject

Invention." (It is presumed, of course, that the Government has already determined that such rights ought to be acquired. See ASPR §9-107.4.) Obviously, the definition of "Subject Invention" is crucial with respect to the scope of the Government's rights.

Subsection (a)(1) of the clause provides that "Subject Invention means any invention or discovery, whether or not patentable, conceived or first actually reduced to practice in the course of or under this contract." (Emphasis added.)

Thus the extent of the Government's entitlement to exclusive rights in a contractor's invention is determined by the particular contract--its special provisions, schedules, statement of work, etc.--under which or in the course of which the invention was "conceived or first actually reduced to practice." The Government's claim to the patent rights is made with respect to a particular contract. The ASPR clauses reflect no provision for the acquisition of patent rights to inventions developed in a contractor's IR&D program. Again, then, the Government can make no claim to inventions developed in a contractor's IR&D program.

D. An Example: The Chemical Milling Case

In 1946 the Army Air Force awarded to North American Aviation, Inc., a CPFF contract for study and research related to the NAVAHO Missile Program, a developmental program leading to the practical design of a supersonic guided missile. Thereafter, four additional CPFF contracts were awarded to North American for continued research, development, testing, and production of the NAVAHO guided missile system. The Government terminated the program in 1957, incurring a total program cost of $547 million.

The subject contracts contained patent rights provisions which granted to the Government an irrevocable, nonexclusive, royalty-free license to use any "subject invention" made in the performance of the contract. "Subject invention" was defined as any invention, improvement, or discovery (whether or not patentable) conceived or first actually reduced to practice in the performance of the experimental, developmental, or research work called for under the contract.

North American invented a basic chemical milling process. Inventor laboratory notes, technical reports, and other records of the contractor showed that the invention was made

to solve a problem arising in the performance of the missile contracts. When the Air Force first became aware of the invention, it raised the issue of the Government's rights to royalty-free use of the invention, but the issue was not resolved.

The patent issued on March 20, 1956, entitled "Process of chemically milling structural shapes and resultant article," is the basic chemical milling patent. It describes a process of selective removal of materials by chemical etching to close tolerances and is used when curved surfaces and intricate parts are involved and when mechanical milling of materials is inefficient or incapable of producing the desired results.

According to North American, if an employee-inventor stated that he charged his time directly to a Government contract in the conception or the reduction to practice of an invention, an investigation was then made to determine whether the invention was within the scope of work called for under the contract. If not, then no license was granted to the Government. Similarly, no license was granted to the Government where the inventor charged no time directly to a Government contract in the conception or reduction to practice of the invention.

The North American patent counsel determined that the basic chemical milling invention was made outside the scope of any contractual obligation to grant a royalty-free license to the Government. Interestingly, North American's director of accounting reported that all supervisory engineers charged their time to an overhead account, regardless of the work being done. Thus, the inventor's time would in no event have been charged directly to a Government contract. Furthermore, there was a credible argument that the invention was made during work conducted to solve problems under the contractual research and development work.

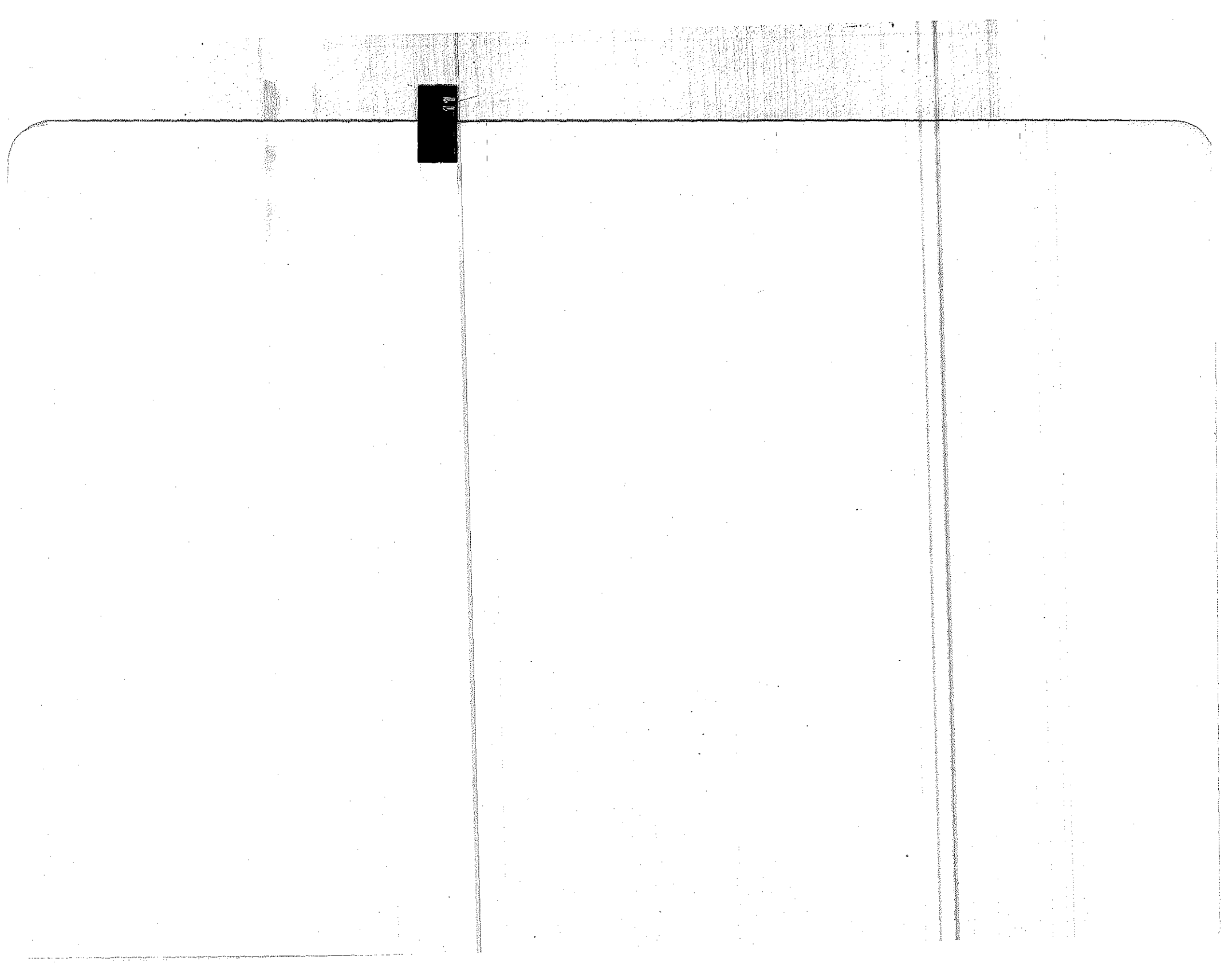
North American subsequently granted licenses for the use of the invention to Turco Products, Inc., who granted numerous sublicenses under the patents. Through June 1963, Turco was paid approximately $513,432 in royalty payments. The GAO determined that 93% of this amount was charged to Government contracts by the sublicensees. Half of this amount, was eventually received by North American, or approximately $238,750.

The GAO recommended that DOD take the necessary action to determine the Government's rights on the chemical milling patent, to recover previously paid royalties, and to avoid future payments of such royalties. It was also recommended that the ASPR definition of "subject invention" be broadened to establish a presumption that any invention made during performance of a Government contract is a "subject invention."

The General Counsel's Office, Department of the Air Force, undertook negotiations with North American to recover previously paid royalties. It was decided that a legal action for recovery of 100% of the royalty payments was inadvisable. Accordingly, an agreement was made between North American and the Air Force whereby (1) North American paid $156,819.72 to the Government as a settlement of royalties paid by Government

contractors prior to September 30, 1964; (2) North American agreed to rebate 50% of its share of royalties received by Turco from Government contractors after September 30, 1964; and (3) North American granted royalty-free licenses under 12 North American chemical milling patents and 5 patent applications in that area.

The ASPR description of "subject invention" has since been changed. A "subject invention" now means "any invention or discovery, whether or not patentable, conceived or first actually reduced to practice in the course of or under this contract." See ASPR § 9-107.5(a,b).



AIR FORCE IR&D POLICY COUNCIL MINUTES

30 MAY 1972

The fourth meeting of the Air Force IR&D Policy Council was held on 30 May 1972 at 1500 in Secretary Hansen's office. A list of attendees is attached (Atch 1).

Secretary Hansen opened the meeting with a few remarks on the events that have taken place since the last meeting. He mentioned that Mr. Munves has been appointed to the Council as the representative of the General Counsel. He stated that AFR 80-53, "Technical Evaluation of IR&D," was published on 1 May 1972. The Chairman also pointed out that the recent GAO report on DOD management of IR&D (Report No. B-167034) has been issued and, overall, was quite favorable to DOD. Copies of AFR 80-53 and a summary of the GAO report were distributed to the Council members by the Executive Secretary.

The Chairman then discussed the DOD IR&D Policy Council meeting held on 2 May 1972. The Aerospace Industry Association (AIA) presented their recommendations for improvement in technical evaluations of IR&D to OSD. Secretary Hansen pointed out that the AIA briefing was somewhat different than the report which was provided previously to the members. Copies of the AIA briefing were given to the Council members. Secretary Hansen felt that the AIA briefing showed a lack of awareness of the problems faced by DOD. He had already expressed these feelings to members of the AIA on two occasions.

Secretary Hansen asked if there were any objections to the minutes of the last Council meeting. As there were none, the minutes were approved and the Chairman moved directly into the agenda.

AGENDA ITEM 1. Patent Rights on IR&D.

Mr. Munves provided some historical background on the present DOD policy of not requiring patent and data rights for IR&D projects. This policy was reaffirmed in a Packard-Shillito-Foster policy paper in February 1970. During the discussion, the Chairman pointed out that this question has been reviewed several times over the years. As recently as February 1970 Secretary Packard approved the present policy. In order for the Air Force to reopen the issue again, the Chairman felt that something significant and not previously considered should have occurred. Mr. Munves stated that, since contractors have

complete management and accounting control, it is possible to classify the work involved so that significant inventions are beyond our patent rights. Oversimplified, we are entitled to rights under funded contracts only. The conclusion reached was that the Council would drop this as an action item but that both Secretary Hansen and Secretary Whittaker would informally discuss the subject with their counterparts in OSD. Copies of the paper prepared by the General Counsel are attached (Atch 2).

Secretary Hansen raised the issue of security classification and export controls on contractor IR&D projects. He said that under a contract we have security control, but under IR&D we do not. He cited the example of two engine manufacturers. One is prevented from exporting the technology developed on a Government contract because it is classified; the other, having developed the same technology at private expense under IR&D, may export the technology through the Department of Commerce. The Chairman asked the Executive Secretary to arrange to have both the security classification question and the question of export policy reviewed and presented to the Council at the next meeting. (Action: Colonel Kiely)

AGENDA ITEM 2. Role of the AFPRO in Technical Evaluations.

Mr. Lloyd Mitchell from AFSC made a presentation on the role of the AFPRO in technical evaluation of IR&D. The present role of the Contract Administration Office was described as: (1) Advice to the negotiator prior to and during advance agreement negotiations on (a) the validity of contractor forecasts re sales, overhead rates, and other forecast data plus recent past data, and (b) technical efforts performed in the past which were questioned as improperly categorized as booked by the contractor and pointing out problem areas for technical review and assistance, and (2) Administration of the advance agreement. The Council discussion pointed out that some of these functions, especially those concerning financial data and allowability of costs, duplicate the role of the Defense Contract Audit Agency. AFSC recommended that the AFPROs participate in the following five activities: (1) advise AFSC of problem areas requiring special attention, (2) check the accuracy of the material provided by the contractor, (3) assist in setting up and solving on-site review problems, (4) assist AFSC in negotiation of advance agreements, and (5) increase awareness of efforts conducted in IR&D.

The Council had no objections to the normal contract administration and advisory role where the capability exists. However, the Council did not agree to provide direction to expand the role of contract administration offices to include any new activities associated with technical evaluation of IR&D as recommended by the Air Force Auditor General. The Chairman will provide the Council's view to the Auditor General.

6 June 1972
Lt Col Jakubowski
AF/RDMA - 75012

TALKING PAPER

ON

PATENT AND DATA RIGHTS ON IR&D

The DCS/S&L, Directorate of Procurement Policy, HQ USAF, has completed a study (April 1972) on "Rights in Technical Data for Advanced Prototype Projects." In this study, there were nine recommendations made. One of these recommendations (#5) is that the ASPR should clarify the question of IR&D policy and its total relationship to rights in data.

The Air Force IR&D Policy Council meeting, held on 30 May 1972, discussed this issue. Mr. Munves, from SAF/GC, presented a 12 page paper entitled, "The Government's Entitlement to Patents and Technical Data Developed in IR&D." A copy of this SAF/GC paper, along with the Air Force IR&D Council minutes from this meeting, have been provided to both the study team leader (AF/LGP) and the AF/RD representative on this study team.

The Air Force IR&D Policy Council discussion of this subject pointed out that the DOD policy of not requiring patent and data rights for IR&D projects has been reviewed several times over the years. After an extensive review of the pros and cons in February 1970, this policy was reaffirmed by a Packard-Shillito-Foster policy paper. The Chairman of the Air Force IR&D Policy Council,

Secretary Hansen, felt that in order for the Air Force to reopen the issue again something significant and not previously considered should have occurred.

The conclusion reached by the Air Force IR&D Policy Council was that the Council would drop this item but that both Secretary Hansen and Secretary Whittaker would informally discuss the subject with their counterparts in OSD.

We have now had the General Counsel, the Air Force IR&D Policy Council, and the Data Rights Group review the DOD policy of not requiring patent and data rights on IR&D. No basis for challenging this policy has yet been developed. The Data Rights Study Group's recommendation that the policy be clarified and reflected in the ASPR is not meaningful. The policy is clear. The SAF/GC paper also shows that it is covered by the ASPR language. (Patents are obtained under contract - IR&D is outside contracts.) The Data Rights Study Group implies that the policy should be changed, but does not say how or why.

DEPARTMENT OF THE AIR FORCE
WASHINGTON 20330

OFFICE OF THE ASSISTANT SECRETARY

August 3, 1972

MEMORANDUM FOR LIEUTENANT GENERAL COFFIN, ODDR&E

SUBJECT: Government Patent and Data Rights in IR&D

Dr. Foster and I spoke on this subject by phone this morning. He is willing to reopen the matter at our next DOD IR&D Policy Council meeting. Attached are: (1) a Talking Paper on Patent Rights on IR&D, and (2) a memorandum, "The Government's Entitlement to Patents and Technical Data Developed in IR&D."

This subject was discussed in detail at the 30 May 1972 meeting of the Air Force IR&D Policy Council. The conclusion was that because of the review and decision in 1970 by Secretary Packard, there probably wasn't any change which we could successfully advocate. We remained concerned, however, for the case in which we must pay royalties to a company for the use of work which he did under IR&D sponsorship. Some companies have recognized the potential impacts of such a situation, and voluntarily grant rights for royalty-free government use of patents, even though there is no requirement to do so.

The problems of patent rights were greater when the industry sharing was greater. Also, people pay more attention to this sort of thing today than they have in past years.

I request that this subject be placed on the agenda for the next DOD IR&D Policy Council meeting, and suggest that you may want to distribute some information to the members in advance of the meeting so they can come prepared.

Grant Hansen

Grant L. Hansen
Assistant Secretary
Research and Development

2 Attachments
1. Talking Paper (Item 9)
2. Memorandum (Item 10)

Cy to (w/o Atchs): SAF/IL (Secy Whittaker)
AFSC/PP (Gen O'Connor)
AF/RD (Gen Evans)
AF/LGP (Gen Trimble)
SAF/GC (Mr Stempler)
AF/RD (Gen Glasser)
AF/RDMA(L/C Jakubowski)

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IR&D POLICY COUNCIL MEETING
9 November 1972

The fifth meeting of the IR&D Policy Council was held on 9 November 1972 at 10:00 A.M. in Room 2, OSD Conference Area 1E801 at the Pentagon. Those attending are listed on Attachment 5.

The Chairman, Dr. Foster, was delayed and in his absence General Coffin opened the meeting. Before proceeding with the planned agenda, the following items were discussed:

1. The interface between NASA and DoD technical personnel with respect to technical evaluation of contractor's programs. The NASA representative, Mr. Vecchietti indicated that the NASA review effort is much more limited than that of the DoD. A new guidance document, dated October 26, 1972, has been published and copies will be furnished to the secretary for distribution with the minutes of the meeting.

2. A meeting with the Comptroller General, Mr. Statts, is to be held on 27 November 1972. The Council was advised that this meeting is being held at the request of GAO and the agenda is being established. However, following the DoD presentations requested by the GAO, there will be a discussion period to discuss various IR&D problems. Technical evaluation effort and relevancy are two likely topics. The Council directed that OASD(I&L) and ODDR&E personnel -- as a team effort -- prepare an issue paper covering IR&D topics that will be appropriate for discussion with the GAO following the briefing. Further, the Council directed that a short position statement be prepared in support of each topic.

At this point the Council took up the regular agenda items beginning with Evaluation Simplification.

In accordance with an assignment made by the Council in the meeting on 2 May 1972, ODDR&E established a task to test five possible methods by which the magnitude of contractor IR&D technical reviews could be substantially reduced. Two of these proposals involved preparation of brief IR&D technical plans (brochures), rather than the more complete ones now required. Three other proposals involved limiting the scope of the technical reviews. The data relating to IR&D technical plans presently in the hands of DoD technical evaluation teams could be used

to check the validity of these proposals. After discussion, it was concluded that only the latter three proposals should be undertaken, and they should be done on a low priority basis. The other two projects were not considered likely to produce results of sufficient value to warrant the effort required. Further, it was agreed that the new guidelines for preparation of IR&D Technical Plans would be followed for the next year or two before attempting to make any changes in the approach. Too frequent changes -- and changes to guidelines before sufficient trial -- are disruptive and not conducive to effective operation.

Dr. Foster entered the meeting at this time and opened a discussion on the need for early action to provide negotiators with guidelines for establishing IR&D ceilings. He made the point that such a procedure should be simple and should involve such factors as the contractor's prior IR&D ceiling vs. value of the program, the relative promise or technical value of the proposed program, the expected level of business and the dollars the DoD expects to spend for IR&D in the year being negotiated. In addition, consideration should be given to developing priorities designed to increase IR&D effort in areas where the DoD considers R&D to be inadequate. For example, it may be appropriate to stimulate IR&D in the construction industry where there has been virtually no change in methods for years. Aerospace and satellite effort, on the other hand, may be excessive and reduction in DoD support may be appropriate.

Dr. Foster requested that OASD(I&L) review its production contracts to determine what areas might warrant additional IR&D support. He suggested that at least 6 to 8 areas be identified. The goal is to cover 60% or more of the DoD production contract dollars. DDR&E personnel are to work with OASD(I&L) on this and advise OASD(I&L) which technology areas should receive additional support and which should be reduced.

Following this discussion, the Council took up the patent and data rights agenda item. Mr. Jones presented an Air Force view that the DoD may be subject to substantial GAO and Congressional criticism in the future if a horror case develops in which the government is required to pay substantial royalty fees for the use of patents developed under IR&D programs that have been supported primarily with DoD dollars. Dr. Froesh, Navy R&D Secretary, supported the Air Force view and advised that the Navy recently had a case wherein a contractor attempted to impose royalty payments for use of such a patent. In the general discussion that followed, Mr. Malloy made the point that the problem presented by the Air Force is no different and involves no more risk than we have had in the past; yet,

the DoD has not experienced any real horror situations. Unusual problems have been handled on a case-by-case basis. In addition, it was noted by several Council members that a change in the DoD policy to ask for patent and data rights would undoubtedly cause contractors to "game" the system by holding patentable inventions outside the IR&D program. Mr. Malloy indicated that the pros and cons of the patent and data rights questions have been exhaustively researched in the past and suggested that before any action is taken, Council members should review the many papers that have been written on this subject. This was agreed to and the papers referred to are attached to these minutes.

Since the meeting had already run overtime, a complete presentation by Mr. Makepeace on the final report of the Committee on Nature, Objectives and Effects of IR&D was not possible; however, the recommendations of the Committee were discussed briefly and copies of the final report were handed out to all members.

After the meeting, Dr. Foster instructed the secretary to request the Council Members to further review the report and its recommendations and furnish comments and suggestions for action. These are to be submitted to the Council Secretary for transmittal to Mr. Makepeace by December 15. Upon receipt of these comments, Mr. Makepeace will reconvene the Committee, take appropriate steps to further develop the recommendations, and thereafter report again to the Council.

It is anticipated that numerous organizations outside the DoD may want copies of the report. The GAO and companies participating in the review have already made such requests. The Council review will provide a basis for making any necessary revisions to the report before it is released outside the DoD.

C. E. DEARDORFF
Secretary

Attachments (5)
1. Presentation on Evaluation Simplification
2. NASA Technical Evaluation document, 26 Oct 72
   (To be furnished later)
3. Documents on Patent and Data Rights (Items 1, 2, 3, 4, and 6)
4. Final Report on Nature, Objectives and Effects of IR&D
5. Attendees