An Appraisal of the Harbridge House Study From the Research and Development Agency Viewpoint

By
Leonard Rawicz
Assistant General Counsel
for Patent Matters, NASA

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If not already done, I would like to place the Harbridge House study in its context and indicate why such a study was sought, and to give you some insight into the general view of the attorneys representing R&D agencies who were charged with analyzing the study's application to government patent policy. I should further qualify my remarks by stating that they are an interpretation of the general views of the people monitoring and analyzing the Harbridge House study, and for this reason, they may be relevant and pertinent; but as they also represent the views of the "subject" of the study, these remarks may be dismissed as wholly incompetent, biased, and irrelevant -- take your pick.

The 1963 Presidential Memorandum on Government Patent Policy established the Patent Advisory Panel under the Federal Council for Science and Technology. The active members of

this Panel, for the most part, were made up of operating agency patent personnel. The Patent Advisory Panel concentrated its efforts on the implementation and administration of the President's Memorandum. In a concentrated effort to study in greater detail the principles established by the President's patent policy and to evaluate the effect of these principles on the public interest, the FCST established the Committee on Government Patent Policy in December 1965. The Committee, in addition to acquiring members from the agencies on the Federal Council, also included representatives from the Antitrust Division of the Department of Justice and the State Department. The committee thus reflected a broader view than that held by the R&D agencies and, in effect, had a higher mission than the Patent Advisory Panel, that is, to look at the overall government patent policy issue.

The Committee defined three basic patent policy questions. These were the effects of alternate patent policy on (1) achieving utilization of government financed inventions, (2) obtaining fullest participation of industry in government R&D programs, and (3) competition in commercial markets. A fuller discussion of these questions, if anyone is interested,

can be found in the FCST Annual Report on Government Patent Policy of June 1967 and in Volume I of the Harbridge House study.

After reviewing the various answers to these policy issues offered by the literature and in testimony to Congress, the Committee felt that most of these answers were based on opinion on the part of Government and industry representatives and that little had been done to accumulate facts and data on this subject. Government patent policy was, of course, a highly controversial issue in the late fifties and early sixties, and charges and counter-charges, opinions based on personal experience, self-interest, and sometimes ignorance bristled in the air. In the last few years, all this seems to have died out, which perhaps attests to the basic soundness of the President's Memorandum on Patent Policy, or to the fact that the American public cannot cope with the same issue for more than a few years at a time. It appears that government patent policy is no longer news, or perhaps no one wants to speak on this subject anymore without digesting the complete Harbridge House report -- a formidable task. That's probably why so many of you are here today -- to find out what this report is all about.

To fill this information gap, the Committee on Government Patent Policy contracted with Harbridge House, after a solicitation, to accumulate the data necessary to formulate informative answers to the questions on the effect of government patent policy on utilization, participation and competition. You have heard of these results from Mr. Miller's resume and the views of Professor Scherer, a person who, in my opinion, has a great deal to offer us from his in-depth understanding of the government procurement system and economic theory. He is a very hard act to follow -- I've tried before, failed miserably, but I'll try again. While I agree with most of the analyses and conclusions of Professor Scherer, I intend to offer the practical view -- or, if you have, a majority view, held by the operating patent personnel of the major government R&D agencies.

First, though, let me say that some of these people argue against anyone taking this study seriously. While they consider the study to be impressive and perhaps more quantitative or qualitative than any study ever performed on government patent policy, some question the validity of the data base, others the type of data collected, or the conclusions drawn by

Harbridge House regarding this data, and even whether any questions at all have been answered by this study, except how to spend $400,000; and, of course, some argue that even this lesson wasn't sufficient for some of us. Perhaps I'm too hard on the critics here. Let me give you a feel for a few specific criticisms voiced against this study.

1. Many of the findings are based on attitude interviews of biased parties who knew the purpose of this study;
2. There was a necessary interpretation by persons filling out the questionnaires which renders their answers questionable as they knew the purpose of the study;
3. Many of the findings are based on statistical data subject to serious questions because of the limited number of responses. The regression analysis, for example, used in the study suffers from the fact that only a small number of uses were reported;

4. The limited number of government-owned patents in the sample, and the fact that in some cases these patents resulted in government ownership after the contractor did not exercise his option to obtain title, seriously distorts the qualitative factors of the sample;

5. A high number of unreturned questionnaires -- only 2,024 of 3,398 sent were returned (60%), which represented only 192 of the 463 contractors involved (41%), rendering the statistical data questionable. Were the non-responders utilizers or non-utilizers, or people who refused to license their patents, or what?

6. The study may not apply to the President's memorandum as the terms used are different. Basically, the term "prior experience" used throughout the study is not equivalent to the term "established nongovernmental commercial position" as it is used in the President's memorandum.

Notwithstanding all the criticism and skepticism voiced, most of us view the Harbridge House report as a valuable addition to the patent literature, even though it did not establish new concepts or make any unanticipated findings. After the final reports were carefully analyzed, we were seriously concerned if we would be criticized for spending the taxpayers' money to establish what we already thought we knew to be the case. Perhaps this was merely a group of patent people practicing hindsight on large scale. Certainly, the data collected by Harbridge House is unique and will become more valuable in the foreseeable future as an aid for future researchers.

Now that we've looked at some of the criticism, let's see what the Harbridge House report basically says to us.

a. A single presumption of ownership to the inventions flowing from government research and development does not provide a satisfactory basis for either a government-wide patent policy or for the patent policy of a single agency or government program; and

b. Operational flexibility in the allocation of rights to inventions resulting from government research and development is needed for the government agencies to accomplish their missions under differing contracting situations.

The study indicated that to achieve (a) increased utilization of government sponsored inventions, (b) increased participation by industry in government research and development programs, and (c) increased competition in the market place, government patent policy had to consider factors such as:

1. The mission of the sponsoring agency, including the purpose and nature of the particular contract to be awarded;
2. The extent to which the Government developed the invention for public use and the promotional activities of the sponsoring agency;
3. The applicability and potential of the invention to the commercial market place;
4. The prior commercial experience of the contractor, and the relationship of the contractor's privately financed research and development to the government work; and

5. The size, nature and research orientation of the industry and market that will be using the invention.

Stated in another way, the Harbridge House study disagrees with the single presumption theory, the all white or all black position that either the Government should have title to all inventions made under R&D sponsorship of an agency, or that all the Government ever needs is a license to practice the inventions made under its sponsorship. There are some easy decisions which may be readily made on whether the Government or a contractor should retain title to the results of a particular research effort. However, most of the decisions are in the gray area where many of the factors noted by the Harbridge House study must be considered.

The Harbridge House study backs the basic soundness of a policy which permits decision on the allocation of rights at the time of contracting in certain situations where all the relevant facts, such as the mission of the agency, purpose of the contract, nature of the market, commercial experience of the contractor, intention of the agency to promote the invention etc., are known. Where these facts are not clear,

the decision on the allocation of rights should be deferred to a later time after the invention has been identified. As I will note, the basic argument by those who were analyzing the Harbridge House study was what did the study show about drawing the line dividing the three basic alternatives of the President's policy, which are:

1. initial option for title in the Government at the time of contracting [Section 1(a)];
2. initial option for title in the contractor at the time of contracting [Section 1(b)]; or
3. deferring the decision until after the invention was identified [Section 1(c), greater rights under Section 1(a)].

Since the reason for this study was to examine the principles of government patent policy, let us look in some detail at the Harbridge House study as it applies to the patent policy established by the Presidential Memorandum. First of all, Harbridge House taught us very little, if anything, about some elements of this patent policy. Nothing conclusive was related from the study to Sections 1(a)3 and 1(a)4 of the Presidential Memorandum.

You will recall these sections require the Government to retain the principal rights to inventions in the first instance when the contract pertains to new fields of science and technology in which the Government has been sole or principal developer, and when the acquisition of title by a contractor might give him a dominant or preferred commercial position [Section 1(a)3], and in the case where the contract requires the operation of a government research or production facility, or the coordination and direction of the work of others [Section 1(a)4].

The study supported a presumption of the normal acquisition of title by the Government whenever the purpose of the contract was public oriented since it indicated that exclusive rights in the contractor were generally not necessary in order to achieve the desired commercial utilization whenever (a) there is a waiting market for the results of the research, (b) the results of the research are developed to completion in a technical and commercial feasibility context, that is, little private technical development is needed to market the invention, and (c) the research is followed up with promotional and marketing activity by the government agency. This is the

type of work carried on by most of the "public oriented" government agencies. Further, where the above factors are present, and where there is little additional development cost necessary to work the invention, Harbridge House found that government retention of title "can be an effective spur to competition" and greater utilization as licenses are available to all comers.

Even in these situations an inflexible presumption of title in the Government is not in the public interest since examples were uncovered by the study where it appeared that participation by industry may be a problem. For example, in the case of a patent sensitive industry, such as exists in the medicinal-chemistry area, flexibility was needed even though the contracts fell under Section 1(a). The application of the exceptional circumstances provisions under Section 1(a) by the head of the agency was thought to provide sufficient flexibility to effectively solve any participation problem which fell under this provision of the Presidential Memorandum.

The Harbridge House study also adequately presents a case for the grant of "greater rights" to the contractor on a case-by-case basis after the invention has been identified,

if such a grant is in the public interest, to achieve the commercial utilization of the invention. This is so whether or not the invention results from a contract under the title section, Section 1(a), or the deferred Section 1(c). Where the grant of such greater rights is a necessary incentive to call forth private risk capital to bring the invention to the point of practical application, or the contractor has substantial equities in the invention, or the sponsoring agency does not intend to complete the development of the invention, or undertake its necessary promotion, the patent policy should be flexible enough to provide for a balancing of the interests of all the parties, including the public interest and to accordingly allocate patent rights.

There is some recognition that, while Section 1(c), the deferred situation, is broad enough, a revision is required to Section 1(a) which would permit contractors to obtain "greater rights" after an invention had been identified even though such invention may relate to health or welfare or to a product intended for use by the general public. This type of invention is termed to be an "object invention" and, while it may be necessary to provide a "tighter" test in determining whether or not to grant exclusive rights to contractors in "object

inventions," flexibility and guidelines to achieve such a grant are needed rather than an implication prohibiting such a grant as is presently found in Section 1(a) of the Presidential Memorandum.

The major area of disagreement is the application of the study to Section 1(b) of the President's patent policy as it affects the utilization of inventions, the participation of contractors in the government R&D program, and the effect on competition by the contractor's ownership of these inventions. Section 1(b) provides that if the contracting circumstances are not within Section 1(a), then where the purpose of the contract is to build upon existing technology for use by the Government, as opposed to use by the general public, then the contractor should normally acquire title when he has an established nongovernmental commercial position directly related to the field of the contract. Is this the correct place to draw the line? The study can be considered to be indecisive here. As to participation, the study attempted to establish that the greater the correlation between a contractor's private IR&D and the government work, and the greater his commercial orientation, the greater was the likelihood that he would refuse to participate in government work unless he was granted

title to the results of such work. But at what point a refusal to participate was reached was not identified by the study. To some, Section 1(b) is far broader than is needed to solve the participation problem, and in practice today, results in many contractors obtaining title to inventions without even his direct request therefor.

Section 1(b) is basically used by "mission oriented" agencies (DOD) and the Harbridge House study found that inventions made by these agencies are not generally applicable to commercial uses. As to utilization, the study further found that these inventions often need more technical development for their commercialization than do inventions from the "public oriented" agencies. The data also showed a statistical correlation between increased commercial use and contractors having both prior commercial experience and exclusive rights. Thus, providing for the principal rights in the contractor in Section 1(b) situations would tend to match exclusive rights and commercial experience -- the best ingredients to reach utilization. However, there is doubt that the Harbridge House data is statistically valid here, as in the cases studied, the contractor had the initial option to acquire title to resulting inventions

and most probably chose the inventions which had commercial value. Also, some inventions were so related to the existing products of the contractor that the contractor would use the invention with or without exclusive rights. Thus, the study failed to determine to what extent exclusive rights are a factor in the utilization of an invention and in what situations exclusive rights are necessary to achieve utilization. All it reported was that use was achieved and the contractor had exclusive rights and prior experience.

Further, as to competition, the study did reach the conclusion that permitting contractors to retain exclusive rights in inventions stemming from mission oriented R&D contracts did not have an adverse effect on competition for two basic reasons: (1) the rate of use of these inventions is low, and (2) contractors were generally willing to license these inventions. However, this may be discounted somewhat as there was little analysis in the study on the practical conditions of the licenses and no attempt was made to measure the accumulative effect of the grant of patent rights stemming from government sponsored work in a specific field of technology. Thus, it may be argued that one may discount the Harbridge House findings that there was no adverse effect on competition by the general retention of title to inventions by contractors in 1(b) situations.

A major issue thus becomes should the criteria of 1(b) be severely tightened so that it would be applicable only to solve the participation problem. There is some validity to the argument for this action, but the net effect of such a change would be that, in the majority of cases, the allocation of rights to inventions would be decided not at the time of contracting, but on an invention-by-invention basis.

A brief description of what this means may be of value. NASA presently uses a similar system, as it is required to do so by its enabling legislation. So, we have some experience here. The possibility of obtaining a "license clause" at the time of contracting would depend upon a prospective contractor showing that he would not participate in the contractual effort without such a clause. If his competitor would do so, such a position would probably disqualify him for the receipt of the contract. If he could not establish his need for a "license" patent clause, he would receive a title clause, which I will call a "deferred" clause, and which would operate very similarly to the present "deferred" or "title" patent clause of DOD, as these clauses are, in effect, the same. Each time an invention was made and the contractor desired to obtain "greater rights" or exclusive rights to the invention, he would have to make such a request to the contracting agency with sufficient documentation to support

the request. The sponsoring agency would have to review each such request on a case-by-case basis and render a decision, with adequate appeal rights reserved to the contractor. This would result in large workloads in the large mission agencies (DOD), a workload which they are not presently staffed or funded to undertake. Further, if the sponsoring agency denied a request for "greater rights" for one reason or another, it would most probably have to patent the invention itself. This is a much more difficult task for the Government to undertake than it is for the contractor, basically for the reason that the government attorney and the inventor are separated by both distance and organization.

If the sponsoring agency does not have adequate patent personnel or budget to perform the necessary administrative and professional tasks to obtain patent protection for the invention, it loses whatever defensive value it may claim from the issued patent, it loses the technical publication of the patent specification, and the possibility of ever providing an incentive by the grant of exclusive rights if such an incentive is necessary to achieve utilization.

The administration of a patent policy having a more restrictive Section 1(b) requires a larger patent staff and a greater budget than is presently available for such purposes in most large mission oriented agencies. Thus, there is great hesitation on the part of these agencies to consider the allocation of patent rights on a case-by-case basis.

The position to retain the broad sweep of Section 1(a) can also rely on the Harbridge House finding that the inventions falling in the present Section 1(b) category, while admittedly of low utilization, did achieve greater utilization than other inventions since the contractor had both prior experience and exclusive rights. Also, exclusive rights did not adversely affect competition since their utilization rate was low and they usually were available for licensing. And even if the competition problem isn't solved, the "march-in" rights of Section 1(b) and (c) would effectively alleviate this problem. Finally, the broad application of Section 1(b) tends to solve the participation problem since we are dealing in an area where the Government's work and the contractor's work are closely related. The arguments against changing Section 1(b) at this time are the most persuasive.

One should also consider another aspect of patent policy that, irrespective of the Government's policy on the allocation of ownership to inventions resulting from government sponsored research and development with industry, the Government's patent portfolio is going to continue to grow. One answer to cope with this accumulation is the suggestion that the Government could solve this problem and save money by retiring, on full pay, all of its patent attorneys. I have yet to find a government patent attorney who disagrees with this suggestion.

Another solution, discussed over the years by those who believe that it is impossible to stop this accumulation, and which I believe is supported by the Harbridge House study, is the grant of exclusive rights by the Government to a selected applicant, for a limited period of time, as an incentive to work the invention. The study found that when the invention is not directly applicable to commercial uses and requires substantial private development to perfect it, applies to a small market, or is in a field occupied by patent sensitive firms, and market potential alone is insufficient to achieve use of the invention, exclusive rights may tend to promote utilization.

Now, if this invention was initially made by a government contractor, it may be possible to grant back title to the inventing contractor if adequate assurances are obtained that he will promote the invention. In many cases, this is either not practical, or there is no such contractor, as the invention may have been derived from a government employee. A clear policy is therefore needed which would provide the guidance to government agencies on granting exclusive rights to other parties in order to achieve the utilization of the invention.