Government Incentives/Disincentives

An examination of the environment the U.S. government creates for technology transfer

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A steadily increasing proportion of the total United States R & D effort is being supported by the Federal Government. There has been little emphasis, and in fact far too little study and attention given, to the effect that U.S. Government patent and data policies may have in the area of technology transfer.

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Ultimately, what we are talking about is the kind of environment we are creating vis-a-vis incentives (or disincentives):

(a) To people to be creative and inventive.

(b) To disclose what they have generated.

(c) To companies and organizations to invest and assume risk in resource commitment of people, money and facilities to generate, manufacture and bring to market new products which are vital to growth and survival. Behind any new project, product or service there will almost always be found some person or small group of persons willing to stick their neck out, be different, and hold themselves up to the criticism which almost always follows any new suggestion. Thus, invention usually requires some system of rewards or incentives, perhaps even more than the traditional incentive of "necessity." It seems that psychological and/or monetary rewards in our free enterprise system are meaningful stimulants (and seem to have worked better, on balance, than the "hero medal" approach taken in many socialist countries).

Think of yourself in the position of the presidency of an organization. You have experience in a field which you are considering accepting government contracts. Obviously, the effect of government patent/data clauses on your expertise, your proprietary data position, and your inventions/patent position should be considered. Your situation might be affected by whether your position was based on (1) unpatented technology, (2) patented technology, (3) experience and concepts, and/or (4) a pre-established, well-defined, commercial market position in a field. Obviously, your attitude might vary and be directly affected in accordance with whether you were (1) a very small, struggling, fairly new organization, (2) a medium-sized company with a fairly well recognized "position" in the field, or (3) among the giants with a fully established, unquestioned position of technical strength. There are, of course, many variations of these factors which you are invited to consider. The following are clauses/concepts important to you in arriving at an informed decision regarding whether it would be wise to proceed with the government.

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First, it is interesting to note that the patent and data clauses of government contracts are oftentimes the longest clauses the government has to offer. One often finds that they take up fully half or more of the pages of a contract! The relationship has been an emotional and well-developed one that has generated a fine tuning of the clauses to cover many of the situations that may arise vis-a-vis background patents, compulsory licensing, reporting requirements, forfeiture of invention rights, and examination/review requirements.

Perhaps emotion and feelings run high because these clauses have immediate impact in sociological, political and philosophical areas, and the role that government has, or ought to have, in a free-enterprise society.

SPECIFIC CLAUSES/COMMENT

1. Authorization and Consent (the so-called "A & C" clause)

These clauses are based on statute (28 U.S. Code 1498) the purpose of which is to preclude, especially in defense-related situations, the government's being enjoined from utilizing patented inventions — the remedy being for an aggrieved patent owner to address the government in the Court of Claims for damages. This type of clause is almost always included in research and development-type contracts and, in effect, allows the contractor to proceed without concern for patents he may infringe in the course of providing the best technical product to meet government requirements. It should be noted that in contracts for supplies, as distinguished from R&D, a somewhat modified form of Authorization and Consent is often used, the government giving its "A&C" protection only if and to the extent it has accepted delivery of an infringing device. It is worthy of note that recent trends as evidenced in ERDA patent clauses are utiliz-

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ing a "Patent Indemnity" clause in which a contractor may be required to reimburse the government if in fact a patent owner sues and wins. Practically, in most circumstances, the operation of these clauses will be limited to goods which have previously been offered by the contractor as standard commercial items. The point to remember, however, is that Authorization and Consent may protect you from an injunction, i.e. from being "shut down," but it may not protect you from damage liability if you have a Patent Indemnity clause in the contract. Remember, A&C clause provides no protection for *data* or trade-secret infringement or misappropriation.

2. Patent Rights clauses

Because of time/space limitations, patent clauses utilized by all major government agencies cannot be analyzed and we will address primarily those policies of DOD as set forth in the Armed Services Procurement Regulations, ERDA, and NASA.

In considering patent clauses one must think in terms of "foreground" and "background" inventions and patents, the former being defined as those generated under a contract, and the latter, those previously generated by a contractor before a contract started (or before work authorized under some written understanding with the government) commenced. Foreground inventions are usually referred to as "subject" inventions. Typically, they are defined as any invention or discovery of the contractor "conceived or first actually reduced to practice in the course of or under this contract . . . which is or may be patentable under the patent laws of the United States of America or any foreign country." This is essentially the DOD/ASPR definition. ERDA and NASA are very similar. The treatment by these and other agencies of such subject inventions varies considerably, with DOD traditionally having taken the approach of:

1. Allowing title to the invention to be left with the inventing contractor (probably upon the premise that he was more likely to be interested and able to do something with it commercially than would the government or another party).
2. With the government retaining a royalty-free license right to utilize the invention for governmental purposes anywhere in the world. It is interesting to note that the DOD definition of "government" extends to federal, state, and local municipal governments.

NASA's policy has traditionally been to take title from the inventing contractor. It may be interesting to note that the NASA act passed in 1958 was alleged to have been based upon the AEC Act which also had taken title to inventions. The argument for the AEC doing so was based upon the World War II-era concerns for safety and secrecy. These parameters were not extant when the Space Act was passed by Congress without hearings and little opportunity for industry to object or offer counsel regarding the effect these clauses would have. More recently ERDA and many other agencies are following the "take-title" policy, though there may be some recognition that this doesn't always work to the highest public advantage. (The Thornton Bill, HR 6249, seems to take a more modern approach and leaves the opportunity in the developing contractor to take title, subject to certain governmental safeguards vis-a-vis rights to use.

Pitfalls

It might be wise to return for a moment to the definition of subject invention and point up some of the pitfalls that may reside in its seemingly innocuous wording. For example:

a. When is an invention "conceived"? If a contractor had developed elements A, B, C prior to a government contract and, under the contract, element E was generated, thus completing the invention defined as "A, B, C, D, E," what rights does the government get in elements A, B, C?
b. Consider the circumstance where the *conception* of an invention had been completed (and perhaps even patented) prior to the governmental contract. If the invention was first actually reduced to practice under the contract, the invention would become a "subject" invention (which in the case of NASA and ERDA would mean that the invention then belonged to the government)!
c. What constitutes *"first actual reduction to practice"*? This is also an area in which it is often difficult to find answers. Normally, an actual reduction to practice would be completed at such time as the invention was built and operated, in the environment in which it was designed to operate. (One case held that windshield wipers for an airplane constructed and mounted on an airplane in a wind tunnel with "rain" introduced did not constitute an actual reduction to practice, it being held necessary that the airplane had to actually fly into the wind and rain in open sky.) More recent cases have seemed to erode the strictness of this approach, but each question/invention must be resolved considering the specific facts and factors.
d. Another area of concern often touches upon what is meant by "in the course of or under" a contract. Be aware of the Mine Safety Appliance case (150 USPQ 453) which provided in the writer's opinion an unwarranted breadth of interpretation. Briefly, the facts in that case involved two inventors who had been working on private funding to develop hardware, i.e. a crash helmet for use by aviators. One of them, during the time the crash helmet work was going on, was also engaged in helping to perform a study contract for the Navy, the purpose of which was to utilize a centrifuge to study the effects of acceleration on the human body. In spite of a trial commissioner's recommendation, the court held that the government had royalty-free license rights in the crash helmet invention which thus was held to be "subject" under the contract, citing the "close umbilical connection" and "cheek-by-jowl relationship" of the study and the hardware.

If this sends shivers of concern through your corporate system, there may be some comfort in being forewarned that this is usually considered to be the bench-mark case though more recent cases have, in the writer's opinion, tended to narrow the breadth of its interpretation/application. In passing, it may be of interest to note that the DOD definition of subject invention covers an invention "which is or may be patentable under the patent laws of the United States of America or any foreign country." When one recognizes that many foreign patent laws do not provide for examination but allow patentability based merely on a registration basis, it can be seen that, almost literally, any invention would be required to be reported if it were merely different. DOD has, to its credit, administered this clause with reason and it has not to my knowledge presented any undue problems. NASA's clause, in addition to speaking in terms of subject inventions, also includes "Reportable Items" defined as "any invention, discovery, improvement or innovation of the contractor, whether or not the same is susceptible of protection under the United States patent laws . . . " Again, even minor variations or changes would fall within the NASA definition though, with some exceptions, the clause has usually not been an undue burden.

3. Procedures

All major agencies' contracts require that contractors establish and maintain active and effective procedures to assure that subject inventions are promptly identified and timely disclosed.

4. Forfeiture for Non-Disclosure

ASPR, NASA, and ERDA all have provisions which indicate that a contractor shall forfeit its entire right in an invention if he fails to report it to the government. There are provisions in some contracts which indicate that the forfeiture will not be affected if the contractor reports the invention within the time specified with a full disclosure setting forth facts and arguments as to why it believes the government has no rights in the disclosure. (This illustrates a situation which can take considerable time to resolve and if decisions must be made regarding commitments of funds, commitment of people, and guidance of their efforts to specific technological areas, such decisions must be made subject to the possibility of the "rug being yanked out from under" the determination.)

5. Witholding of Payment Clauses

Many agencies have provisions in their contracts which indicate that a contracting officer, if he deems such action warranted, may withhold payment until a reserve not exceeding $50,000 or 5% of the amount of the contract is accumulated, whichever is less, and he may continue to withhold this amount until a given invention which he believes is subject, has been submitted!

Who determines "subjectivity"? For the government, the first level of determination is the contracting officer and in most government contracts he is given the right of examination of records relating to inventions. A clause in ERDA's provisions issued July 13, 1977 reads as follows (emphasis supplied):

> "(h) Examination of Records Relating to Inventions.
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> (1) The Contracting Officer or his authorized representative, until the expiration of three years after final payment under this contract, shall have the right to examine any books (*including laboratory notebooks*) records, documents, and *other supporting data of the Contractor* which the Contracting Officer or his authorized representative *reasonably deemed pertinent* to the discovery or identification of subject inventions or to determine compliance with the requirements of this clause.
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> (2) The Contracting Officer or his authorized representative shall have the right to examine *all books (including laboratory notebooks)*, records, and documents of the Contractor *relating* to the conception, or first actual reduction to practice of inventions *in the same field of technology* as the work under this contract to determine whether any such inventions are subject inventions, *if* the Contractor refuses or fails to (i) establish the procedures of paragraph (e) (1) of this clause or (ii) maintain and follow such procedures, or (iii) correct or eliminate any material deficiency in the procedures within thirty days after the Contracting Officer notifies the Contractor of such a deficiency."

As you can see, this typical clause has a far-reaching effect which in fact gives the Contracting Officer a fishing license into areas that many contractors consider to be "sacred territory" or highly proprietary. One of the problems with this type of approach is that once the contractor has made a determination, the burden shifts and the contractor is considered guilty until he proves himself innocent, i.e. that an invention was *not*, in fact, subject.

BACKGROUND PATENTS

While definitions vary, a background patent is usually considered to be a patent which a contractor has obtained prior to his entering into a specific government contract, and may be further defined as a patent which is infringed by the practice of any specific method or item generated by the contractor under a contract. ERDA requires that a contractor agree "to grant to the government a royalty-free, nonexclusive license under any background patent for purposes of practicing a subject of this contract by or for the government in research, development, and demonstration work only." The contractor may not, however, be required to grant such a license if the contractor can demonstrate to the satisfaction of the government that (1) a competitive alternative to the subject matter covered by the background patent is commercially available or readily introducible from one or more other sources, or (2) the contractor or its licensees are supplying the subject matter covered by the background patent in sufficient quantity and at reasonable prices to satisfy market needs. While most DOD and NASA contracts have no standard provision for background patents, a sharp eye should be kept open. The application of case law may operate, even in the absence of a specific provision, to imply rights in the government in background inventions. For example, consider the AMP case, 156 USPQ 674 (1968) which is a bench-mark case in which a wire splicing tool was developed by AMP as a subject invention under a contract. After the contract was completed, AMP became aware of a dominating patent. It procured the patent from the owner. When the government later went out to others to have AMP's subject invention made, AMP objected, citing its after-acquired patent. The court held that the government had rights by implication in AMP's dominating and after-acquired patent. Obviously, application of this doctrine could constitute a real, and in many instances difficult to assess, problem. The AMP patent was not really a background patent by the usual definition, but it illustrates the extent to which some courts will go to render a decision which they regard as just.

COMPULSORY LICENSING

Both DOD and ERDA have clauses (NASA does not explicitly) which require an inventor-contractor to license others (assumedly including its competitors) in certain subject inventions. The DOD language in this area reads as follows (emphasis supplied):

> "With respect to each subject invention to which the Contractor retains principal or exclusive rights, the Contractor . . . agrees to grant to *responsible applicants*, upon request of the government, a license on terms that are *reasonable under the circumstances*; A. Unless the Contractor, his licensee, or his assignee, demonstrates to the government that effective steps have been taken within three (3) years after a patent issues on such invention to bring the invention to the point of practical application or that the invention has been made available for licensing royalty free or on terms that are reasonable under the circumstances, or can show cause why the principal or exclusive rights should be retained for a further period of time; or B. To the extent that the invention is required for public use by governmental regulations, *or* as may be *necessary to fulfill public health, welfare or safety needs*, or other public purposes stipulated in this contract."

These areas of background patents and compulsory licensing have stirred considerable controversy between government and industry, and in fact among and between various segments of industry and the Patent Bar itself. The rationale of the argument is beyond the scope of this paper.

WAIVERS

The reader should be aware that some agencies have provisions for granting waivers under subject inventions, i.e. the waiver is a waiver of title, though the government still retains rights for its own use, and may retain compulsory licensing rights as well. There may be instances where the time and effort involved in preparing formal petitions, supported by documents and arguments, to obtain a waiver may be worth the expense and the time it takes to obtain the answer to the petition.

SUBCONTRACTORS

Finally, what about subcontractors, i.e. those companies with whom you enter relationships to assist you in performing a government contract? By stipulation, a contractor is prevented from acquiring rights in subcontractor's inventions, but it must notify the government of each and every subcontract it grants which contains a patent rights clause. And while an active "policing" of subcontractors is not required, and would probably not be practical or enforceable, clauses such as the following used by ERDA should be kept in mind:

> "The Contractor shall identify all subject inventions of the subcontractor of which it acquires knowledge in the performance of this contract and shall notify the patent counsel (with notification by patent counsel to the Contracting Officer) promptly upon the identification of the inventions."

NASA has a similar clause, and DOD's clause reads

> "The Contractor shall exert its best effort to identify all subject inventions of the subcontractor and shall notify the Government Contracting Officer promptly upon the identification of such inventions."

In view of the various considerations involved, providing a "balance" in recognizing the government's involvement/funding while retaining the power of incentives to invent and bring to market inventions, is an important if not crucial area. Whether or not we may be succeeding is left to the reader.