PART ONE
HARMONIZATION-RELATED ISSUES

I. FIRST-TO-FILE

A. Introduction and Overview

In the United States, when more than one patent application is filed claiming the same invention, the patent will be awarded to the applicant who establishes the earliest acts of invention in the United States and who has not thereafter suppressed, abandoned or concealed the invention ("first-to-invent" system).[1] Applicants are permitted to establish a date of invention that is prior to the filing date in an interference proceeding conducted in the U.S. Patent and Trademark Office (USPTO). In contrast, in nearly every other country which provides patent protection, priority of invention is established by the earliest effective filing date of a patent application disclosing and claiming the invention ("first-to-file").[2]

A long-standing issue in discussions on patent law reform has been whether the United States should change its patent system to conform with the manner of awarding priority of invention in other countries.[3] This question is again a dominant issue in discussions regarding patent law reform due to the negotiations designed to achieve global harmonization of the intellectual property laws. Specifically, in the context of the multilateral patent law harmonization treaty negotiations conducted under the auspices of the World Intellectual Property Organization, other nations have made it clear that there will be no treaty unless a first-to-file method for determining priority of invention is included.[4]

The principal issue thus presented is whether the United States should change from a first-to-invent procedure to a first-to-file procedure (1) as a necessary part of a global harmonization package which provides, on the whole, advantages to United States inventors, (2) without regard to a harmonization treaty or (3) not at all. If a change to a first-to-file system is the ultimate decision, questions ancillary to this decision must be addressed; specifically, whether or not the contemplated change to a first-to-file procedure should be accompanied by features such as a "provisional application" procedure, a grace period and a "prior user rights" defense to patent infringement.

B. Summary of the Public Comments

The issue of whether the United States should adopt a first-to-file system provoked a substantial response from the public, as measured through the response to the invitation of the Advisory Commission for public comment.[5] The principal objections raised to first-to-file by members of the public included:

- small entities might be placed at a disadvantage in the "race to the Patent Office" because of limited resources to prepare and file patent applications;
- a first-to-file system might tend to foster premature and sketchy disclosures in hastily-filed patent applications;
- the possibility of theft of an invention from the true inventor could be increased in a first-to-file system;
- the opportunity to explore commercialization possibilities prior to filing would be reduced because of the importance of early filing; and
- the USPTO could be burdened with an increased volume of patent applications filed for defensive purposes.

Those members of the public responding in favor of adopting a first-to-file system raised the following points:

- most of U.S. industry is acting now on a first-to-file basis, even in the United States, to avoid forfeiture of patent rights abroad, and the first-to-invent system could be hurting the competitiveness of U.S. industry;
- a U.S. first-to-file system would encourage early filing worldwide, so that patent rights are not forfeited, and would promote the early public disclosure of inventions;
- an agreement by the United States to a harmonization treaty requiring a change to first-to-file could bring

dramatic improvements in the patent systems of foreign countries for U.S. applicants seeking patents abroad;

- a first-to-file system could greatly decrease the complexity, length and expense associated with current USPTO interference procedures; and
- the first-to-file rule would provide a definite, readily determinable and legally-fixed date of priority of invention, would eliminate uncertainties associated with interferences and would provide greater reliability for U.S. patents.

Some respondents favored adopting a first-to-file system unilaterally, i.e., without regard to harmonization negotiations. Others, however, proposed adopting a first-to-file system only as a part of a global harmonization package which provides advantages to U.S. inventors who seek patent protection abroad.

Many proponents of the first-to-file system approach suggested that certain features accompany the change to preserve what are perceived to be beneficial elements of the existing first-to-invent system. These included a procedure to allow the filing of a preliminary or "provisional" application at low cost, which would facilitate early filing and encourage entry into the patent system by small entities. Many others recommended inclusion of an international grace period to protect an inventor from his or her pre-filing public disclosure of the invention. In addition, several responses addressed the issue of "prior user rights" in a first-to-file system. These issues, particularly the question of prior user rights, were considered extensively by the Commission members during their deliberations.

C. *Recommendation and Discussion*

Recommendation I-A

Change the U.S. patent system to award patents to the first party to file a patent application, as opposed to the first party to invent, as a necessary part of a global harmonization package which provides, on the whole, advantages to U.S. inventors, subject to the following conditions:

(i) adoption of a provisional patent application procedure to facilitate early filing at reduced cost, allowing the inventor to claim a right of priority for a later-filed complete application;

(ii) provision of a grace period during which public disclosure of an invention by an inventor would not affect the patentability of that invention if claimed in an application filed by that inventor within 12 months of the disclosure; and

(iii) establishment of a personal right for a third party who uses or makes substantial preparation for use of an invention in good faith, before the filing date of an application on which a patent is granted to another, to continue that use under certain conditions ("prior user right").

---

1. Discussion

From a purely statistical viewpoint there would seem to be little difference in result between a first-to-invent patent system and a first-to-file patent system. More than 99.9% of the U.S. patent applications now being filed raise no dispute as to the identity of the first inventor. Even when such disputes arise, the inventor who filed first ("senior party") is procedurally favored in the highly complex interference proceeding that follows—the senior party prevails in a significant majority of such interferences. The actual effect of a switch to first-to-file system of priority, thus, is likely to have little or no actual significance in terms of inventors losing priority of invention to other inventors, based upon these statistical findings.

However, patents vary widely in terms of commercial importance. The public comments, as well as the experience of many Commission members, suggest that applications involved in interferences are almost always drawn to those inventions that are very important commercially. Because such inventions are often developed to answer needs in very competitive markets, the high stakes in such situations drive parties to engage in hard-fought priority contests.

Disposition of this issue in favor of the simpler first-to-file approach was not made, therefore, on the basis of statistical evidence alone. Rather, the recommendations of the Commission on this point reflect a careful consideration of several issues, and have been made while being mindful of the concerns expressed by various users of the patent system. For example, many have questioned whether independent inventors, small businesses and university inventors would be able to adjust as well as others to a first-to-file environment. If not, a unique and creative U.S. research and development resource that is admired and envied throughout the world for its leadership in the advancement of science and technology could be disadvantaged by a change to a first-to-file system. The Commission recognizes the competing interests and the concerns expressed by these different sectors of the patent user community.

The Commission's fundamental belief, regardless of which system is used in the United States to determine priority of invention, is that only bona fide, original inventors (or their representatives or assignees) should be able to file for and receive patents. Protection for bona fide inventors against theft is a feature of all first-to-file patent systems throughout the world and would remain a feature of any revised U.S. system. In the first-to-file system proposed by the Commission, inventors in the United States would be able to retain their ability to prove derivation or "theft" of an invention in situations where a patent application is impfoperly filed by or on behalf of a non-inventor.

The Commission feels that their recommendation to convert the U.S. system to one that measures priority based upon the first-to-file, as a whole, represents a favorable change for U.S. applicants, both large and small, in terms of ease of filing, clarification of rights, and, importantly, international competitiveness. In formulating the package, the Advisory Commission has considered the concerns over access to the patent system by small entities, university researchers and independent inventors, as well as the needs of modern businesses engaged in international competition. The benefits that can stem from international patent law harmonization, made possible through U.S. acceptance of the first-to-file concept, only serve to accentuate the potential benefits of adoption of the proposed package.

2. *Elements of the Proposed U.S. First-to-File System*

The Advisory Commission proposal consists of a recommendation to change to a first-to-file system having three basic elements; namely,

- a provisional application filing system to facilitate early and simplified patent filings,
- an international grace period to avoid patent-defeating prior art authored or created by the patent applicant, and
- a limited prior user right.

Furthermore, the recommendation to shift to the first-to-file system is conditioned upon obtaining a favorable harmonization "package" which, on the whole, provides a net positive benefit to U.S. inventors around the world.

Each of the elements has been thoroughly considered in the context of the necessity of the element, and the benefits and detriments of each element, from the perspective of various sectors of the patent user community. Because this proposal reflects a compromise of competing concerns, a discussion of each of the elements which explains the element, and which reflects those concerns is provided below.

(a) Provisional Application

The Advisory Commission believes that a provisional application procedure should be adopted as an essential part of a domestic first-to-file patent system. Such a procedure would permit patent applicants to obtain early filing dates with a minimum of formal application requirements, and, importantly, at a reduced cost. Several elements of the provisional application as contemplated by the Advisory Commission bear mention.[6]

First, inventors should be able to file a provisional application with a minimum of formal requirements and at a low cost. Specifically, while the provisional application would have to satisfy the description and enablement requirements of 35 U.S.C. § 112, inventors would not have to include claims to define the invention in order to receive a filing date for the application.[7] Furthermore,

to facilitate early filing, requirements for formal oath or declaration and for inventorship nomination would be waived for the provisional application.[8] Satisfaction of these formalities of the application would not be required until the inventor files a complete patent application.

In operation, the patent applicant would have twelve months after filing the first provisional application to file a complete application meeting all regular application requirements. This could be accomplished by completing the missing elements of the provisional application, or by simply converting a previously filed provisional application meeting all the regular application requirements into a complete application by paying the regular filing fee. One or more provisional applications could be consolidated into one complete application. Once the complete application had been filed, any earlier provisional applications would be abandoned.

Applicants using the provisional application scheme would be entitled to claim priority for subject matter claimed in the complete application back to the date of filing of the provisional application, provided the provisional application includes a sufficient "description" of the invention, and sufficiently "enables" the practice of the invention claimed in the later complete application.[9] The provisional application could serve also as a priority document for foreign applications filed within one year, as authorized by the Paris Convention.[10] The filing date of the complete application would serve as the basis of the domestic patent term, where the patent term is a fixed period measured from the filing date, as recommended later in this report.

There are several reasons for recommending provisional applications as part of any change to a first-to-file procedure.

First, the ability of parties to file early and easily is essential in a first-to-file system. The provisional application would provide a simple and relatively inexpensive method to establish an early priority date for the subject matter which it discloses. This feature is of enormous potential benefit to inventors of limited means, because it would give them a full year to determine whether to proceed with the expense of filing a formal, complete application to the invention. In addition, early priority dates in the United States could be used abroad both offensively (to obtain patents) and defensively (to block patents to others), since most foreign countries would give U.S. patents claiming priority to a provisional application a patent-defeating prior art effect as of the filing date of the provisional application.

Provisional applications would also serve the useful purpose of placing U.S. patent applicants on equal footing with their foreign counterparts who claim priority under the Paris Convention. The Paris Convention provides that the Convention priority year cannot be included in the patent term.[11] Hence, where the patent term is measured from the filing date, the starting point must be a domestic filing date. Without a provisional application system, a domestic and a foreign applicant could file a patent application in their respective countries on the same date, yet the foreign applicant's corresponding patent term in this country could expire a full year after that of the domestic applicant, because the foreign applicant can defer filing in the U.S. during the one-year priority period. To address this inequality, Japan and the European countries provide systems to ensure that domestic applicants have a one-year "internal priority" period to parallel the Paris Convention priority year of foreign applicants. The provisional application system recommended would provide this "equalizing" effect to U.S. patent applicants, by affording them a similar one-year "internal priority" period that would not be counted in the term of a U.S. patent.[12]

While a provisional application system is recommended as part of a first to file-system, some have argued that it is desirable to add such a system to the existing U.S. first-to-invent system. The provisional application would provide a simple method to establish an invention date, by serving as evidence of a constructive reduction to practice of an invention disclosed therein. In addition, even under our first-to-invent system, U.S. applicants wishing to obtain patent rights abroad must establish a priority date as early as possible to rely upon when filing in foreign countries. Thus, this element merits consideration outside of the current proposal of the Commission.

(b) Grace Period

Long and firmly established traditions in the United States scientific community encourage open and free communication through early publication and dissemination of the results of scientific research. Yet, prior public disclosure of the substance of an invention serves as the most fundamental bar to the ability of an inventor to obtain patent protection. The U.S. patent laws provide a compromise to these two opposing principles through a grace period—an explicit right of an inventor to prevent the patent defeating effect of an earlier publication or public disclosure of the invention for a one-year period following the disclosure.[13] If an inventor publishes details of the invention, and then later decides to file a patent application, that publication will not be a bar to obtaining a patent in the United States, so long as the patent application is filed within one year of the publication. If a third party publishes the same invention within one year before the filing date, the publication will not be a bar to obtaining a patent in the U.S. so long as the inventor provides an adequate affidavit establishing that the date of invention was prior to the disclosure.[14] The grace period is, therefore, of critical importance to the scientific community in facilitating early dissemination of research results, while preserving the patenting opportunity of the inventor for a reasonable period.

The grace period also is essential to protect entities which have limited financial resources for speculative patent application filing and prosecution. Such entities must have some time after a publication or other public disclosure to validate the commercial viability of an innovation, often by finding a prospective licensee as a precondition to making any significant financial commitment toward obtaining patent protection for that innovation. The U.S. grace period helps to ensure equal access for such entities to the benefits of U.S. patent protection, and protects against inadvertent loss of U.S. patent rights during the initial period of testing or promotional activities.

The protections offered by the U.S. grace period, however, are limited. Specifically, the U.S. grace period protects the inventor only against pre-filing publication or other public disclosure with respect to U.S. patent rights. The patent laws of most other countries do not provide inventors with a grace period. This means that pre-filing publication or public disclosure of the invention will defeat the inventor's attempt to obtain foreign patent protection for the disclosed invention. Thus, foreign patent offices will use the inventor's earlier publication as a basis for denial of the patent grant.[15]

The absence of parallel protection for the inventor who has published or otherwise publicly disclosed the invention abroad has caused many United States inventors to unnecessarily or inadvertently forfeit their patent rights in much of the rest of the world. Because of this, U.S. negotiators in the WIPO patent law harmonization exercise have struggled to incorporate an international grace period into the draft harmonization treaty. The grace period under consideration in the current text of the draft treaty provides a limited grace period which extends only to acts by the inventor, or by another party who obtained the disclosed information from the inventor.[16] Hence, persons who publish their inventions prior to the time a patent application is filed would be protected. Most significantly, the treaty would mandate that all foreign patent systems recognize an international grace period so that such "self-created" prior art would not destroy patentability in any country.

The prospect of obtaining the concession on an international grace period from other countries is a significant one. The Advisory Commission considers a grace period to be an essential element of any first-to-file system, and its current absence in other systems to be a significant detriment to U.S. inventors. However, other countries participating in the harmonization negotiations insist that the harmonization treaty mandate a first-to-file system for priority. Thus, the harmonization treaty could provide a significant direct benefit for all U.S. inventors.

Therefore, if the United States adopts the first-to-file system, this Commission recommends that the United States retain a grace period during which public disclosure of an invention by the inventor would not affect the patentability of that invention if claimed in an application filed in any country offering reciprocal benefits within 12 months of the disclosure. If the first-to-invent system is

retained, the current grace period under 35 U.S.C. § 102(b) is preferred.

The Advisory Commission is cognizant of two potential problems that may arise in a first-to-file system that extends a grace period only to the inventor's publications (a so-called "personal" grace period). These problems are not fatal, as appropriate measures can be implemented to prevent or control their effects.

The first involves a situation where a party other than the inventor learns of an invention exposed through a grace period publication and then files a patent application on that invention before the original inventor. Such an action would be inconsistent with existing requirements that one affirm that he is in fact the inventor of the claimed subject matter, a requirement that should continue even in a first-to-file based priority system. Retention of the requirement for an affirmation of inventorship by the true inventor, and provision of a forum to decide derivation issues, whether it is the USPTO in an interference-like proceeding, or in the courts, should suffice to address this situation.[17]

The second problem ("spoiling") occurs where someone other than the patent applicant learns of the subject matter of the invention and prior to the filing of the patent application publishes the information. This would have a patent defeating effect on the true inventor's patent application. To resolve this potential problem, the Commission believes it would be appropriate for the USPTO to "presume" that the second publication of the same invention was derived from the first, and then on this presumption, grant the patent application. The question of whether the later publication was in fact actually derived from the inventor's grace period publication would be resolved only in the event that a dispute over the validity of the patent subsequently arose, and this resolution would occur in a forum more appropriately suited to assess inter partes disputes, namely, the Federal courts. This may look at first like a "first-to-publish" system. But in the balancing of equities, the public would benefit from having earlier access to the information in the publication. In any event, the United States must remain free to establish whatever means may be appropriate under our legal system to curb potential abuse of inventor rights.

(c) Prior User Rights

The issue of prior user rights presented difficult questions that the Commission had to address pursuant to its deliberations on the first-to-file issue. Under the appropriate circumstances, a prior user right will enable an earlier user of a patented invention to raise a defense to a claim of patent infringement. To establish the prior user right, the prior user must show that they independently developed the invention and began use or substantial preparation for use of that invention prior to the filing by the patent owner. If the extent of pre-filing activity was sufficient, the prior user will be permitted to continue such use despite the presence of the patent, subject to specific limitations on the extent of that use.

Prior user rights provisions are common in many first-to-file patent systems.[18] Such rights commonly provide a limited defense against an infringement claim where the prior user defendant can establish commercial use, or substantial preparation toward such use, of the patented invention in that country prior to the effective filing date of the patent.[19] Prior user rights are also authorized in Article 20 of the Basic Proposal of the WIPO Patent Harmonization Treaty draft.[20]

Prior user rights, as such, do not exist in U.S. law. The fundamental concept, however, is partially filled by 35 U.S.C. § 102(g), which provides that an applicant will be entitled to a patent in the United States unless "before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it."[21] In operation, this enables a prior inventor who has not abandoned, suppressed or concealed the invention to invalidate the later filed patent of another, thereby escaping liability for infringement. In a first-to-file system, section 102(g) would be inapplicable, as priority in rights to a patent would be keyed upon filing of the patent application, rather than priority in inventorship. However, prior user rights, as contemplated by the Commission and as in place in foreign systems, differ in several respects from operation of 35 U.S.C. § 102(g). One significant difference is that the prior user right, as it exists in foreign systems, is a personal defense and does not have a patent defeating effect, as is the case under existing U.S. law.

Prior user rights are intended to provide a degree of balance in a first-to-file system by providing some protection to an earlier independent inventor.[22] The basic difficulty in providing a prior user right is crafting the right so that it does not undercut the value of the exclusive rights obtained through patent grant, or the desirable goal of early disclosure of inventions stimulated by a first-to-file system.

Advocates and opponents of prior user rights have identified several reasons to either include or preclude such rights in a U.S. first-to-file based patent system. The Advisory Commission has considered the merits of these arguments at length. While not unanimous in all respects, the consensus of the members of the Advisory Commission is to support the establishment of a limited prior user right as part of a U.S. first-to-file patent system. It is important, however, to recognize the reasons that were offered in support of, or against, prior user rights as these reasons are grounded upon specific concerns of the different sectors of the U.S. patent user community that would be affected by the implementation of such a system in the United States.

Advocates of prior user rights advance several arguments in support of a U.S. prior user right. They point out that prior user rights are designed to benefit those who have independently developed, in the country having the right, an invention in good faith before the effective filing date of a patent application on that invention. Hence, they note, almost every industrialized country protects its national industry by including a prior user right in its patent system. Without a prior user right in the United States, foreign U.S. patent holders could "close down" U.S. prior users, while U.S. owners of foreign patents would remain unable to exercise those patents against prior users abroad. Supporters also argue that without prior user rights, inventors may be encouraged to flood the USPTO with patent applications on numerous minor improvements during product development[23], and that prior user rights cases are extremely rare in countries having the right.[24]

Many proponents of prior user rights also believe there is a need to protect secret uses from the risk of later independent invention and patenting by others. They argue that trade secret use of an innovation is sometimes the best, or only, way to realize the benefit of the investment that gave rise to it. In such cases, it is argued, trade secret protection must be given weight in order to protect U.S. investment. Absent any protection for the secret user, valuable technology may be lost because of the need to disclose it to insure its continued availability for use.[25] Supporters of prior user rights, based on activity that was intentionally protected as a trade secret, argue that inventors can secretly commercialize only a limited set of inventions, mainly certain process or apparatus inventions that are not disclosed by their products. They also maintain that the incentive to obtain patent protection on truly important technology, outweighs the incentive to maintain secrecy, because relying on a prior user right, for example, would not give an inventor any protection abroad.

Those who oppose the right point out the inconsistency of the prior user right, at least insofar as it protects secret use, with the disclosure inducement theory that underlies our patent system. They argue that protection of secret prior use against a granted patent exalts secrecy over public disclosure. Some opponents of prior user rights believe it is not fair to reward an inventor who does not pursue patent protection, particularly those inventors who intentionally conceal an invention in commercial use. Others argue that prior user rights could increase the need for record-keeping, the potential for litigation, and other burdens that characterize current interference practice. Opponents of prior user rights are also concerned that the prior user rights threaten the exclusivity of a patent right and jeopardizes exclusive licensing and sale opportunities, particularly if more than one prior user exists.

The arguments on both sides of the issue are valid and received serious and careful consideration. A prior user right too easily achieved and too broad in scope might do grave damage to the United States patent system and severely impact the incentive to invest in research and development. On the other hand, elimination of the right altogether may make a first-to-file system in this country too harsh, and seriously injure U.S. manufacturing activity.

The Commission believes that providing a limited prior user right to protect the

legitimate interests of industry in the United States can be achieved without unduly detracting from the exclusivity and marketability of the patent grant.

The prior user right should exist as a personal defense to an infringement claim, and should be based upon the following elements:

(i) Time and Place

The right should be based only upon activity in the United States prior to the earliest filing date to which the relevant claim or claims of the patent is or are entitled, including a foreign priority date under 35 U.S.C. § 119.

(ii) Independent Creation

The activity must have been done in good faith and without derivation from the patentee, and it must have been based upon the independent development of the person claiming prior use, or of persons who had an obligation at the time of such development to assign or license patent rights to or otherwise share such rights with such person.

The key to this concept of independent creation is that the prior user should not be able to take advantage of the patentee's pre-filing disclosures to create the right which will subsequently be used to avoid liability under the later-issued patent.

(iii) Extent of Prior Activity

The prior user right must be based upon either actual use in commerce of the patented invention, or upon substantial material preparations for such commercial use. In each case it is essential that the subject matter of the patent be the subject matter of the pre-filing use by the prior user. Preparations for commercial use that are substantial and material should give rise to the right, provided they represent activity toward actual commercialization as opposed to mere plans or preliminary efforts toward subsequent activity.

At a minimum, the prior user must have completed an actual reduction to practice of the invention for which the right is claimed, prior to the patentee's earliest filing date, to claim the prior user right defense.

The following factors, among others, should be employed to determine whether substantial preparation for use has been proven by a potential prior user:

(a) the costs incurred by the prior user as of the filing date of the patent, as well as the proportion of those costs to the total costs for commercialization of the subject matter of the prior user right;

(b) the amount of time required for the prior user to complete the preparation for commercial use after the filing date, and the proportion of that time in relation to the total time necessary to fully prepare for the prior use;

(c) the complexity of preparation for practicing the claimed prior use; and

(d) the diligence of the prior user in preparations for the prior use.

The burden of establishing the requisite degree of sufficient prior use by documentary and other objective evidence should be on the party asserting the right.

(iv) Scope of the Right

The right created by prior use or preparation should be limited to continuation of the particular activity which gives rise to the right. In the case of processes, this would limit the use to a continuation of use of an identified process but would not limit the products produced or affected by the process. In the case of products, the right would extend to future editions of the product only if they are not materially different from the version of the product which gave rise to the right. For example, improvements to the prior use should be permitted to the extent they do not fall within the scope of other claims in the patent.

The prior user should be able to reasonably expand the prior use to meet reasonable market demands within the United States, rather than being restricted to only the pre-filing volume of use. In addition, the prior user should not be restricted geographically within the borders of the United States, as entities commonly conduct development and commercialization activities at different sites throughout the United States. The prior user right will not authorize use outside the United States.

(v) Personal Nature of the Right

Prior user rights should be personal in nature, and should not be transferable, except with that part of the business which exploits

the right. This is essential to preserve the personal nature of the prior user right, and to prevent the personal right from being extended to resemble a compulsory license-like authority to avoid liability for patent infringement that can be transferred or licensed to others.

(vi) Legal or Equitable Nature of the Right

Prior user rights should be an equitable defense to a charge of patent infringement, and at a minimum should permit continuation of use on the scale of the commercial use undertaken, or for which sufficient preparations were made, before the patentee's earliest filing date. Where the totality of circumstances make it appropriate, a court should have the authority to assess appropriate and reasonable royalties in favor of the patentee, or to expand the right to assure that justice is done.

(vii) Other Elements Not Recommended for Inclusion in the Prior User Right

The Commission, pursuant to its deliberations on the definition of the prior user right, contemplated several other options offered for inclusion in the prior user right proposal. These options would address real concerns expressed during the deliberative process of the Commission. However, the consensus opinion of the Commission is that it would not be appropriate to include these options in the prior user right proposal. For completeness of the record, these options are presented below.

(a) Special Treatment of Non-Manufacturing Entities

One proposal would provide special treatment for non-manufacturing entities in relation to the exercise of prior user rights.

First, it was proposed that non-manufacturing entities be excluded from application of prior user rights, so that the prior user right defense would not be available against a patent held by such an entity. This, in essence, would differentiate operation of the prior user right based upon the identity of the patent holder. The proposal was intended to address concerns expressed by the university community, in particular, that prior user rights would be of little value to universities and small entities because these groups do not commercialize their inventions. Indeed, because such entities rely on licensing of patent rights to realize the value of the patent grant, such rights could disproportionately diminish the value of patent rights for non-manufacturing entities.

An alternative to this proposal would create an administrative process to be implemented through the USPTO that would determine the validity of prior use claims and then use appropriate means to establish fair compensation to the patentee for loss of economic value of the patent. In this alternative, prior users would be required to "register" their claims of prior use with the administrative body and pay a fee for administrative costs; otherwise, they would forfeit the right to raise the prior use defense in subsequent litigation involving the patent.

The Commission ultimately rejected these proposals after thorough consideration. The proposed exclusion of non-manufacturing entities was viewed as overbroad in its scope and seen as possibly chilling industry/university collaboration. Even though prior user rights could not be transferred once created, Government agencies and universities could exercise prior user rights based upon developmental activities that were undertaken by others through contract. As to the proposed administrative process, the Commission viewed this as impractical and unfairly favorable to patent owners. For example, under the system, competitors would be required to alert patent owners of potential infringements and to thereby subject themselves to patent infringement suits. This would require a voluntary admission of liability for infringement, and if no prior user right is established, the entity would be unfairly prejudiced in a subsequent judicial proceeding. Finally, as USPTO determinations are subject to judicial review, this proposal would not remove the prior user rights defense issue from litigation.

(b) Bar Availability of the Prior user Right Based Upon Intentionally Concealed Prior Use

Another proposal offered was to preclude availability of the prior user right when the prior user intentionally concealed the prior use. The rationale for this proposal was that it would be unfair to reward an inventor who intentionally opts for secrecy rather than seeking protection through the patent system. Concerns were expressed that the prior user right would inappropriately elevate secret use to the stature of protected disclosed use as is

the case with patent rights, and as such, a restriction such as this would be necessary to make prior user rights more compatible with the disclosure-inducement theory of the patent system.

As proposed, this limitation would not exclude secret preparations absent intent to conceal the invention in commercial use, since most such preparations would be unannounced or private by virtue of their character (e.g., behind the factory gates). However, where an earlier inventor intentionally conceals, or intends to conceal, the invention in commercial use, prior user rights would not be available under their proposal.

Of course, the prior activity on which prior user rights would be based would by definition be secret activity because prior public disclosure by the prior user, whether through publication or public use, would have a patent-defeating prior art effect on a subsequently filed patent application. This is because any earlier public disclosure of an invention *by someone other than the inventor* would bar the patent grant to the later patent applicant. The grace period, personal to the applicant, would not enable the patent applicant to escape the patent defeating effect of prior art or public disclosure of another.

A majority of the Commission rejected this limitation, maintaining that such a limitation could create, in effect, a "compulsory patenting" system, forcing the disclosure of trade secrets. Trade secrets are often the only practical form of protection for certain inventions.[26] For example, it is often impractical to file for patents to minor process improvements, and difficult to enforce such patents abroad. Furthermore, in substance, the distinction between intentionally concealed secret use versus unannounced secret use is nonexistent. In both cases, the effect is that the information is not generally known to the public, cannot be used by others, and will not serve to preclude the grant of patent rights by another. Also, no other country having prior user rights imposes such a limitation. Finally, this limitation would require proving intent with regard to development activities. This will not only prove to be difficult, but will impose significant burdens through additional litigation costs and delays.[27]

(c) Legal Rather than Equitable Prior User Right

A third proposal was to craft the prior user right as a legal defense, rather than as an equitable defense. Doing so would make the prior user right an absolute defense to infringement, once the elements of the right were proven by a sufficient showing of the prior user. As a legal defense, the court would retain limited discretion to set the conditions of exercising the right.

Some of the reasons offered in support of a legal prior user right focus on the desirability of simplifying the process of defining the prior user right. For example, giving the court the authority to assign royalties may create unpredictability and unnecessarily complicate the prior user right. In addition, rigidly enforced prerequisites to establishing the prior user right, including the requirements of independent innovation and actual reduction to practice, will ensure that the right is rarely invoked, and if invoked, sustained only where truly merited.

Other reasons cited were the potential for creation of anomalous situations between U.S. and foreign markets. For example, facing the possibility of paying royalties only in the domestic market, domestic manufacturers may build plants overseas where valid prior users do not face the threat of being forced to pay compensation to patentees who file for and obtain their rights after the manufacturer has begun substantial use of the innovation. Also, no compensation is currently available abroad for U.S. owners of foreign patents by foreign prior users. In the U.S., however, prior users could be forced to pay compensation to owners of U.S. patents, yet nearly 50% of such owners are foreign.

The majority of the Commission, however, believes that the prior user right should be equitable in nature, giving the courts power to assess royalties as well as to expand the prior user right, to ensure that justice is done. The majority of members believes that, as with intervening rights in reissue situations, courts should have broad equitable powers with respect to prior user rights, to make decisions that are situation specific, balancing the right of the patent holder with fairness to the prior user.

(viii) Dissent Position

One Commission member has voiced a strong dissension on Recommendation I-A (iii). He believes that the recommendation would undermine the value of patent rights to the non-manufacturing sector, exalts secrecy over public disclosure, increases the economic burden of enforcing one's patent rights, and reduces the incentive for licensing and investment.

3. Considerations in Formulating the Proposed Package

(a) World Practice

The current first-to-invent system may actually be harming the competitiveness of U.S. interests by not sufficiently encouraging U.S. inventors to file promptly. Except for the United States, Jordan and the Philippines, all other countries having patent systems use the first-to-file rule in awarding priority between competing patent applications. Even when an inventor who did not file first is able to prevail in an interference contest and obtain U.S. patent rights, that inventor will most likely lose such patent rights worldwide to those filing first, either here or abroad.

For many users of the U.S. patent system, filing practices would be unchanged by adoption of a first-to-file procedure. U.S. inventors with global commercial interests must behave now as though the U.S. system was first-to-file to preserve their rights abroad. Parties who do not adopt this approach commonly forfeit their rights abroad through pre-filing disclosures. Furthermore, foreign entities, which account for slightly less than half of all U.S. patents, are, in fact, already in a first-to-file mode due to practices in their home countries.

It is also useful to consider that Canada successfully replaced its first-to-invent system with a first-to-file system in legislation that took effect in 1989, and legislation to introduce a first-to-file system is currently pending in the Philippines. Canadian government officials have noted that they did not experience any of the negative consequences that some predicted would follow the adoption of a first-to-file system.

b. Premature Filings

A first-to-file system will encourage early filing of patent applications in the United States because delays in patent application drafting and filing risks preemptive filing by others in almost every other country in the world. Rather than being detrimental, early filing of patent applications would benefit the public. Together with early publication of patent applications, a first-to-file system would accelerate the innovation process by promoting early disclosure of inventive activity, timely dissemination of patent information, and avoidance of unnecessary research.

One concern that has been expressed is that better written, more thorough patent specifications are a significant benefit of the first-to-invent system, and that this benefit would be lost in a first-to-file patent system. The theory is that a patent applicant in a first-to-invent system has more time to develop and refine the invention prior to filing, as well as more time to prepare the application. This theory, however, is flawed, given the practical realities of requirements for rapid filing in order to avoid loss of patent rights, both domestically and overseas.

Furthermore, this concern can be addressed fully by implementation of a provisional application system, which will enable inventors to file early, preserve their right of priority to the invention, and then enjoy a full year to complete the requisites of a complete application. In fact, a system which provides this one-year period after establishment of priority should make it easier, rather than more difficult, to provide thorough and complete patent applications prior to the examination of those applications. Finally, the requirements for full written description and enablement of the claimed invention will continue to apply in the same substantive manner in any U.S. first-to-file system.

(c) Record Keeping and Diligence

Non-commercially oriented scientific research entities have argued that they would suffer a disadvantage from loss of equal and assured access to the patent system if a first-to-file system is adopted in the United States, even if a provisional application procedure is provided. Under a first-to-file system, the argument continues that academic researchers

would be likely to use journal articles as the basis for provisional applications. The content of such articles is often governed by the editorial policy of a journal, and as such, journal articles are typically cast in a very conservative tone. This is in contrast to the current practice, where the academic inventor, with thorough records and diligence, can establish priority of invention not simply on the very sparse content of a scientific publication but on underlying experimental evidence which potentially may be of a far greater scope, evidence of invention which under the proposed first-to-file system would not be relevant for purposes of priority of invention.

However, the public comments and a judicial holding involving a university inventor suggest that inventors who are unfamiliar with interference practice are relying upon misperceptions about the legal requirements for an adequate "conception" of an invention.[28] In order to satisfactorily prove a conception, the documentation of conception must be deemed "complete" (i.e., it must include operable means), conception must be independently corroborated, and, most significantly, it must be coupled with continuous activity ("diligence") toward reducing an invention to practice. It may be unrealistic to assume that researchers could more easily learn the intricate requirements of current interference practice than how to augment a journal article for purposes of filing a broader-oriented provisional application.

Furthermore, the first-to-file system would greatly reduce the need for extensive, time-consuming and detailed record keeping. This in turn will provide much greater certainty in rights than exists under the present system. For example, the number of patent applications that actually become involved in a priority of inventorship contest is only a fraction of one percent. Yet, to protect against the remote possibility of such a contest occurring, inventors must keep detailed records on all inventive activity. This requires significant time and expense commitments. Moreover, inventors unfamiliar with the patenting process, especially small concerns who do not have the resources of their larger and more experienced competitors, are disadvantaged in that they are not familiar with the type of records that will be effective in proving prior inventorship. This leads to extensive efforts of such inventors to document their dates of conception, and subsequent frustration when these inventors discover the very difficult and highly technical legal requirements for establishing priority of invention under existing interference practice. Thus, much record keeping today is not only burdensome, but futile, as it engenders a false sense of security for many patent applicants who have not had actual experience in an interference.

(d) Certainty

The first-to-file system including a provisional application procedure would result in greater reliability of U.S. patents. This system will substitute a fair, simple and inexpensive means by which priority of inventorship would be determined without the need for the delays, complexity and expense of interference proceedings. Further, it would reduce the time and expense of establishing an inventor's right of priority, both domestically and world wide, as the patent application filing date is the best way of establishing this priority, worldwide, and without the uncertainties posed by the U.S. interference practice. This proposal represents a substantial step toward the highly desirable objective of a definite, readily determinable and legally fixed date of priority of invention, available to all inventors irrespective of their means. Thus, uncertainty would be replaced by certainty.

(e) Harmonization

Acceptance of a first-to-file system would enable the United States to obtain needed improvements in the patent systems of foreign countries through conclusion of a favorable patent law harmonization treaty. For example, as discussed above, most foreign countries do not provide a grace period. Hence, publication or other public disclosure by an inventor before filing can lead to loss of patent rights abroad. A patent law harmonization treaty would require countries to provide an international grace period to protect inventors against their own disclosures prior to filing for a patent. Foreign countries are clearly unwilling to make this and other important changes sought by U.S. interests unless the United States agrees to adopt a first-to-file system.

If the United States retains the first-to-invent system, the Commission believes that the United States should not take a partial step toward harmonization by permitting applicants to establish dates of invention by

reference to inventive activity in foreign countries. Stated otherwise, if the U.S. retains its first-to-invent system, it should also retain 35 U.S.C. §104, which does not permit a party to introduce evidence of inventive activity that took place outside the U.S. to establish priority of invention during an interference proceeding. The Commission is aware of the non-discrimination provisions of Article 27(1) of the current draft of the GATT Trade Related Aspects of Intellectual Property Rights (TRIPs) agreement, as published on November 20, 1991.

To some foreign inventors, § 104 appears to favor U.S. inventors during interference proceedings. Yet, if the United States retained the first-to-invent system, and changed § 104 to permit introduction of evidence of foreign activities relating to conception, diligence and reduction to practice, there would remain a lack of substantive support for such evidence. Furthermore, it would be difficult to implement such a rule procedurally, even if it did find favor on the merits. Were § 104 to be removed from U.S. law, U.S. inventors could lose patent rights to foreign inventors, and could be subject to vastly increased invalidity defenses based on prior foreign conceptions of patented inventions. Even in those situations where patent rights were not actually lost, the cost of both making a patent defense and pursuing a patent invalidity attack will be substantially increased.

Moreover, eliminating Section 104 would make early filing dates of paramount importance to U.S. inventors in a first-to-invent system. One of the alleged advantages of the current first-to-invent practice in the United States is that the filing of patent applications can be delayed until the inventor's continued development justifies the effort and expense. Regardless of the accuracy of this asserted advantage, it would be greatly diminished in a situation where every inventor—U.S. or foreign-based—has an equal opportunity to demonstrate a pre-filing invention date. If first-to-invent practice continues in the United States, but without the protection afforded U.S. inventors by § 104, U.S. inventors will continue to bear the burdens associated with the first-to-invent system, and the "pseudo first-to-invent" system that remains will become more functionally a first-to-file system.

II. PATENT TERM

A. Introduction and Overview

The patent term in the United States is currently 17 years from the date of patent grant.[29] In contrast, many industrialized nations provide a 20-year patent term measured from the filing date of the application. This reflects a strong international trend which many countries, including those which currently have far shorter terms, are now contemplating as part of an overall reform of their patent systems (e.g., eastern European countries, Mexico, Russia, and Thailand). A patent term of twenty years from filing date is also called for in drafts of the WIPO Harmonization Treaty (Article 22) and the GATT TRIPs agreement (Article 33 of the "Dunkel text").

The 1966 Presidential Commission on the Patent System included a recommendation that "[t]he term of patent shall expire twenty years after its earliest effective U.S. filing date." The 1966 Commission outlined certain adverse effects of a term measured from grant. For example, they explained that a term measured from grant encourages deliberate delays in the prosecution of applications, adding that parties could file continuing applications solely to delay the start of a patent term. They reasoned that adoption of a term measured from filing would remove any incentive for parties to intentionally delay the issuance of patents. In addition, the 1966 Commission observed that measuring the patent term from the filing date would bring U.S. practice into closer conformity with most foreign systems.

Critics of the current U.S. scheme of measuring patent term from grant have cited cases in which a patent remains in force for an extended period in the U.S., while counterparts of that patent have expired in the rest of the world. Thus, the U.S. patent acts to bar only American companies from exploiting the patented invention, while foreign companies are free to use the invention outside the U.S.

Another problem, although infrequent, is the so-called "submarine" patent. These are patents on basic processes or products of technology filed shortly after development of the technology which then issue long after an industry has been established in that technology. These patents may have serious detrimental effects on established industries when they "surface," particularly when the patent covers basic elements of the technology.[30]

B. Public Comments

Several responses supported changing the patent term to a fixed term from the filing date, with 20 years being the commonly suggested term. Some proponents suggested that this change be made in the context of patent law harmonization, and others recommended that it be undertaken unilaterally.

The following disadvantages with the present system of measuring from grant date were noted:

(1) the problem of "submarine" patents issued long after filing due to delays in prosecution, interferences, continuation practice, and appeals;

(2) expiration of patents abroad long before their expiration in the United States, which could encourage competitors to build plants abroad and could harm consumers;

(3) without provisional protection in the United States, an applicant has no remedy against "infringers" prior to grant, which can be troublesome if a foreign counterpart application is published, but the U.S. grant is delayed; and

(4) in some cases, the present term of protection (17 years from grant) can be shorter than a term of 20 years from the filing date.

Those who responded in favor of the present term measured from the grant date pointed to the certainty as to expiration date of patents under this system, and noted potential loss of patent term for extended delays in patent prosecution.

C. *Recommendations and Discussion*

Recommendation II-A

Change the term of patents from 17 years from the date of grant to a term of 20 years from the date of filing of the complete patent application as part of a first-to-file system.

The primary benefit to patent applicants of measuring the term of a patent from its date of grant is that the applicant does not lose part of the term due to delays in prosecution, whether due to the activities of the applicant or to circumstances beyond the applicant's control. While the individual applicant may benefit through this type of patent term, the public generally is placed at a disadvantage. For example, a patent term measured from date of issuance provides no deterrents for intentionally prolonging prosecution. Furthermore, there is a much greater risk of so-called submarine patents which stem from a long series of successive, related patent applications.

The public benefits most when the patent term is measured from the filing date since this encourages an applicant to cooperate with the Patent and Trademark Office in reducing pendency time. It also avoids the disruption to commerce that occurs when patent rights, appropriate for granting in an earlier era, are granted at some later date.

Recommendation II-B

Where a patent is granted on an application which invokes one or more earlier domestic complete applications, the term of the patent shall be counted from the filing date of the earliest-filed complete application invoked in the subsequent application.

By switching to a system which measures the term of patents from their filing date, the United States can eliminate one potential source of abuse of the patent system; namely, the use of successive continuing applications to prolong prosecution and delay the grant of patents. This will reduce the benefits that accrue to the patent owner who chooses to delay, either intentionally or through use of accepted administrative procedures, the issuance of a patent.

This recommendation will eliminate the uncertainty related to patent term where a patent claims priority to a number of earlier applications. Where a patent claims priority to one or more earlier domestic complete applications, the term of the patent is measured from the filing date of the earliest-filed application invoked in the subsequent application. This rule would apply to all forms of continuing applications -- continuation, continuation-in-part, and divisional applications -- whose term would be measured from the filing date of the complete parent application. If a provisional patent application system is also adopted, the term should be measured from the filing date of the first complete, non-provisional application filed.[31]

Recommendation II-C

Address exceptional circumstances in the following manner:

(i) provide no extensions for administrative delays, such as appeals; however, such proceedings should be handled expeditiously;

(ii) maintain existing provisions for patent term restoration under 35 U.S.C. §§ 155-156 for delays due to the Federal regulatory approval process;

(iii) permit extension of the term of any patent whose grant has been delayed by the imposition of a secrecy order for a period equal to the period of the delay, up to a maximum of five years, and amend 35 U.S.C. § 183 to provide compensation for the period of delay, if any, which exceeds five years.

The Commission recognizes that certainty associated with the duration and expiration of patents is an essential component of an effective patent system. Yet, in certain extraordinary circumstances, equity demands action to remedy a loss of patent term due to forces outside the control of the patent owner. Congress has already designated one class of situations as deserving of this exceptional remedy; namely, loss in patent term due to the regulatory review process for patented pharmaceutical

products.[32] In doing so, Congress recog-nized that the extension of patent term was to be available for only exceptional circumstances, and not for routine admin-istrative delays during patent prosecution. Given the strong public interest in preventing the extension of the patent term past a reasonable period after disclosure of the patented technology, Congress has indicated that the appropriate maximum extension is five years.[33]

It is important to emphasize that in a system which measures term from the date of filing, there will be a strong pressure on applicants and the USPTO to rapidly and efficiently conduct examination of patent applications. Where issuance of a patent is delayed through the appeal process, whether internally at the USPTO or through further appeals in the Federal court system, a loss of

There are other situations where a delay in the issuance of a patent can subject unsuspecting users of a technology, having made substantial investments, to a patent infringement action once the patent issues. Such patents are colloquially referred to as "submarine patents", and the public usually has little redress under the current patent system.

Where the term of a patent is measured from the filing date, secrecy orders could, in extreme cases, eliminate the entire term of a patent. For the majority of cases, however, secrecy orders last less than five years. A balance between the desire to prevent an unreasonable diminishment of a patent term, and the goal of avoiding creation of "submarine patents" is necessary. For this reason, the Commission recommends adopting patent term restoration provisions

III. PUBLICATION OF PATENT APPLICATIONS

A. Introduction and Background

In the United States patent system, patent applications are held in confidence by the USPTO and not published until a patent is granted.[34] Patent rights begin on the date of grant. The Japanese and European patent systems provide for publication of patent applications 18 months after their effective filing dates (prior to grant), and feature provisional protection[35]. The subject of publication of patent applications is under consideration in the WIPO Patent Harmonization negotiations.[36]

The principal issue addressed by the Advisory Commission was whether the United States should publish patent applications prior to grant of a patent. The Commission also addressed the related issues of mode and timing of publication, plus what, if any, provisional protection should be afforded the patentee during the period from publication until patent issuance.

B. Summary of Public Comments

The public response varied considerably on the subject of early publication of patent applications. Some members of the public oppose adoption of early publication unless undertaken as part of a harmonization package, while others favor unilateral adoption of an early publication system. Responses were similarly split as to the timing of early publication, with some preferring publication at 18 months from the earliest filing date and others expressing support for 24 months. Most respondents suggested that provisional protection would be a necessary component of any early publication system. Several members of the public expressed support for an "accelerated publication on request" option, and some responses urged adoption of an accelerated examination system.

C. Recommendation and Discussion

Recommendation III-A

(i) Publish patent applications within 24 months from the earliest priority date claimed by the applicant, including the date of filing a provisional application.

(ii) Publication should take the form of laying open to public inspection of the specification and claims of the patent application, as well as the search report when available, and should be accompanied by publication of an abbreviated format of the application.

(iii) Give patent applicants a claim for compensation from an infringer of published claims which later issue in a patent where the infringer has been given written notice during the period after publication; the claim will entitle the patent owner to compensation for the period from the date of actual notice until issuance of the patent.

(iv) Permit applicants, through the payment of a special fee, to request an accelerated examination by the USPTO and/or publication of the application prior to the 24th month.

(v) Urge the USPTO to issue first actions on the merits on patent applications in time to permit applicants to decide, with that knowledge, whether to abandon their applications without publication or to proceed with prosecution of their applications.

While the Commission discussed the publication of patent applications as part of a comprehensive system to harmonize the

world's patent laws, the specific wording of the recommendation is not predicated on a harmonization treaty.

(1) Rights of the Applicant and the Public

One traditional right of U.S. patent applicants has been to keep patent applications confidential until the date of patent grant. This has allowed applicants to retain trade secret protection for the invention until the patent issues and is disclosed to the public. The applicant also gains knowledge about the extent of patent coverage that will be forthcoming prior to disclosure of the invention to the public.

While these benefits clearly are attractive for the individual patent applicant, they have an opposite effect on the public in general. Early publication of pending patent applications would primarily benefit the public, because it would accelerate access to information contained in the patent disclosure, and would permit identification of potential patent conflicts sooner. These benefits would, in turn, speed technological progress by providing useful information to the public at an earlier stage after its discovery.

The optimum balance is believed to be struck by having an efficient patent granting process which takes less than two years to complete examination, coupled with early publication at some fixed time after filing to account for the cases where prosecution time is extended beyond two years from the earliest effective filing date. In order to make an informed decision on whether to disclose the technical innovation described in a patent application, however, the applicant needs a first office action on the merits at least three months prior to publication. This would permit the patent applicant to make a decision to abandon the application without publication if the likely scope of protection, if any, is deemed by the applicant insufficient to justify a public disclosure of the applicant's development. Of course, where an applicant's counterpart application abroad is published, that applicant would have no equity to keep the U.S. application secret or to avoid its publication in the United States.

The fixed time to publication in many other patent systems around the world is set at 18 months from filing. This time frame would require the USPTO to issue a first Office action on the merits within 15 months from the earliest effective filing date if three months are given to applicants to make an informed decision on whether to proceed with prosecution of the application or withdraw prior to publication. It is unlikely that the USPTO will be able, in the near term, to meet this time period for a number of patent applications. Also, U.S. applications based upon foreign applications and filed 12 months from the priority date would require a special/accelerated examination procedure since there would only be six months remaining in the 18-month period for publication. Publication at 18 months would thus have the undesired effect of giving examination priority to U.S. applications based on foreign-originated applications generally having foreign inventors, ahead of U.S. applications filed originally in the United States and generally having U.S. applicants.

(2) Cost Considerations

Cost is another important factor influencing the decision to recommend publication at the maximum period now contemplated in the proposed harmonization treaty (i.e., 24 months) rather than at 18 months. Deferring the time for publication will lead to a greater proportion of patents not requiring publication prior to grant. At 24 months, for example, a much larger proportion of pending applications will have been fully examined and issued, and as such, will not need to also be published as a pending application. It has been estimated that 50% of patent applications would fall in the already issued category if the period were 24 months.

Cost considerations also favor printing titles or abstracts only, and making the identified patent application files available for copying by interested parties. Studies by the USPTO indicate that early publication at 24 months would add approximately nine million dollars per year to USPTO operational costs.[37] It may be that full early publication will become practical only after electronic access to pending applications, now in the planning stage, becomes a reality.[38] Electronic access would not only trim USPTO costs, but also offers the promise of lower costs to users of the early publication procedure.

(3) Provisional Rights

The Commission recommends that applicants be given provisional patent protection in the form of a right to reasonable compensation from infringers of finally issued, previously published, claims with actual notice. Provisional patent protection should not result in any loss of existing patent rights. In particular, there should be no room for speculation that such provisional rights will be accompanied by a form of compulsory licensing of interim infringers for the period after the patent issues or that the patentee's subsequent rights under the issued patent to exclude infringers from practicing the invention are in any way diminished.

If the provisional patent application procedure is adopted as proposed in the first-to-file recommendation, the later complete application would be published within 24 months from the earliest claimed filing date, whether a foreign patent application filing date or a provisional application filing date. In the case of a special fee paid for accelerated publication/examination, publication should occur within six months from the date when such a fee was paid.

The Commission is unanimous in the general recommendation that an early publication procedure be adopted in the United States for patent applications.

IV. IN RE HILMER

A. Introduction and Overview

Under current U.S. law, a U.S. patent may be used as prior art for both novelty and obviousness purposes[39], upon the grant of the patent, with the prior art effect being retroactive only to the earliest effective filing date in the United States, and not to the foreign filing date. This is commonly known as the "Hilmer rule."[40]

The WIPO Draft Patent Harmonization Treaty would require countries to consider a patent application as prior art from the earliest effective filing date, including the foreign priority date, for matter contained in both applications, if that application is later published.[41] The Draft Treaty would require that countries provide this prior art to such applications for determining novelty, and could optionally also use them for purposes of determining obviousness under Article 13.

In the European Patent Office, a patent application which has been published is effective as a prior art reference as of its earliest effective filing date, including foreign priority dates, for novelty purposes only, and not for determining the "inventive step" (obviousness) of such later filed applications.[42]

The Japanese also give patents a prior art effect retroactive to the foreign priority date, for purposes of novelty only.[43] However, Japanese Patent Office interpretation of novelty in this regard is said to be something beyond "identical", but not as far as obviousness.

The questions before the Commission are:

(1) should U.S. patent applications be given a prior art effect as of their earliest effective priority dates, including foreign priority dates?

(2) if so, should such applications be given the prior art effect for purposes of novelty only, of both novelty and obviousness, or of a standard somewhere in between these?

B. Summary of the Public Comments

The members of the public responding to this issue held widely divergent views on which little consensus could be discerned. Each of the options for changing the "Hilmer rule" discussed below was favored by a portion of the respondents. The various suggestions and arguments presented in the responses are reflected in the discussion of these alternatives which follows the recommendations.

C. Recommendations and Discussion

Recommendation IV-A

(i) If the U.S. retains a first-to-invent system, the "Hilmer rule" should be maintained "as is." The U.S. should only change the "Hilmer rule" in the context of a global harmonization package.

(ii) If first-to-file is adopted as part of harmonization, U.S. patents and published U.S. applications should be applicable as prior art references for novelty as of their earliest effective filing date (foreign priority date), and for both novelty and obviousness as of their U.S. filing date (including filing date of provisional application).

(iii) Whether or not the U.S. adopts a first-to-file system, if publication of applications is adopted, the applicability of a prior-filed U.S. application as prior art should occur when the U.S. application either issues as a U.S. patent, or is published, whichever occurs first, whether or not the "Hilmer rule" is changed. The earliest U.S. filing date should be the effective date for prior art purposes.

Outside of academic circles, little attention has been given to the "Hilmer rule" in the United States patent community in the

more than two decades of its existence. Impetus for change in the "Hilmer rule" developed during the negotiations on patent law harmonization, in which the United States has been urged to harmonize its definition of prior art with respect to senior-filed patent applications with other countries, particularly the countries of Europe and Japan.

Change in the "Hilmer rule" would open up an additional one year of prior art because those U.S. applications claiming foreign priority would be effective as prior art references up to one year earlier against pending applications.[44] Hence, changing the "Hilmer rule" would allow such foreign-originated U.S. applications to "knock out" more U.S. patent applications, whether themselves U.S.-originated or foreign-originated, than is presently the case. The effect would be fewer patents being granted in the U.S.

For these reasons, the Commission supports changing the "Hilmer rule" only in the context of a patent law harmonization package, which, on the whole, provides advantages to U.S. inventors, in our first recommendation (i) above.

The second recommendation specifies the particular prior art effect that U.S. patents and published U.S. patent applications should be given in a first-to-file system. This recommendation represents the preferred choice among several options, each of whose advantages and disadvantages were carefully considered by the Commission.

The following two alternative approaches were considered to have greater disadvantages than the recommended approach:

Novelty-Only Approach

> U.S. patents and published U.S. applications should be applicable as prior art references for novelty purposes only as of their earliest effective filing date (foreign or domestic priority date), and for obviousness as of their publication date.

Novelty-and-Obviousness Approach

> U.S. patents and published U.S. applications should be applicable as prior art references for both novelty and obviousness, as of their earliest effective filing date (including foreign priority date and domestic priority date to a provisional application).

The recommended approach has advantages over these alternative approaches, because it minimizes the effect of making an extra year of prior art available while giving foreign-originated U.S. patents and published applications a prior art effect for novelty purposes as of their foreign filing dates. The recommended approach would permit fewer patents which are only obvious variants of each other to issue than under a novelty-only approach, because U.S. patents could be cited for obviousness purposes as of the U.S. filing date, rather than the publication date. In addition, the recommendation would reduce the need for reviewing priority documents, as compared with a "novelty-and-obviousness" approach, because the number of novelty rejections is typically a fraction of the number of obviousness rejections. Finally, foreign applicants would be permitted to obtain a prior art effect as of their earliest filing date for purposes of both novelty and obviousness by filing a U.S. provisional application filing.

The Commission also considered a proposal to adopt a new standard of patentability somewhere between novelty and obviousness in the context of discussing what prior art effect should be given to senior-filed patent applications upon their publication. This approach was solidly opposed because of the inherent uncertainty involved in the definition and implementation of such a new standard. The concepts of novelty and obviousness are well-developed in U.S. patent law, and to adopt an altogether different standard would create an enormous potential for unnecessary litigation.

The Commission carefully considered the advantages and disadvantages associated with each of the alternatives outlined above, and believes the recommended approach to be optimal if current practice is to be changed with regard to a harmonization treaty.

The third recommendation of the Commission on this issue clarifies that, should the U.S. adopt publication of patent applications, then the published patent applications should be given prior art effect as of their filing dates, whether or not the "Hilmer rule" is changed. Under this recommendation, published U.S. patent applications would be treated in the same manner as U.S. patents for prior art purposes.

NOTES FOR PART ONE

1 35 U.S.C. § 102(g) provides:

A person is entitled to a patent unless - -

> (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

2 Other than the United States, only Jordan and the Philippines retain the first-to-invent system, and legislation introducing a first-to-file system is pending in the Philippines. Canada replaced its first-to-invent system with a first-to-file system in the Canadian Patent Act of Nov. 19, 1987, effective Oct. 1, 1989.

3 The first-to-file issue has been the subject of debate for over 25 years. For example, the 1966 Presidential Commission on the Patent System addressed this precise question, and recommended that the United States adopt a first-to-file system.

4 While the principal forum for negotiations is the WIPO patent law harmonization negotiations, efforts to establish a first-to-file rule of priority as the norm were made by other countries during the negotiations on the Trade-Related Aspects of Intellectual Property (TRIPs) in the General Agreements on Tariffs and Trade (GATT).

5 The number of responses addressing this issue was second only to the number of responses addressing the question of protection of computer program-related inventions.

6 Our recommendation of a provisional application procedure expands upon a proposal in the 1966 Report of the President's Commission on the Patent System, which states:

> A preliminary application may be used to secure a filing date for all features of an invention disclosed therein, if the disclosure subsequently appears in a complete application. Requirements as to form shall be minimal and claims need not be included.
>
> One or more preliminary applications may be consolidated into one complete application filed within twelve months of the earliest preliminary or foreign application relied on.

In its report, the Presidential Commission noted:

> Under this recommendation an applicant would file a written description of his invention in a preliminary application, a document with minimal requirements as to form and needing no claims. This would permit early filing of an application, since it could be prepared by someone having little knowledge of patent law and procedure. Applicants should be made aware, however, that the protection afforded by the preliminary application will greatly depend upon the adequacy of the disclosure contained therein... .
>
> Each claim in the complete application would be entitled, for the purpose of overcoming prior art, to the date on which its supporting disclosure was first fully presented in a validly asserted foreign, preliminary or earlier complete application... .
>
> The preliminary application technique would create no significant burden for the Patent Office. Preliminary applications need only be stamped with their date of

> receipt and stored pending the filing of a complete application, and even then would only be considered if the effective date of the complete application was brought into question.
>
> The Commission's recommendation further delineates the proposal of the 1966 Commission on the Patent System. Minimizing the formal requirements for provisional applications would facilitate their earliest possible filing, and therefore maximize their benefit.

7 The Commission is recommending that the "best mode" requirement of 35 U.S.C. § 112 be deleted as a requirement for U.S. patent applications. The best mode issue is addressed in full in Issue V, Cost and Complexity of Patent Enforcement. It is noted here, however, that if the best mode requirement is retained, it should apply as of the filing date of the provisional application. In other words, there should be no requirement to update best mode at the time of filing the complete application. Otherwise, the best mode requirement could become an even more burdensome trap to patent applicants than at present.

8 The Commission recommends deferring the oath requirement and inventorship nomination requirement until the filing of the complete application, because substantive examination would not begin until after the complete application is filed. Inventorship is often difficult to decide, as it first requires a decision as to what to be claimed as the patentable invention. Only after this is determined can the contributions of multiple inventors be considered. Similarly, delays in filing provisional applications could be reduced by permitting deferral of the filing of the oath or declaration until the filing of the complete application.

9 A party could take advantage of two or more priority dates through the filing of multiple provisional applications prior to filing a full patent application.

10 Article 4(A)(1) of the Paris Convention provides the right of priority for foreign filing purposes, specifically:

> Any person who has duly filed an application for a patent, or for the registration of a utility model, or of an industrial design, or of a trademark, in one of the countries of the Union, or his successor in title, shall enjoy, for the purpose of filing in the other countries, a right of priority during the periods hereinafter fixed.

11 Article 4 bis(5) of the Paris Convention provides:

> Patents obtained with the benefit of priority shall, in the various countries of the Union, have a duration equal to that which they would have, had they been applied for or granted without the benefit of priority.

12 This discrepancy in patent term will occur if the United States adopts a patent term measured from the date of filing, as opposed to the date of the patent grant. The Commission supports such a change to the term of U.S. patents (see Issue II).

13 35 U.S.C. § 102(b) provides that a person is entitled to a patent unless --

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

14 *See* 37 C.F.R. § 1.131 which requires an affidavit from the patent applicant attempting to "swear behind" a prior disclosure.

15 Publication or disclosure after U.S. filing, but before filing abroad, will not prejudice patent rights abroad, if occurring during the period of priority provided under the Paris Convention (Art. 4B).

16 *See* Article 12, *Disclosures Not Affecting Patentability (Grace Period)*, Draft Treaty Supplementing the Paris Convention for the Protection of Industrial Property as far as Patents are Concerned (Draft Patent Law Treaty), WIPO Document PLT/DC/3 of December 21, 1990. It should be noted that publication or other public disclosure of an invention caused independently of the patent applicant prior to the filing date would be considered prior art, and would not be protected by the contemplated "personal" grace period. Only "self-created" prior art would be protected under the first-to-file grace period because, in a first-to-file system, prior art is defined in terms of the filing date of an application, rather than the invention date.

17 *See* Charles L. Gholz, *How the United States Currently Handles the Interference Issues That Will Remain in a First-To-File World*, 18 A.I.P.L.A. Q.J. 1 (1990).

18 For a comparative survey of prior user rights provisions in foreign countries, see "Prior User Rights", the MEMORANDUM OF INTERNATIONAL BUREAU, pp. 17-18 and Annex II, HL/CE/IV/ING/2 Rev.1 (English) (May 30, 1980).

19 Under Article 4(B) of the Paris Convention, acts which occur during the Convention priority year (i.e., after the earliest effective filing date of a patent application) cannot give rise to prior user rights. The form of prior user rights provided by a country, if any, is reserved in accordance with its domestic law under Art. 4(b). Hence, while prior user rights provisions have common characteristics, they do vary considerably country by country.

20 *See* Article 20, Draft Patent Law Treaty, *supra* note 16.

21 35 U.S.C. § 102(g) (1988).

22 It is said that failure to address the prior user issue was one reason why the 1966 Presidential Commission's recommendation to change to a first-to-file system was never adopted.

23 Opponents of the prior user right note that freedom to practice can be ensured by mere publication, which can be done cheaply, quickly and, if desired, anonymously.

24 Opponents of the right also point out that because the United States has a more litigious society prior user rights litigation could become more common in this country.

25 Proponents also argue that forcing trade secret users to file for patent protection in the U.S. could benefit offshore users in countries where process patent infringement is difficult to prove because of a lack of any discovery mechanism in litigation.

26 Kewanee Oil Co. v. Bicron, 470 U.S. 470, 181 U.S.P.Q. 673 (1974) (the Supreme Court held that Ohio's law of trade secrets was not preempted by the Federal patent laws. The court noted that "trade secret law and patent law have co-existed in this country for over one hundred years. Each has its particular role to play, and the operation of one does not take away from the need for the other.")

27 *See* the discussion regarding deletion of the best mode requirement in Part II.

28 *See* Griffith v. Kanamaru, 816 F.2d 624, 2 U.S.P.Q.2d 1361 (Fed. Cir. 1987) (attempt to finance experimentation does not constitute diligence).

29 35 U.S.C. § 154.

30 The 1966 Commission recommended that the term of a patent whose issuance was delayed by reason of the application being placed under secrecy order should be extended for a period of equal to the delay in issuance of the patent. This change would compensate for the loss of patent term under a system measuring the patent term from the filing date rather than grant date. Of course, this could lead to the situation where a

patent term could be extended far beyond its normal expiration date, taking competitors by surprise. Hence the recommendation is more balanced.

31 *See* note 11 and accompanying text.

32 The Drug Price Competition and Patent Term Restoration Act of 1984 amended Title 35 to add section 156. These provisions permit patent owners to recoup up to five years of patent term lost due to the FDA regulatory review process. There are strict limits applied to the patents which are eligible for extension, the maximum length of any extension, and reductions in extensions due to delays by the patent owner.

33 *See* 35 U.S.C. § 156(g)(6)(A), which states:

> (6) A period determined under any of the proceeding paragraphs is subject to the following limitations:
>
> (A) If the patent involved was issued after the date of the enactment of this section, the period of extension determined on the basis of the regulatory review period determined under any such paragraph may not exceed five years.

34 35 U.S.C. § 122 ["Confidential status of applications"] provides:

> Applications for patents shall be kept in confidence by the Patent and Trademark Office and no information concerning the same given without authority of the applicant or owner ... .

35 The provisional right can be described generally as a right to compensation from infringers of finally issued, previously published, claims during the interval between publication and grant, where the accused party had actual notice from the publication of the patent application or received written notice from the applicant of its existense.

36 *See* Article 15 of the Draft Patent Law Treaty, *surpa* note 16.

37 This presumes that only one-half of the patent applications were published in this abbreviated way before issuance as patents.

38 *See* Appendix A for a description of the proposed Patent Application Management (PAM) System.

39 *See* Hazeltine Research, Inc. v. Brenner, 382 U.S. 252, 147 U.S.P.Q. 429 (1965) (prior art under 35 U.S.C. § 102(e) is part of the state of the art for determining obviousness under 35 U.S.C. § 103).

40 *See* In re Hilmer, 359 F.2d 859, 149 U.S.P.Q. 480 (CCPA 1966) (foreign priority date under the Paris Convnetion is not included in the patent-defeating date for purposes of 35 U.S.C. § 102(e)).

41 *See* Article 13, "Certain Prior Art Effect of Certain Applications," Draft Patent Law Treaty, *supra* note 16.

42 *See* European Patent Convention, Articles 54(3) and 56. *See also* "European Patents", *Manual of Industrial Property*, Supplement No. 61, page 5 (Octoibureau, March 1990) which states:

> The contents of such prior applications are to be considered in determining the novelty of the invention but not in deciding whether the invention involves an inventive step ... .

43 *See* Japanese Patent Law Article 29 bis.

44 It should be noted, however, that this additional year of prior art applies only as to unclaimed disclosure, because under the current U.S. system, priority can be claimed in an interference for claimed subject matter, and an interference is likely to be set up where two applicants are claiming patentably indistinct subject matter.