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# **UNITED STATES PATENT AND TRADEMARK OFFICE**

**PATENT**

**PUBLIC ADVISORY COMMITTEE**

**ANNUAL REPORT**

**NOVEMBER 30, 2007**

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# PATENT PUBLIC ADVISORY COMMITTEE

## ANNUAL REPORT

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### I. INTRODUCTION

The Patent Public Advisory Committee (or “Committee”) was created to advise Congress on the “policies, goals, performance, budget and user fees of the United States Patent and Trademark Office (“USPTO” or “Office”) with respect to patents.”<sup>1</sup> The Committee’s duties include the preparation of an annual report submitted to the Secretary of Commerce, the President, and the Committees on the Judiciary of the Senate and the House of Representatives.

This year, the Committee is focusing its report on practical challenges facing both the USPTO and the patent system of which it is a part. Specifically, we see three broad categories of issues that must be addressed with dispatch to ensure that the United States’ patent system continues its role of economic juggernaut. These issue categories are:

1. Quality;
2. Pendency; and
3. Flexibility.

The Committee well understands the interdependent and complex nature of these issues and recognizes that it does not have all the answers. Many of the most pressing concerns in the Office, such as goals, budgets, user fees and performance are inextricably linked to patent quality (“Quality”) and patent pendency (“Pendency”). The Committee believes itself obligated to present recommendations to support positive trends, to reverse negative trends and to present a constructive path forward for the USPTO. This report thus seeks to identify the key issues, explain the consequences of inaction or maintaining the status quo, and provide solid concrete recommendations for both the Office and policy makers.

### II. CHALLENGES

1. **Quality – The issue and consequences:** Nothing is more critical to the proper functioning of the U.S. patent system than providing the public with patents that meet all the statutory grounds for patentability. Patents that do not meet this standard violate the social contract granting a limited monopoly in exchange for public disclosure of the invention. Faith in the patent system is based on this fundamental presumption of quality. Axiomatically, no quality = no faith = no confidence in the patent system.

**Quality – The recommendations:** The Committee believes that “Quality” is dependent upon five essential components. These are: (a) providing a meaningful definition of quality; (b) accessing the best prior art; (c) accessing the best information available to the applicant; (d) assessing the appropriate level of examination resources necessary for highly complex applications; and (e) attracting and retaining the most qualified workforce.

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<sup>1</sup> See 35 U.S.C. §5(d).

- a. **Defining “Quality”**–The Committee is cognizant of the public debate as to what constitutes a “quality patent”.

For example, there has been much attention paid in the popular press over seemingly trivial patents covering everything from food items to sleep wear. The Committee is of the view, however, that these popular examples of “humorous” patents do not present realistic examples of “quality at risk,” and any attempt to derive, or reassess, quality metrics based on these examples is misguided. Rather, the Committee is of the view that the definition of Quality should start with the proposition that any patent that satisfies the statutory requirements of patentability is a Quality patent, without regard to the simplicity, or even absurdity, of the underlying invention. The USPTO itself has adopted this statutory foundation for its quality metrics, and assesses quality based on its own levels of consistency review to determine whether mistakes were made in the decision to issue the patent.<sup>2</sup> Using these metrics, the Office is meeting its Quality goals, and the quality-compliance rate is at an all-time high.

However, until an appropriate definition is articulated and accepted by the patent community and public at large, quality measurements, guidelines, and media perceptions will continue to be disjointed and will continue to provide fodder for public and Office frustration. This is not helpful to the system or the Office and must be corrected.

The Committee believes that until a more formal, realistic definition of Quality is developed and accepted by the patent community the Office should continue to use the statutory requirements of patentability while at all times seeking to clearly articulate that definition to the media and public at large.

- b. **Accessing the best prior art** – Patent examiners need to have access to the best and most relevant prior art for every invention. While examiners can access a broad universe of information via the USPTO’s EAST and WEST search systems, there does not presently exist a unitary search system that – with one query – provides full-text patent and non-patent literature results from a broad spectrum of sources, including foreign sources. With respect to foreign patents, only English-language abstracts of the patents – not the entire text – are currently available to the USPTO’s examiners. In today’s search-technology-rich, international environment, redundant, time-consuming or error-prone processes are unacceptable.

The Committee’s specific recommendations on access to the best prior art are as follows:

- i. *Adopt a unitary search system for all patents and non-patent documents* – The use of a unitary search system that allows for Internet search engine-type queries across multiple patent and non-patent databases is essential for improved prior art search results. The Office should establish a “search

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<sup>2</sup> The USPTO maintains five other objective quality measures, including rates of affirmance by the Board of Patent Appeals and Interferences, and the pass rate for the GS-12 proficiency examination.

system” blue ribbon panel in the second quarter FY2008 tasked with developing the requirements for such a unitary system. This panel should provide final recommendations for the Office by the fourth quarter of FY2008 and the system should be operational no later than the first quarter of FY2009.

- ii. *Establish patent-office database sharing* – The world’s issued patents and published applications comprise the greatest collection of technological data ever assembled. While the USPTO is involved in data sharing with a few offices, the Office should establish sharing agreements with ALL patent offices so that the USPTO examiners have access to ALL patent documents in the world. The issues of translation must be addressed by the Office as relevant prior art is published in many languages. The basis of trust in the system requires nothing less.
  - iii. *Establish examiner knowledge management systems* – Global organizations have been using computerized knowledge management systems for many years to ensure the retention of institutional memory. While the USPTO is working on an internal information-sharing pilot, the USPTO should develop a more robust system to ensure that it retains the institutional knowledge of its highly educated and skilled examination corps with regard to prior art references in and across technologies, including how these references relate to specific technologies. Such a system should enhance and facilitate remote learning and non-time zone based workforce collaboration as well as improving patent examination efficiencies.
- c. **Accessing applicant’s best information** – The process of quality examination begins with the applicant. The Office’s need for the most complete set of relevant prior art cannot be overemphasized. In our collective experience, the applicant often has access to the most relevant prior art and is in the best position to distinguish the claimed invention over this prior art. Unfortunately, when the Office receives numerous highly technical patent applications with little or no relevant prior art, not only is proper examination difficult, but a serious question of applicant’s motivation is raised.

As examples, applications have been submitted for inventions in the crowded art units of electronics and automotive technology, many of which did not cite even one piece of prior art. Since neither art area is new, one wonders how the applicant overlooked the relevant prior art. In instances such as these, we would argue that examination should not go forward. At the other end of the information-disclosure continuum, the Office sometimes receives applications with prior art submissions so voluminous as to completely overwhelm any examiner having, on average, 21.2 hours for application review. Extreme cases of this “data dumping” include applications having tens of thousands of pages divided among a thousand references or more. This “super-sized” application fails to provide any discussion of cited references relevance or priority to the application and as such, is a significant impediment to the

examiner's ability to timely analyze and consider the references, much less to craft a meaningful response. In such "super-sized" applications is it fair to the system and the public for any presumption be afforded to these "dumped" references?



Example of a "Super Sized" application.

Too little or too much information both present serious challenges to examination quality, and both abuses are created solely by applicants. These abuses must be prevented if the system is to function properly for the benefit of the public.

- i. *Revision of information requirement rules* - Applicants are under a duty to disclose material information to the USPTO. One way of meeting this obligation is to file an Information Disclosure Statement. The Committee recommends that the Office consider different ways to revise the current information disclosure statement requirements (e.g., Rules 1.98 and 1.99) to ensure that in egregious situations where large numbers of items or items of substantial length are cited in an information disclosure statement, examiners have the ability to require an explanation of the relevance of the cited items.

While the Committee is not recommending a blanket search requirement, it does note that applicants are already under an obligation of full disclosure, so that additional guidance from the USPTO in rules should assist in eliminating any ambiguity applicants might have with respect to "full disclosure" of information in their possession. The Committee leaves to the Office the conditions and timing of a special pre-examination search requirement. Finally, the Office should consider the ramifications of the Inequitable Conduct theory on any proposed rules.

- ii. *Encourage pre-examination interviews* - The Committee believes that conversation between applicant and examiner early in the examination process can greatly facilitate an examiner's understanding of the subject matter and thus expedite examination and development of the appropriate prior art for review; thus improving Quality and examination efficiencies. The Committee encourages both examiners and applicants to initiate interviews. In particular, we recommend that the USPTO rewrite Section 713.02 of the *Manual of Patent Examining Procedure* (MPEP) ("Interviews Prior to First Official Action") to promote and encourage interviews, noting that in almost all cases the examiner should find that "an interview would advance prosecution of the application." See MPEP Section 713.02. Conversely, applicant practice of seeking an interview before first action should be encouraged by the Office where the applicant believes an interview would advance prosecution.

- d. **Assessing the appropriate level of examination resources necessary for highly complex applications** – The Office is receiving an ever-increasing number of highly complex cases that require increased resources for adequate examination. In such cases, the current time allocation for the examiner to examine the application, and potentially the number of examiners to work on the application, may be inadequate.

An application may be "highly complex" by reason of "volume complexity" or "technical complexity." Volume complexity is exemplified by one particularly large submission the Office received, over 2,300 pages in length, including over 1,500 pages of drawing figures, with over 110 claims. Such an application clearly requires greater Office resources than does the average application. Technical complexity is exemplified by the presentation of an application difficult to understand because of numerous interrelated parts. The Office has already started work in this area by implementing a solution for the volume complexity in a graduated fee schedule for "excess" claims (more than 3 independent/20 total claim) as well as for "excess" pages (100+, with an additional fee for each set of 50 pages over 100).

For these types of highly complex applications the Committee recommends that the Office continue its efforts by:

- i. *Developing a "highly complex application" definition* – The Office should undertake a review of its applications to develop a practical definition for



highly complex applications, and specifically including the concept of “technical complexity,” for use with a new fee structure to be recommended to Congress.

- ii. *Developing a “highly complex application” fee structure* – The Office should develop a new fee structure that anticipates the real resource requirements necessary for properly examining the highly complex cases to ensure quality examination. For applications falling within this highly complex application fee structure, the Office should consider examiner workload balancing and an increased time for examination.
  - iii. *Retain Office Capability in the Face of Decreased Allowance Rates.* The Committee notes that the decreased allowance rates the Office is currently experiencing (see below in the budget portion of this report) is necessarily resulting in lost revenues in the form of foregone issue fees and, ultimately, foregone maintenance fees. This unintended consequence should be avoided by modifying the fee schedule, including the schedule for maintenance fees, so as not to adversely impact the overall capability of the Office.
- e. **Attracting and retaining the most qualified workforce** – Attracting and retaining the most qualified workforce possible is ultimately the key to a successful examination system. The most sophisticated search tools, and the clearest applications and standards are unavailing if the USPTO does not hire, train, and retain talented, dedicated employees.

The Committee believes that the USPTO can learn useful lessons from businesses that have discovered that a geographically dispersed and diverse workforce addresses several of the challenges facing the Office. First, the possibility of working in a location other than the Washington, D.C. metropolitan area may prove attractive to very talented workers who simply do not want to move to Alexandria, Virginia or its environs. Second, geographical diversity enhances the likelihood that mid-career employees – who presumably have established roots in their present location – would look to the USPTO as an employer of choice. Third, geographical diversity may reduce training burdens on the USPTO by encouraging it to explore remote training to a degree it has not yet exploited. For these and other reasons, the Committee believes that the Office should aggressively pursue a full nationwide workforce work plan in FY2008 that provides for the hiring, training, regional offices and flexible work rules of the sort that all successful global organizations currently use to find and retain employees.

The Committee’s specific recommendations on this national workforce plan are as follows:

- i. *Abolish antiquated duty station requirements* – Currently all examiners participating in the off-campus “hoteling” program must report back to the USPTO campus in Alexandria, Virginia for at least 1 hour per week, at their

own expense. This work rule severely limits the development of a nationwide workforce and must be abolished by any appropriate procedure.

- ii. *Extend Hoteling* – In its recent report<sup>3</sup> titled “U.S. Patent and Trademark Office Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog,” the GAO notes that the examining corps identified a flexible work schedule program and availability of a hoteling program among the top four enhanced work environment incentives offered by the USPTO. Currently, 44% of USPTO GS-13 through 15 patent examiners hotel.<sup>4</sup> More broadly, 88% of the USPTO’s eligible patent-examination corps currently participates in some type of telework program. The Committee is of the view that the Office must continue to pursue hoteling and other telework flexibilities for any qualified member of the patent examination corps that wishes to participate.
  
- iii. *Establish virtual regional offices* - In its most recent five-year Strategic Plan, the USPTO includes exploring the creation of regional offices among the initiatives needed to provide high quality examination of patent applications.<sup>5</sup> The Committee believes that a remote replication of the Office campus is not in the Office’s best fiscal or managerial interest. However, the Committee is encouraged by the Office’s initiation in FY2007 of a pilot “virtual art unit” program to determine whether a “brick and mortar” presence is necessary for successful examination. The results of this admittedly small (13 examiners and a supervisor) and limited (5-month) pilot are promising: productivity, job satisfaction, and morale rose, while use of sick leave fell. Communicating and working remotely is clearly well within current technological capabilities. However, we believe it is important for the USPTO to explore a geographically dispersed physical presence even if examination functions and training can take place without a “bricks and mortar” presence. We base this belief on preliminary findings from the Committee’s own various focus sessions, during which participants have identified “remote locations” as a service priority for the USPTO. We appreciate that there must be a business justification for remote locations, particularly if examination and training operations do not require remote facilities. We recommend that meaningful study of this issue take place in FY2008, with a conclusion and recommendation at the end of the fiscal year. Virtual offices are being used by all major global organizations as a successful tool to increase geographical workforce diversity as well and

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<sup>3</sup> GAO Report No. GAO-07-1102, September 2007, “U.S. Patent and Trademark Office Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog.”

<sup>4</sup> The USPTO makes hoteling available to over 2,300 of its 5,477 patent examiners. Over 1,000 of the 2,300 eligible examiners have chosen to participate in the Patent Hoteling Program, representing 44% of the GS-13 through 15 examiner population. To ensure that hoteling participants possess the necessary legal and technical competencies – and are able to work in a hoteling environment – examiners must pass the certification exam, their most recent recertification exam, or the registration exam.

<sup>5</sup> United States Patent and Trademark Office 2007-2012 Strategic Plan, at 16.

employee satisfaction. It is believed that the Office will benefit greatly from this type of resource allocation.

- iv. *Initiate university partnerships* - The 2007-2012 Strategic Plan also sets out as a key initiative the “explor[ation of] partnerships with universities to offer IP courses to science and engineering students, develop an internship program, and train students in IP to create a ready pool of examiner candidates.”<sup>6</sup> We understand that the USPTO has spent a significant amount of time in FY2007 working with universities to add intellectual-property components to law school, engineering school, and general undergraduate curricula. In addition to this focus, the Committee recommends that the Office partner with specific universities in a pilot program that offers loans to qualified engineering students willing to become examiners, where the loans are forgivable in specified annual increments on successive anniversaries of the examiner’s employment with USPTO. In this regard, the Committee does notes that during FY2007 the USPTO developed internal guidelines for offering loan repayment as both a recruitment and retention incentive. These guidelines should be piloted in FY2008.
- v. *Expand Workforce Flexibilities* - In the Committee’s experience, there are hundreds, if not thousands, of technologists who have largely completed exceptional careers in industry, who defined the “cutting edge” of technology in their respective field, and whose expertise far outstrips that of the recent college graduates who have been the primary demographic for examiner recruiting. Many of these people are looking for ways to stay active in their fields and retain their expertise. They are not looking to climb another career ladder. The Committee therefore recommends that the Office continue its path of expanding workforce flexibilities specifically to ensure a place for these seasoned professionals in its workforce.
- vi. *“Special Pay” for Patent Examiners* – Competitiveness in salaries is an obvious factor in attracting and retaining the best and the brightest. Mindful of this bottom-line reality, the Committee recommends that Congress appropriate to the USPTO each year the cost-of-living increase in compensation for employees in the 1220 series, so as to reestablish the special pay scale for patent examiners initiated in 2000. This has been a successful program and is in danger of being undercut unless this action is taken. To ensure implementation, we urge the Office of Personnel Management to approve annual requests from the USPTO to provide the cost-of-living differential to patent examiners, as meritorious and necessary to ensure a vibrant patent system. We urge Congress to consider the benefits to the patent system that would accrue from a USPTO that is able to offer hiring, training, and retention flexibilities not currently possible under Title 5 of the United States Code.

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<sup>6</sup> *Id.*

2. **Pendency – The issue and consequences:** Current average total pendency at the USPTO has reached 32 months from filing to issue or abandonment. While not all business models contemplate speedy patent prosecution, good public policy as well as optimum business planning for capital allocation, innovation cycles, product cycles and technology investment demand a patent system that provides timely review and decisions by the USPTO as required by inventors/assignees. Applicants must be assured of receiving a quality patent examination when they need it. No other system will work.

Over the past several years, pendency at the USPTO has experienced a year-over-year increase of 1 to 2 months. From 1999 to 2002, total pendency was fairly constant at 25 months. By 2003, total pendency increased to 26.7 months. By 2007, total pendency reached 32 months. In some Technology Centers, total pendency has risen to over 43 months. By the USPTO's own estimates, average total pendency will increase to over 38 months by 2013 in most art units.<sup>7</sup>

Numerous reasons have been given for this increasing pendency. Among them is the substantial year-on-year increase in the number of applications filed, particularly in high-complexity, high-tech areas.<sup>8</sup> This rising tide of technologically complex applications results in fewer total applications being examined, as the same number of examiners working the same number of hours will progressively complete fewer and fewer applications.

Another potential cause of the pendency problem, it has been suggested, is the diversion of user fees, on the theory that diversion of fees has impaired USPTO's ability to hire and retain qualified examiners.<sup>9</sup> While fee diversion has essentially not occurred in the last three years, the effects of previous diversion will continue to be felt as in the form of understaffing, training requirements and catch-up IT improvements. We note that the National Academy of Public Administration (NAPA)<sup>10</sup>, in its August 2005 report ("U.S. Patent and Trademark Office: Transforming to Meet the Challenges of the 21st Century") found that – had USPTO had access to all of the fees it collects, first action pendency could have remained at an average of 11.4 to 12.6 months. NAPA further concluded that, between 1992-2004, \$741 million of fee revenue was not made available to the USPTO. If the USPTO had used \$680 of the \$741 million hiring patent examiners, patents would have given an initial search and review (first action) 12.4 months earlier (7.8 months after filing) and a final decision would have been issued in 18.2 months (9.4 months earlier), the backlog would have been reduced

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<sup>7</sup> According to the USPTO, the 38-month pendency figure reflects efficiency gains as a result from the Claims and Continuation rule package that may not materialize if the rules package does not go forward.

<sup>8</sup> 441,637 UPR applications were filed in FY 2007, which represents a 5.2% increase over FY 2006 UPR filings of 419,760, a 9.2% growth from FY 2005. USPTO had projected a 7% growth rate in FY 2007 as compared with FY 2006.

<sup>9</sup> This Committee's own report for fiscal years 2006 and 2005 joined the chorus by attempting to draw a correlation between the amount of fees diverted and the number of examiners that could have been hired using those diverted funds, and then concluding that training and assimilation constraints precluded integrating into the number of annual hires an additional number to make up for hiring shortfalls in the prior years.

<sup>10</sup> NAPA Report No. 05-06, "U.S. Patent and Trademark Office: Transforming to Meet the Challenges of the 21st Century," August 2005, at 21.

by 562,676 applications, there would have been an additional 627 examiners on board in 2004 and the USPTO could have managed lower hiring levels into the future.<sup>11</sup>

No matter how dramatic the impact, we do not believe that diversion is the full explanation for the backlog problem. Candidly, a further cause of ever-increasing pendency is clearly applicants' behavior itself. From the filing of the n<sup>th</sup> continuation application, to the presentation of an excessive number of claims, to the late filing of information disclosure statements (IDS), to the failure to file any illuminating information, or the inclusion of large numbers of less relevant references in such statements, applicants severely and directly impact an examiner's ability to perform focused, timely and quality examinations. Such behavior must be brought under control in a manner that is fair to applicants.

Past diversion, a larger percentage of complex applications, and applicant behavior have combined to create the "perfect storm" of factors leading to historic levels of unexamined patent applications.

**Pendency – Recommendations:** The Committee believes that solutions to solving the Pendency problem can be categorized as a hierarchy of needs. These are: (1) the need to have a patent determination when the applicant requires it; (2) the need to gain increased patent examination efficiencies; and (3) the need to attract and retain a highly skilled examination core.

- a. Exploration of a market-based examination model – Applicants depend on and deserve timely review of their submissions. Business planning requires predictability to reap value. Longer patent pendency may actually be a tactical choice for some individual businesses and even industries, but it is not a sustainable model for promoting innovation.

There can be legitimate distinctions in timing. Not all applicants require the same turnaround. Even individual applicants may not need identical timing on each application filed. As a public entity, the USPTO cannot duplicate all the flexibilities available to private-sector entities. However, it is possible that one size does not fit all in the patent system.

A needs-based approach would provide the Office with a market-driven pendency system that fulfills the needs of the vast majority of the applicants while ensuring that the Office does not have to provide unnecessary, costly and arbitrarily short examination times while providing a realistic base for all non-essential applications.<sup>12</sup> Therefore the Committee recommends that the Office develop an exploratory, data driven, market based examination model for evaluation, taking fully into account the needs of the public and third parties. Again, all successful business organizations have market based delivery models that provide for the needs of their constituents, the

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<sup>11</sup> Id. at. 42.

<sup>12</sup> Restrictions should be put in place to prevent applicants from opting for longer pendency times solely as a means of expanding the scope of filed claims and reintroducing "submarine patents" back into the system.

Committee believes that the Office would be well served to evaluate such models itself.

- b. Gaining increased workload efficiency - The Office needs to find greater efficiencies in its processes to meet decreasing Pendency times. One recommendation entails providing for the full utilization of PCT searches by USPTO, and potentially the full faith and credit to Searches by EPO and JPO. As noted in the Quality section of this Report, ensuring that an application has been examined in light of the most relevant prior art is an essential component of a quality examination. The identification of that art is one of the more time consuming elements of an examiner's job. Fully 15% to 20% of the examiner's time is spent undertaking prior art searching. For many applications that have been filed abroad, much of that time is spent duplicating effort already undertaken by one of the other trilateral offices or even by USPTO itself when it is designated as the search authority for a PCT application. The Committee recommends that USPTO make the results of all such searching available to the examiner to the extent it is available.<sup>13</sup>

As a means of making this happen, the Committee recommends that USPTO cooperate with EPO and JPO in publishing search fields, data bases and search strategy, allow access to USPTO data bases, and generally encourage much greater communication by and between USPTO and these other offices. In addition, the Committee recommends that USPTO modify fee structures and processing times to reflect the benefit of a PCT or other trilateral searches.<sup>14</sup> In January 2006, the Patent organization commenced enhancement of its International Patent Classification (IPC) search capability, which introduced the IPC into the U.S. patent classification system in specific areas. The Committee recommends expanding this initiative to include technology centers having a base-line number of annual filings so that more examiners will benefit from enhanced search capabilities, mutual reliance on search results, and automatic enhancements to the IPC system developed by the USPTO in cooperation with other WIPO industrial property offices.

The Committee recommends that USPTO set a goal of achieving full utilization of foreign prior art searches, and expanded IPC search capability within six months of the date of this report.

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<sup>13</sup> The Committee leaves to USPTO the decision on whether to "outsource" PCT searching. In our view, whether the search is performed by full time employees, or on a contract basis by the Australian Patent or other contractors, use of the resulting search report should be, not only encouraged, but mandated if found to be of acceptable quality.

<sup>14</sup> The Committee is not recommending that USPTO defer to other patent offices on the extent to which any particular prior art reference impacts the validity of any claim, nor is the Committee recommending USPTO abdicate its responsibility thoroughly to examine claims in light of every reference. The Committee simply believes significant time can be saved by accepting as adequate search reports done in these other contexts. Past Trilateral studies have shown that independent searching by each office has often resulted in locating different art; however, the assessment of validity of impacted claims seldom changed, and "better art" was found only in 10% of the cases.

### III. PERFORMANCE

#### 1. Budget –

- a. Fiscal year 2007 review - The fiscal year 2007 appropriation of \$1.771 billion represented an increase of \$97 million, or 6% more than spending levels available in fiscal year 2006. Total funding available for spending in fiscal year 2007 was \$1.794 billion.

Estimated fee collections enacted for fiscal year 2007 were \$1.771 billion with the fee bill, as compared to actual receipts of \$1.783 billion. Planned obligations for fiscal year 2007 were \$1.794 billion, as compared to actual obligations of \$1.766 billion for the year.

The following charts illustrate actual USPTO expenditures for fiscal year 2007. Chart 1 illustrates spending by business area.

<b>BUSINESS AREA</b>	<b>FY 07 (Available \$ in 000s)</b>
Appeals Boards	27,443
General Counsel	11,823
Director's Office, External Affairs, CFO, CAO	85,366
Patents	1,098,038
Trademarks	90,305
CIO	248,774
MGE	204,675
Total	\$1,766,424

Fiscal Year 2007 Expenditures

- b. The President's budget request for FY 2008 - Turning briefly to fiscal year 2008, like last year, this year the anticipated appropriation of \$1.915 billion has no planned fee diversion.<sup>15</sup>

Based on the House and Senate subcommittee reports, the USPTO does not anticipate earmarks at this time.

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<sup>15</sup> The President's budget request included a proposed transfer to OPM for USPTO retirement benefits, but we do not view this as a diversion of fees for non-PTO uses, but rather, as a legitimate agency cost used for the employees of the USPTO.

USPTO anticipates the appropriation will, for the fourth year in a row, provide the USPTO with full access to all user fees paid to it, up to the full \$1.915 billion amount budgeted and appropriated.<sup>16</sup>

The Committee strongly recommends the adoption of legislation permanently ending diversion of user fees for non-USPTO expenditures. Additionally, the Committee strongly recommends that Congress pass legislation giving the USPTO authority to set and adjust patent fees. These provisions provide the USPTO with the tools to continue the productivity and quality programs it has initiated and improvements it has achieved in the past few years. These improvements are critical to US competitiveness and worldwide recognition of the USPTO as the leading office of its type in the world. Specifically, these provisions provide needed certainty in USPTO planning and ensure continuation of its successful recruitment, hiring, training, and retention of its qualified workforce; implementation of new processing and electronic filing programs; expansion of teleworking to a national level; and other quality and efficiency-based initiatives discussed earlier in this Report.

- c. Full access to funds - In legislation that ensures USPTO's full access to funds collected, the PPAC strongly supports the establishment in the U.S. Treasury of a revolving fund to be known as the "United States Patent and Trademark Office Public Enterprise Fund." All USPTO fees collected would be deposited into the fund, would be available without fiscal year limitation, and would remain available until expended.
- d. Anticipated deficits -

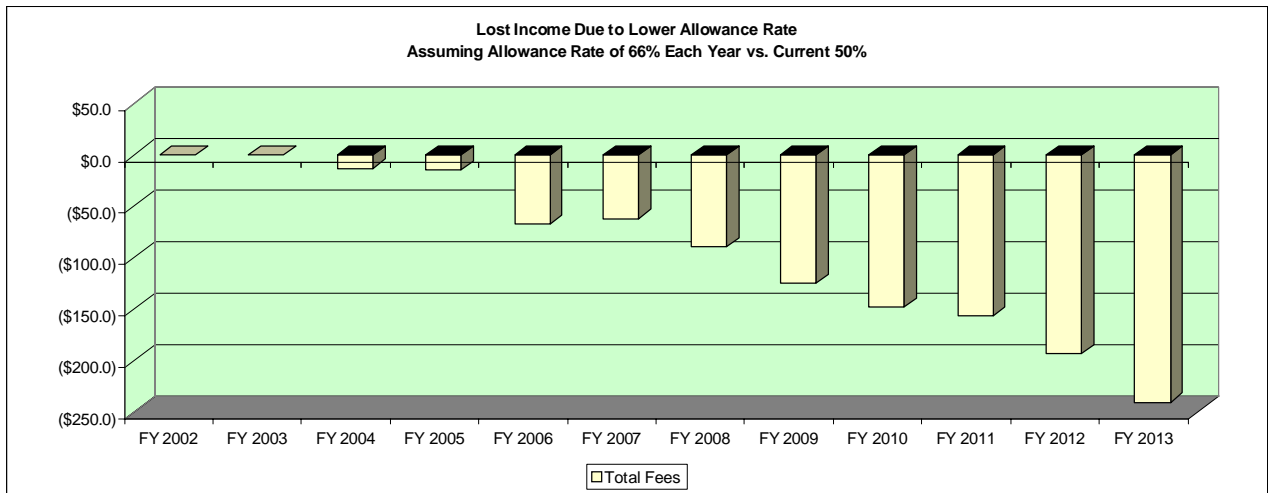
We note that the USPTO anticipates lower or "lost" income due to a lower allowance rate. The patent allowance rate in FY 2002 was 66% ( which is the approximate historical allowance rate for the last 20 years); it has since decreased to 50% and is assumed to remain at that level.

The graph below illustrates the actual or projected lost income annually due to the lower allowance rate (vs. remaining at 66%). Presently, the USPTO estimates the cumulative income loss through FY 2013 to total approximately \$1.1 billion (lost issue and maintenance fees as a result of fewer allowances.)

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<sup>16</sup> In one sense, the USPTO is "fully funded" since it is anticipated that there will be no diversion of fees. However, whether there in fact will be some diversion of user fees during fiscal year 2008 will ultimately depend on whether the actual fees collected by the USPTO exceed the amount appropriated for the USPTO for fiscal year 2008.





	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total
Total Fees	\$0.0	\$0.0	(\$12.8)	(\$14.8)	(\$67.1)	(\$61.7)	(\$89.3)	(\$124.4)	(\$147.7)	(\$156.5)	(\$193.0)	(\$240.0)	(\$1,107.3)
Allowance Rate	66.0%	66.2%	62.5%	58.7%	53.6%	50.9%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	

Impacts - Given its projected lower income, the USPTO will have to make smart and difficult funding decisions, starting in FY2008. We note that a reduced income stream also affects USPTO operations outside of the Patents area.

We are informed by the Office that the following items have already been reduced or are unfunded:

Patent Items –

- Competitively sourcing PCT searches;
- Recruitment and Retention bonuses;
- Competitive sourcing of Reclassification;
- Hiring technical experts and senior scientists in the Training Academy;
- Search strategy expert program;
- Expand Office of Patent Quality Assurance (OPQA);
- Expanded examiner education site visits;
- Expanded examiner technical training program;
- Patent technical support staff (PTSS) learning opportunities;
- Expand partnerships with universities;
- Administrative support (Office managers);
- Examiner student loan repayment;
- Examiner relocation reimbursement;
- Half of select vacant non-examiner positions.

Other USPTO Items –

- Workload increases for the Board of Patent Appeals and Interferences;
- IT development projects;
- IT operations and maintenance;
- Global IP Academy; and
- Various other non-compensation items (travel, capitalized and non-capitalized equipment, guard services, etc.).

These are critical programs that cannot be defunded if the goals of increased Quality and reduced Pendency are to be achieved.

2. **Highlights 2007** - In FY 2007, the Committee would like to recognize that the USPTO has made many improvements and demonstrated initiative and increased effectiveness. Of the many improvements the Committee would like to highlight the Office's achievements in the following areas; quality, productivity, recruitment, electronic filing, and PCT sourcing.
  - a. Quality - The USPTO showed improved quality results in each of the five objective measures of quality it currently tracks. Overall compliance rate stands at a record high 96.5%. In process compliance rate (quality reviews after first action) improved from 90% to 92.2%. Affirmances and affirmances in part at the Board of Patent Appeals rose to 69% (an 18 point increase over 2005). In addition, the passage rate of examiners being certified for promotion to the GS-13 level improved and recertification of primary examiners was over 95%.
  - b. Productivity – The USPTO implemented several programs that have increased employee morale and productivity by offering examiners more flexibility and opportunity. The hoteling program yielded an average annual increase in productivity of over 8% per patent examiner. Eighty-three percent of participants reported an increase in morale, while 87% agreed or strongly agreed that they would be willing to work more years at the USPTO because of the hoteling program. In addition, more than 2,300 laptops were distributed to examiners in FY2007, enhancing their ability to work remotely. While final results are not yet available, 70% of participants have already reported that their productivity increased – or even substantially increased – while 94% expressed overall satisfaction with the program, and 86% agreed or strongly agreed that their job satisfaction had improved as a result of this flexibility.
  - c. Recruitment - The USPTO also hired and trained 1215 new patent examiners in FY 2007, adding to the 1218 hired in 2006 and the 978 hired in 2005. The Patent Training Academy was expanded to better train the new examiners. In addition, the university outreach program has caused meetings with professors, deans, technology transfer directors and over 6,500 students in 42 schools, including the University of Maryland, the University of Virginia, Virginia Tech, Ohio State, Stanford, and the University of Wisconsin. The university outreach program is targeting schools that do or should help meet hiring goals.

The USPTO also successfully obtained a special pay rate increase of approximately 7% for examiners in the GS1220 series. Additionally, recognizing the criticality of retaining newly hired patent examiners; work was completed on a Recruitment Incentive AAO. Accordingly recruitment incentives were justified and approved and recruitment incentives implemented for all newly hired examiners. As a result, patent examiners, depending upon their technology area, are receiving incentives from \$5,000 to \$9,900 a year for the first four (4) years of their employment with the USPTO. Initial data indicates that these measures have greatly assisted with employee recruitment and retention, so that they may well be important flexibilities for hiring and retention.

- d. Electronic filing - The USPTO has also made great strides toward an end-to-end electronic system. E-filings have grown dramatically. Patent e-filings were only 2.2 percent of total filings in FY 2005. E-filings reach 14.2 percent in FY 2006 and jumped to 49.3 percent in FY 2007.
- e. Electronic Government - Another important pilot of a virtual art unit evaluated remote management and training needs. An additional pilot ran a work-at-home program for technical support staff. The number of patent examiners who can work at home has been increased from 500 to more than 1000, and electronic tools have been improved to further assist examiners in and out of the office. A pilot on e-red folders has been started to allow examiners to submit their work electronically. The development of a text based Patent File Wrapper (PFW) system has been expanded.
- f. PCT sourcing - In accordance with the revised 21<sup>st</sup> Century Strategic Plan, the USPTO implemented the initiative to competitively source the PCT Chapter I search and opinion work for up to 20,000 PCT applications per year. In October 2006, the USPTO directed two commercial firms to begin performing PCT Chapter I work. Additionally, in March 2007, the USPTO began competitively sourcing PCT Chapter I work to IP Australia. Also, in September 2007, the USPTO began a competitively sourcing pilot with the Swedish Patent Office for PCT Chapter I search and examination. The internal volume goal for FY 07 was to competitively source 25% of all incoming eligible PCT Chapter I applications<sup>17</sup>. For FY 07, there were approximately 27,500 eligible PCT Chapter I applications, which resulted in a competitively sourcing goal of approximately 6,875. This goal was far exceeded, as 16,144 PCT Chapter I applications were competitively sourced in FY07.

**User fees** – The Office is currently evaluating all of its user fees in light of actual costs and utilization. The Congress should anticipate a revised user fee request from the Office in the event that the fee provisions under consideration by the Senate are not enacted.

#### IV. CONCLUSIONS

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<sup>17</sup> An “eligible” PCT Chapter I application is a PCT application that selects the USPTO as the International Searching Authority and is not able to be transcribed by a paralegal.

The Committee believes that the Office has made a number of advances this year and should be commended for its hard work and vision. The Committee also believes that the issues of Quality and Pendency are the paramount challenges facing the Office and the patent system as a whole.

This report outlines a number of concrete recommendations that the Committee believes will move the Office and the innovation community toward solutions to the Quality and Pendency issues. There are no simple quick fixes, the issues developed for a number of reasons over an extended period of time, but these challenges are surmountable.

The Committee understands that it has not developed all the answers, but the Committee does believe that these recommendations along with the Office's sincere willingness to address these concerns in such a positive manner will ultimately create the patent system that the public desires and deserves. The American public, businesses that rely on the patent system and the United States' innovation community should expect nothing else.

Appendix  
2007 Patent Public Advisory Committee Annual Report

## Committee Members

**Kevin Rivette** – Mr. Rivette is the Committee's Chairman. Mr. Rivette was most recently the Vice President for Intellectual Property Strategy for the IBM Corporation. In September 2007 Mr. Rivette was honoured to be voted into the Intellectual Property Hall of Fame, by members of the IP community. He is a former patent attorney and litigator. Prior to his work with IBM Mr. Rivette was the Executive Advisor for Intellectual Strategy at the Boston Consulting Group (BCG). Mr. Rivette was also founder, Chief Executive Officer and Chairman of Aurigin Systems. Aurigin Systems was the first company to develop and commercially market visualization technologies for analyzing and understanding the competitive landscape of worldwide patents. Aurigin Systems was subsequently sold to Thomson Scientific.

For his work in IP tool development Mr. Rivette has been awarded over forty patents worldwide. In addition, Mr. Rivette is also the author of the business book on patent strategies, *Rembrandts in the Attic*. He has also written on this subject for many publications including *CEO*, *Chief Legal Officer Magazine*, *The Harvard Business Review* and has made numerous TV and radio appearances to discuss the strategic business use of Intellectual Property. Mr. Rivette and is a frequent speaker at international conferences, including, The World Economic Forum in Davos, Switzerland and he has also been a guest lecturer at Keio, Harvard and Stanford University business schools. He lives in Palo Alto California

**W. David Westergard** – Mr. Westergard is an attorney and inventor. He is the Director of Patent Licensing and European Litigation for Micron Technology Inc. Prior to joining Micron in 1995, Mr. Westergard worked for the law firm Arnold, White & Durkee in Houston, and has served as a law clerk for Judge Randall R. Rader on the Court of Appeals for the Federal Circuit.

**Douglas Patton** – Mr. Paton is an entrepreneur and inventor. He is the founder of Patton Design, a consulting firm that helps companies with strategy and new product development and has created over 450 new products for diverse market categories. He has received numerous patents for his work and, in addition, his work has been nationally and internationally recognized through numerous awards, including awards for design, engineering and ergonomics. Most recently, Mr. Patton developed a revolutionary new car seat for children that won the million-dollar first place prize on ABC's television series "American Inventor."

The **HONORABLE GERALD J. MOSSINGHOFF** – Mr. Mossinghoff is former Assistant Secretary of Commerce and Commissioner of Patents and Trademarks and a former President of the Pharmaceutical Research and Manufacturers of America, is Senior Counsel to the Firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C.. He is also a Visiting Professor of Intellectual Property Law at the George Washington University Law School. Mr. Mossinghoff has served as United States Ambassador to the Diplomatic Conference on the Revision of the Paris Convention and as Chairman of the General Assembly of the United Nations World

Intellectual Property Organization. He is a former Deputy General Counsel of the National Aeronautics and Space Administration.

Mr. Mossinghoff received a Juris Doctor with Honors from the George Washington University Law School and an Electrical Engineering degree from St. Louis University. He is a member of the Order of the Coif and is a Fellow in the National Academy of Public Administration. He is the recipient of many honors, including NASA's Distinguished Service Medal and the Secretary of Commerce Award for Distinguished Public Service. He is a member of the Missouri, District of Columbia and Virginia bars.

**Dean Kamen** – Mr. Kamen is an inventor, an entrepreneur and a tireless advocate for science and technology. His roles as inventor and advocate are intertwined -- his own passion for technology and its practical uses has driven his personal determination to spread the word about technology's virtues and by so doing to change the culture of the United States.

As an inventor, he holds more than 440 U.S. and foreign patents in the medical device technologies. He is the inventor of the first wearable infusion pump, which rapidly gained acceptance from such diverse medical specialties as chemotherapy, neonatology and endocrinology. In 1976 he founded his first medical device company, AutoSyringe, Inc., to manufacture and market the pumps. At age 30, he sold that company to Baxter International Corporation. Following the sale of AutoSyringe, Inc., he founded DEKA Research & Development Corporation to develop internally generated inventions as well as to provide R&D for major corporate clients. He is also the founder of [FIRST](#) (For Inspiration and Recognition of Science and Technology), an organization dedicated to motivating the next generation to understand, use, and enjoy science and technology.

Mr. Kamen was awarded the National Medal of Technology in 2000, awarded by President Clinton in 2000 for inventions that have advanced medical care worldwide, and for innovative and imaginative leadership in awakening America to the excitement of science and technology. He was also awarded the Lemelson-MIT Prize in 2002, and was inducted into the National Inventors Hall of Fame in May 2005.

**Lisa Norton** – Ms. Norton is a practicing patent attorney. Her experience includes representing Fortune 500 and other companies on patent prosecution and litigation matters. Ms. Norton is skilled in a variety of U.S. and foreign patent prosecution issues. In particular, she has focused on patent application preparation, prosecution, and opinion work related to software and computers, computer security, and methods of doing business. Ms. Norton has also worked for the U.S. Senate, handling technology issues. In addition, she has managed government affairs in the private sector, working on issues related to technology, computer security, and the Olympics. Ms. Norton is currently an adjunct professor at George Mason University's School of Law, where she teaches a class on patent application preparation.

**Max Grant** – Mr. Grant leads the Latham & Watkins LLP firm's Intellectual Property & Technology practice group in the Washington, D.C. office. He has served as Deputy Assistant Secretary of Defense. Before attending law school, he served as an aide to US Senator John McCain and as a Navy SEAL team leader.

Mr. Grant has over 70 trial days in court, and has been on trial teams in two *National Law Journal* Top Defense Verdicts. He has also negotiated intellectual property licensing partnerships and negotiated favorable settlements of multi-million dollar disputes concerning intellectual property licensing rights. Mr. Grant is the co-inventor of two United States Patents.

**Carl E. Gulbrandsen** – Mr. Gulbrandsen is the Managing Director of the Wisconsin Alumni Research Foundation. He received a B.A. from St. Olaf College, a Ph.D. Physiology from UW-Madison and his J.D. from UW-Madison. He is also a member of the patent bar. In addition he is the former Director of Patents and Licensing at WARF and the Vice President of Public Policy for the Association of University Technology Managers.

**M. Andrea Ryan** – Ms. Ryan is a patent attorney who has served as the Vice President and assistant General Counsel for patents at Wyeth Research. In addition, she is the past President of the American Intellectual Property Law Association and the New York Intellectual Property Law Association. She is currently Senior Patent Counsel at Transform Pharmaceuticals Inc., a Johnson & Johnson subsidiary, in Lexington, Massachusetts.