

PPAC

Patent Public Advisory Committee 2018 ANNUAL REPORT

*...an application for a patent...
and description of the invention are enclosed. The title
of law have been complied with, and it has been determined that
a patent on the invention shall be granted under the law.*

Therefore, this United States

Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America, or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 314 or (e)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). Maintenance Fee Notice on the inside of the cover.

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PATENT AND TRADEMARK OFFICE

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November 5, 2018

The President
The White House
Washington, D.C. 10500-0001

Dear Mr. President:

As Chairperson of the Patent Public Advisory Committee (PPAC) of the United States Patent and Trademark Office (USPTO), it is my honor and privilege to present to you the PPAC's Annual Report for FY 2018. This Annual Report sets forth our review and recommendations of the USPTO's patent policies, goals, performance and budget for FY 2018.

Highlights of our Annual Report include the PPAC:

a) Commending the President and Congress for extending: (i) the USPTO's fee setting authority until 2026 and recommending that this fee setting authority being made permanent to ensure that the USPTO is able to recover its costs and access to all future fee collections, regardless of any government-wide sequestration or other limitations; and (ii) The Telework Enhancement Act of 2010 (TEAPP), which permits examiners to work from remote locations so that a diverse and dynamic workforce is maintained, while preventing disruption to USPTO operations.

b) Recommending that the USPTO: (i) proceed with the fee adjustments it recently proposed for 2021, while taking into account stakeholder input so as to achieve reliability and certainty in U.S. patent rights and to ensure necessary and continued improvements in the USPTO's information technology systems; and (ii) manage expenditures and collections to significantly increase its operating reserve for patents to the recommended level of \$747 million equivalent to at least three months of operating requirements as soon as practical.

c) Recommending that the USPTO continue to invest and modernize its information technology systems to meet its goals of improving the reliability and certainty of patent rights and to support patent examiners in achieving and maintaining higher quality search and examination while helping to keep applicants' critical technical information secure from theft by private as well as state actors.

d) Applauding the USPTO's Patent Trial and Appeal Board's (PTAB) new initiatives regarding its processes and proceedings (e.g., Claim Construction Final Rules, Comments on Motion to Amend Practice, Assignments of Judges to Panels, Formation of Precedential Opinion Panel, Trial Practice Guide Update, etc.) and requesting that the PTAB continue to look for ways to improve such processes and proceedings so as to render well-reasoned decisions.

e) Recommending that the USPTO: (i) maintain and update current patent quality metrics for public access so that there is full transparency regarding its quality metrics and compliance data; (ii) develop tools and resources that will enable examiners to find and access the best, most relevant prior art at an early stage in the examination process; and (iii) track the investment made in terms of budget and other resources in quality-related projects for disclosure and discussion with the user community and the public.

f) Recommending that publication of a timeline and specific fiscal year targets for meeting the guarantees of the American Inventors Protection Act of 1999 (AIPA) to promote accountability within the USPTO, foster oversight of USPTO operations, and improve the perception of the USPTO as an efficient and fair government agency by the user community and the public.

g) Applauding the USPTO for designing and implementing the Diversion Pilot Program, which is a much-needed program for practitioners whose physical, mental, or emotional health issues (including substance or alcohol abuse) or law practice management issues resulted in minor misconduct before the USPTO and allowing them the ability to rectify such misconduct through participation in the Program.

h) Recommending that the USPTO study whether the intellectual property protection of plants should be solely within the jurisdiction of the USPTO, and not with the U.S. Department of Agriculture, in order to house all such intellectual property issues within the USPTO.

i) Supporting the USPTO's ongoing efforts as a leader in: (i) intellectual property policy discussions with other U.S. agencies as well as other counterpart governments and intellectual property offices; (ii) global patent work sharing programs, such as the Expanded Collaborative Search Pilots and the IP5 Patent Cooperation Treaty Collaborative Search and Examination Pilot, which aim to improve patent examination quality and efficiency; and (iii) outreach activities to bring subject matter experts to applicants around the United States in order to help applicants be better informed about ongoing international patent-related developments.

j) Continuing to recommend that the USPTO maintain independent control over the management and operation of its human resources, information technology and procurement functions and not expend USPTO user fees for start-up costs associated with the U.S. Department of Commerce's Enterprise Services organization.

The PPAC commends your appointment of Andrei Iancu as Under Secretary of Commerce and

Director of the USPTO during the past year and commends Director Iancu for his thoughtful and proactive leadership, which has enabled the PPAC to interact more effectively, efficiently and consistently with the employees of the USPTO. The PPAC further commends Director Iancu, the employees of the USPTO and the Patent Office Professional Association of the USPTO for their combined assistance, support, discussion and commitment over the past year and for their ongoing and extensive efforts to improve the patent system both nationally and internationally. We also look forward to the appointment of a Deputy Under Secretary of Commerce for Intellectual Property and Deputy Director of the USPTO to assist the Director in his extensive and far-reaching role of promoting and encouraging intellectual property protection globally.

As PPAC Chairperson, I was honored to be invited by Director Iancu to attend your signing of the 10th million patent in the Oval Office of the White House. Your commitment and support of our patent system only helps to reinforce that we, as a committee, remain dedicated and focused in keeping the USPTO on track and high-performing for our diverse stakeholder and user community, while at the same time, planning for the future of our patent system both nationally and internationally.

We greatly appreciate your commitment to the patent system and look forward to discussing with you any questions that you or your staff might have regarding this Report and the PPAC's activities during the past year or our planning for FY 2019.

Very truly yours,



Marylee Jenkins
Chairperson
Patent Public Advisory Committee
U.S. Patent and Trademark Office

Enclosure: Patent Public Advisory Committee Fiscal Year 2018 Annual Report

cc: The Honorable Charles Grassley, Chairman, Senate Judiciary Committee
The Honorable Bob Goodlatte, Chairman, House Judiciary Committee
The Honorable Dianne Feinstein, Ranking Member, Senate Judiciary Committee
The Honorable Jerry Nadler, Jr., Ranking Member, House Judiciary Committee
The Honorable Darrell Issa, Chairman, Subcommittee on Courts, Intellectual Property, and the Internet
The Honorable Hank Johnson, Ranking Member, Subcommittee on Courts, Intellectual Property, and the Internet
The Honorable Wilbur Ross, U.S. Secretary of Commerce
The Honorable Andrei Iancu, Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office
Andrew Hirshfeld, Commissioner for Patents

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I. INTRODUCTION

The Patent Public Advisory Committee (PPAC) thanks the United States Patent and Trademark Office (USPTO), and, in particular, Under Secretary of Commerce and Director of the USPTO, Andrei Iancu, as well as Joseph Matal, in his prior position as interim Director Performing the Functions and Duties of the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office, for their leadership, which has enabled the PPAC to interact more effectively, efficiently and consistently with the employees of the USPTO throughout the past year. Indeed, the employees of the USPTO have provided detailed and extensive information and access allowing the committee members to better understand the complex issues facing the USPTO and permitting constructive and detailed discussions of options, constraints, and upcoming USPTO initiatives for our consideration and comment. The PPAC thanks management and the employees of the USPTO as well as the Patent Office Professional Association of the USPTO for their combined assistance, support, discussion and commitment over the past year and for their ongoing efforts to improve the patent system both nationally and internationally. We look forward to our continuing work and interaction with the USPTO in the coming year.

II. FINANCE

In FY 2018, expenditures tracked closely to the planned levels while fee collections fell somewhat short of estimates. Operating reserves increased modestly but remained below the target minimum level and far below the optimal level.

The biennial fee review process that began in FY 2015 culminated with the institution of revised fees on January 16, 2018. The fee review process included the PPAC's fee setting hearing in November 2015 and the PPAC's subsequent report, the issuance of a "Notice of Proposed Rule Making" (NPRM) on October 3, 2016, and the publication of a final rule, "Setting and Adjusting Patent Fees during Fiscal Year 2017" on November 14, 2017 (Final Fee Rule). The PPAC notes, with appreciation, that the USPTO took into

account public input both in preparing the NPRM and in publishing the Final Fee Rule.

A next iteration of fee review began internally in FY 2017 and went public in FY 2018 with the USPTO proposing a variety of fee increases. The PPAC played its statutory role collecting stakeholder input including holding a public hearing on September 6, 2018, at the USPTO in Alexandria, Virginia. The House and Senate both approved H.R. 6758 the SUCCESS Act, on September 25th and October 12th respectively, which extends the USPTO's fee setting authority for eight years until 2026. At the time of the publication of this Report, the President had not signed this bill. The fee setting authority granted to the USPTO by the Leahy-Smith America Invents Act of 2011 (AIA) expired on September 16, 2018, although the fee setting review that began in FY 2018 was timely under the AIA and will continue.

Appropriations for FY 2018 were determined by a series of Continuing Resolutions until the enactment of the Consolidated Appropriations Act of 2018 on March 23, 2018. The Consolidated Appropriations Act appropriated \$3.50 billion for FY 2018 of which \$3.16 billion is allocated to patents, a 8.2% increase compared to FY 2017. The FY 2019 appropriation process has not been completed. The House and Senate issued Committee Reports in May 2018 recommending \$3.37 billion for the USPTO (including both patent and trademark operations) \$46 million less than proposed in the President's FY 2019 Budget Request. The USPTO provided its FY 2020 budget request to the Department of Commerce (DOC) to be submitted to the Office of Management and Budget (OMB) for internal review on September 10, 2018. The content of the budget request is not publicly available, but represents the USPTO's request as the Administration begins to construct the President's Budget, which is expected to be released in February 2019.

As was discussed in the FY 2017 PPAC Annual Report, the USPTO has been asked to participate in and support an Enterprise Services organization to provide shared human resources, information technologies, and procurement functions among multiple U.S. DOC agencies. The intention has been to drive efficiencies across the Department. However, the PPAC has significant concerns that the initiative will dilute the current

level of service provided by the USPTO to the patent user community. In a letter dated August 24, 2017, the PPAC expressed additional concerns that this initiative failed to recognize the USPTO's unique requirements and was furthermore in fundamental tension with its user fee funded model, which precludes diversion of patent fees for other purposes.

RECOMMENDATIONS

Adequate, stable funding and careful fiscal management are essential to achieving the USPTO's goals of reliable patent rights and acceptable pendency as set out in the draft 2018-2022 USPTO Strategic Plan that was released for public comment in August. The PPAC recommends the following:

The USPTO should continue to invest in critical IT capability. The recent interruption in online patent filing services from the USPTO's patent system outage highlights the necessity of continuing the upgrading and replacement of an antiquated patent system infrastructure. Meeting Director Iancu's goal of improving the reliability and certainty of patent rights will require IT upgrades to support examiners in achieving and maintaining higher quality search and examination. Furthermore, the USPTO will also have to invest to keep applicants' critical technical information secure from theft by private as well as state actors.

The USPTO should manage expenditures and collections to significantly increase its operating reserve for patents. The criticality of the operating reserve was demonstrated in January 2018 when appropriations lapsed causing a government shutdown. The USPTO was nonetheless able to continue operating through the shutdown due to its operating reserve funding. The operating reserve also helps assure that long term IT initiatives can remain funded through fluctuations in collections. Given the possibility of government shutdowns as well as the possibility of unpredicted variability in collections, a robust operating reserve is necessary. The operating reserve should rise to the recommended level of \$747 million equivalent to approximately three months of operating requirements as soon as practicable.

The USPTO should proceed forward with the fee adjustments it has proposed while taking into account stakeholder input as reflected in the PPAC's Fee Setting Report (attached herein as an appendix). Although the PPAC has critiqued individual proposed adjustments, it recognizes that the envisioned overall fee increase starting in 2021 is necessary to support the USPTO's Strategic Plan. The USPTO should move forward expeditiously with the rulemaking process to put the needed fee adjustments in place while continuing to communicate to the public about how additional revenue is necessary to achieve reliability and certainty in patent rights, necessary and continued improvements in the USPTO's IT systems, timely processing, and a robust operating reserve.

The PPAC continues to be wary of any initiatives to pool resources among DOC agencies for support functions. The USPTO should not be required to pay for and use services that are not optimal for its mission. Furthermore, the DOC should comply with the statutory constraints that preclude diverting patent user fees to purposes unrelated to patents (35 U.S.C. § 42(c)(3)) and require that the USPTO retain control over its operations (35 U.S.C. §1(a)).

III. PATENT TRIAL AND APPEAL BOARD

In FY 2018, the Patent Trial and Appeal Board (PTAB) has made notable changes to its processes and policies as a result of precedential decisions from the U.S. Supreme Court ("U.S. Supreme Court"), i.e., *SAS Institute v. Iancu*, and the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit"), i.e., *Aqua Products v. Matal*. In addition, the PTAB has made practice-changing improvements to its Standard Operating Procedures, SOP1, i.e., AIA panel assignment of PTAB judges, and SOP2, i.e., opinion designations; as well as issued guidance on a number of matters ranging from subject matter eligibility, amendment practice, trial practice, and conformance with *SAS* and *Aqua Products*. Significantly, the formation of the Precedential Opinion Panel, which will oversee issues of "exceptional importance", such as those involving agency policy or procedure, is a welcome change to the rather complicated process of designating precedential opinions of the past. The PPAC commends the PTAB for these changes

as they serve to assuage many stakeholders' concerns and complaints about the lack of predictability or transparency of the PTAB process.

RECOMMENDATIONS

The PPAC is optimistic that the PTAB's changes made in FY 2018 will advance the Director's and stakeholders' objectives of creating a more balanced system of vetting and securing quality patents. To this end, the PPAC encourages the PTAB to continue soliciting stakeholder feedback as often as possible and seek input from parties on both sides of the patent challenge so that it can measure its performance and compare outcomes before and after the implementation of these changes.

IV. PATENT QUALITY

In FY 2018, the USPTO took a collaborative approach with two new initiatives focusing on the shared responsibility of the USPTO and the patent applicant for the overall quality of the examination process. In the Diagnostic Interview Pilot, an examiner may request a pre-search interview with the applicant to better understand the claimed invention and scope of the claims in order to formulate a more focused search strategy. In the Application Readiness Study, the USPTO aims to assess attributes of incoming patent applications that improve the efficiency and effectiveness of the patent examination process. Using that information, the USPTO can educate the public on best practices in preparing patent applications for an efficient and effective examination.

In addition, the USPTO continued its efforts to improve prior art searching and sourcing. The USPTO made notable progress on the development of upgraded electronic search tools and the implementation of the IP5 Collaborative Search and Examination Pilot and other initiatives directed at making the best, most relevant prior art accessible to examiners early in the examination process.

The FY 2018 statutory compliance data shows strong compliance rates for allowances in all statutory compliance categories. The compliance rates for 35 U.S.C. § 101 were strong for all office action types. However, the 2018 external perception survey showed

that only about 26% of participants reported that rejections under 35 U.S.C. § 101 were reasonable in terms of correctness most of the time. The compliance rates for 35 U.S.C. § 103 were down from FY 2017 and fell short of the FY 2018 target for all office action types except allowances. In addition, only about 41% of the participants in the 2018 external perception survey reported that rejections under 35 U.S.C. § 103 were reasonable in terms of correctness most of the time.

RECOMMENDATIONS

The user community and patent owners are concerned with the high rate of issued patent claims that are later found to be unpatentable by the PTAB. During reviews of applications in-process, the Office of Patent Quality Assurance (OPQA) performs searches of the prior art and analyzes whether the examiner has found all of the relevant prior art. However, with respect to new relevant prior art presented in the PTAB proceeding to challenge the validity of patent claims, the PPAC recommends that the USPTO should retrospectively analyze whether, during the examination phase, examiners found that particular prior art. If the determination is that all of the relevant prior art was not found by or provided to the examiner, the USPTO should investigate why. In addition, the PPAC recommends that the USPTO define a trackable quality metric that provides an in-process measure of the extent to which the examiners had before them all of the relevant prior art at particular points in the examination process, such as before issuing the first office action and before an allowance. Without this analysis, it will be difficult to close the gap between the claims that are issued by examiners and those that are found to be unpatentable by the PTAB.

Many of the initiatives directed to improving the prior art searching conducted by examiners and the accessibility of relevant prior art to examiners at the outset of examination are collaborative, cross-functional projects within the USPTO. The PPAC recommends that the USPTO continue to leverage all relevant functions to develop improved tools and resources that will enable the examiners to find and/or access the best, most relevant prior art at an early stage in the examination process.

During the November 9, 2017, public PPAC meeting, the USPTO previewed a new interface for displaying quality metrics data in the Patent Data Visualization Center. As of the end of FY 2018, the new interface has not yet been rolled out. The last time the quality data was updated on the USPTO Patent Data Visualization Center was FY 2015. No data on quality metrics for FY 2018 was shared with the public until the fourth quarter, when the External Quality Survey data was presented in the public PPAC meeting. The PPAC recommends that the USPTO maintain and update current patent quality metrics for public access on the USPTO website so that there is full transparency to the public regarding the quality metrics and compliance data.

In FY 2018, the PPAC began to explore ways in which to quantify the return on the significant investments the USPTO makes every year in quality initiatives. The PPAC recommends that the USPTO undertake this analysis in earnest, beginning with tracking the investment made in terms of budget and other resources in at least those quality-related projects that are expected to produce results that are measurable in one or more aspects. Without access to current quality data or information on the level of resources allocated to the quality initiatives, external stakeholders have been expressing increasing concern over whether or not the investments made by the USPTO have resulted in any actual or noticeable improvements.

Finally, the PPAC recommends that the USPTO leverage its growing database to analyze the compliance data for rejections made under 35 U.S.C. § 101 as it continues its efforts to bring further reliability and predictability to subject matter eligibility determinations.

V. INFORMATION TECHNOLOGY

There are two faces to what takes place within IT at the USPTO, with the agency personnel seeing and using a different set of IT functions than what the public sees. In the last year, the Patent Examining Corps received and put into use new examining tools and they have received very positive reviews. Such IT improvements bode well for the mission of issuing quality patents.

However, there is a less than positive image seen by the public when the USPTO IT systems are accessed. For example, it is difficult to reconcile fee increases with the recent patent system outages, slow access times on PAIR data, and erroneous messages that are given to public users. The user community rightly expects that patent data will be readily accessible and also be accurate; these are not unrealistic expectations. In that vein, there is both a need for system improvements to continue and for the retirement of the legacy systems. It is felt that these two actions will improve response times and increase system stability, both of which the public users must be able to realize.

An example of a planned improvement is the PE2E Patent Center project that is the planned EFS-Web & Private PAIR Replacement that includes continuing to migrate to RBAC solution (MyUSPTO accounts) as replacement to Entrust PKI certificates. As of October 1, 2018, the USPTO opened the new authentication migration tool to the public users to allow applicants to link PKI certificates to USPTO.gov accounts. In early November 2018, the public will have access to the new sponsorship tool that will provide applicants using the Patent Center a new functionality for additional filing. Benefit includes saving time by granting access to multiple USPTO systems with one consolidated sign-in and ensures USPTO compliance with the latest Federal Information Security Management Act (FISMA) requirements.

The importance of this “public face” cannot be overemphasized. For many members of the public, the USPTO IT system is both the primary and first means of interaction with the agency. It is key that such interactions paint a positive image and experience for users with the USPTO.

RECOMMENDATIONS

The PPAC recommends that the agency continue its search for a leader for the IT group. The agency has been functioning with interim leadership in this position. The interim personnel have functioned well, inheriting many projects that were already in progress. However, the PPAC is also of the opinion that the IT group needs a permanent Chief Information Officer (CIO), given the rapid transition of technology and

the desire for the USPTO to be the leader among the intellectual property offices throughout the world.

The PPAC further recommends that the USPTO continue its investment in, not only in upgrading of the USPTO IT capabilities, but also upgrading so that these capabilities are “ahead of the curve,” as opposed to functioning in a “catch up” mode.

The PPAC is of the opinion that the USPTO’s leadership should prioritize the various projects that have been undertaken, so as to insure that the timing of software releases and upgrades fits with the overall mission of the USPTO, that being the timely examination and delivery of quality patents.

A final PPAC recommendation relates to USPTO IT metrics. The USPTO needs to understand the reasons for changes in patent system demands by public users. Improvements in the USPTO IT system performance need to be measured, as do strains on the system. For example, given an increased usage of public PAIR, how can we meaningfully measure successful sessions on the site? How many user sessions over a given period of time and what types of queries may effect performance? Only when an accurate assessment of current IT performance is made will the USPTO have the ability to measure improvements such performance.

VI. PATENT PENDENCY

During the past year, the USPTO once again received a steady volume of new utility, plant, and reissue (UPR) filings and reduced the backlog of unexamined UPR filings in its inventory. As of July 31, 2018, the volume of new UPR filings is on pace to meet the volume of last year. The PPAC views the receipt of a steady volume of new UPR filings year over year as indicative of public support of the USPTO and recognition of the value of a U.S. patent. Also, as of July 31, 2018, the backlog of unexamined UPR filings is on pace to be reduced to about fifteen months’ worth of new UPR filings. The PPAC considers a backlog at this level to be an exemplary working inventory for the USPTO. The PPAC commends the USPTO for reducing its backlog to this level.

Similarly, the USPTO once again made significant progress on reducing patent pendency on average. Historically, the USPTO measures patent pendency by average statistics across the Office and sets annual pendency reduction goals for itself in terms of these average statistics. These average statistics include first action pendency and traditional total pendency. First action pendency measures the average number of months from the filing date of an application to the mailing date of a first office action, and traditional total pendency measures the average number of months from the filing date of an application to the date of final disposal (i.e., issue as a patent or abandonment). As of July 31, 2018, the USPTO is on track to meet or exceed its FY 2018 goals of reducing first action pendency and traditional total pendency to 15.4 and 25.0 months, respectively. The PPAC applauds the USPTO for this achievement.

Also, the USPTO made slight but meaningful progress on reducing patent pendency in absolute terms. More specifically, the American Inventors Protection Act (AIPA) guarantees each application a prompt examination by the USPTO that meets several requirements, including 14 months from the filing date of an application to the mailing date of a first office action and 36 months from the filing date of an application to the issue date of a patent. The AIPA guarantees are absolute per application guarantees, not average statistics. As of July 31, 2018, the USPTO's performance on meeting the guarantee of 14 months to first action is on track to be flat compared to last year (for an overall compliance rate of 44%), while the USPTO's performance on meeting the guarantee of 36 months to final disposal is on track to improve by 2% compared to last year (for an overall compliance rate of 84%). The PPAC again commends the USPTO for this achievement.

Unfortunately, in spite of this progress, the USPTO continued to experience wide variations in average pendency across technology centers and wide variations in absolute pendency across applications. For example, the average statistic of first action pendency varied across technology centers from a low of 11.3 months to a high of 19.6 months as of July 31, 2018, and the absolute timing of first office actions varied from as early as 1 month or less to as late as 133 months after filing as of July 31, 2018. Wide variations like these in the timing of examination, whether measured in average or

absolute terms, create the perception of inefficiency and unfairness among the applicant community and the public, regardless of the progress that the USPTO makes on reducing pendency.

RECOMMENDATIONS

The PPAC recommends that the USPTO develop and implement a plan for meeting both the 10/20 goals and the AIPA guarantees. To this end, the PPAC recommends that the USPTO develop a specific plan for improving compliance with the AIPA guarantees, similar to its plan for meeting the 10/20 goals. The plan should include a timeline for reaching full AIPA compliance and fiscal year targets for steady improvement in the interim. For example, the fiscal year targets should be tied to percentages of applications that were examined in compliance with the AIPA guarantees, with the final target being in the range of 95% or greater. Additionally, the fiscal year targets should be met across the Office and within each technology center. The PPAC recommends that the USPTO develop and implement the plan as soon as practicable, preferably during FY 2019.

Also, the PPAC recommends that the USPTO publicize its plan for achieving full AIPA compliance and solicit public comment on it. In this regard, the PPAC recommends that the USPTO explicitly commit to improving compliance with the AIPA guarantees in its upcoming FY 2018-2022 Strategic Plan. Additionally, the PPAC recommends that the USPTO publicize its performance on meeting the AIPA guarantees on an equal footing with its performance on meeting the 10/20 goals. For example, the PPAC recommends that the USPTO publish its performance on meeting the AIPA guarantees side by side with its performance on meeting the 10/20 goals in all pertinent sections of future Performance and Accountability Reports (PAR), such as the Financial and Related Highlights table or equivalent thereof showcasing performance highlights and appearing on the front page of the PAR. The PPAC believes that publication of a timeline and specific fiscal year targets for meeting the AIPA guarantees will promote accountability within the USPTO, foster oversight of USPTO operations, and improve the perception of the USPTO as an efficient and fair government agency by the applicant community and the public.

VII. SELECT ISSUES FACING PRACTITIONERS AND THE PATENT RIGHT

The PPAC Special Projects committee is charged with looking into issues that affect the patent right and practitioners appearing before the USPTO. This year, the PPAC looked into several matters including, the following:

- **The Office of Enrollment and Discipline**

In November 2017, the Office of Enrollment and Discipline (OED) launched a two-year Pilot Diversion Program (Diversion Program) to offer a first-of-its-kind non-disciplinary alternative to those practitioners who have engaged in minor misconduct where the practitioner may be suffering from an addiction, health or negligent management issue. The OED's Diversion Program is based on those implemented by numerous state bar regulators, but the OED is the first and only disciplinary authority to provide an innovative and non-disciplinary alternative to a nationwide constituency of both attorneys and non-attorneys (patent agents) who practice before a Federal agency. Diversion allows a practitioner who has engaged in minor misconduct to take remedial steps to improve his or her mental or physical well-being or to resolve a minor practice deficiency, such as failure to adequately manage his or her docket.

- **Supplemental Examination**

Supplemental Examination is patent post-grant proceeding, which became available on September 16, 2012, as a result of new section 257 of Title 35, United States Code, as part of the AIA. The PPAC met with the Central Reexamination Unit (CRU) to better understand how the user community was taking advantage of this new tool and whether it has had a significant impact on the protection of the patent right after issuance.

Supplemental examination has been little used to date. Simply stated, the user community is not taking advantage of this new tool. From FY 2013 to FY 2017, a low of 34 and a high of 59 requests were annually filed.

- **Design Patents**

The PPAC gained insights this last fiscal year into the increased filings of design patent

applications and the increased workload of Technology Center (TC) 2900, where design patent applications are examined. Because of the recent increase in filings, and subsequent hiring, the TC has fewer primary examiners and more junior examiners as a percentage of its workforce than the other TCs.

- **Plant Patents**

Plant patents are provided pursuant to 35 U.S.C. §§ 161-164. Within the USPTO, plant patents are examined in TC 1600, Art Unit 1661. The entire unit consists of one director, one supervisory patent examiner, and seven patent examiners. From FY 2013 to FY 2017, plant patent filings have ranged from about 1,100 to just over 1,300 per year.

Pending legislation has the possibility to affect subject matter that could be plant patented. In the 2018 Farm Bill (H.R. 2), it is proposed to widen the scope of the Plant Variety Protection Act (PVPA) (which offers the PBR certificate, distinct from patents), administered by the U.S. Department of Agriculture's Plant Variety Protection Office (PVPO), to include asexually propagated plants. At present, the PVPA only allows for sexually reproduced plant varieties to be protected. If enacted this new right, administered by the PVPO, would compete with the patents issued by the USPTO under 35 U.S.C. § 161. The USPTO expects a small impact, financially or otherwise, from such a change if enacted into law.

- **Third-Party Submissions**

The PPAC inquired whether third-party submissions are being used by the user community and whether such submissions are helpful to examiners. Since September 16, 2012, the USPTO has received over 7,000 submissions. More than 5,600 submissions were deemed proper and more than 1,600 were deemed improper. Submissions were deemed improper mainly due to the inclusion of improper opinions/comments and format inaccuracies, all of which were eligible for revision and resubmission.

In a February 2018 review of the proper submissions, over 18,000 documents had been submitted to date. Over 2,240 unique submitters were identified and on average, approximately three pieces of prior art were provided in each submission.

The Office recently conducted a survey of 720 sampled applications where a third party submission had been considered by an examiner. Of these, 305 applications contained at least one office action and utilized at least one piece of submitted prior art.

RECOMMENDATIONS

The PPAC applauds the OED for designing and implementing the Diversion Program. The program is much needed and shows a compassionate and innovative approach to practitioners who might otherwise lose their livelihood due to a health issue or management oversight. The PPAC recommends that the OED continue its outreach program and expand its visibility by attending conferences and otherwise educating the practitioner community on the Diversion Program. Along these lines, the PPAC suggests that the OED develop an explanation of the Diversion Program that can be sent to all practitioners facing discipline so that they are aware of the program.

The PPAC commends the USPTO's procedures for handling these Supplemental Examination requests in a timely manner. The CRU has been handling this new procedure in a very timely manner. This is a great benefit to a patent owner who wants to protect their patent and better define its scope in a timely manner to potentially enforce the patent right against alleged infringers. The expeditious handling of these procedures also furthers the Director's goal of creating more certainty of the patent right.

The PPAC questions why Supplemental Examination is so rarely used when it helps to protect the patent right and potentially create more certainty as to its enforceability. To this end, the PPAC recommends that the Commissioner for Patents study the use of this new procedure and examine why it is rarely used. For example, it may not be as beneficial to patent owners as intended or it may not be well known to the user community. In such event, possibly more outreach regarding the potential benefits of

Supplemental Examination or legislative changes to make it a more attractive option to patent owners may be warranted.

The challenges faced by the design technology center include a heavy training burden teaching, coaching, and mentoring the junior examiners. Primary examiners help to train and review work products. This means the senior examiners are spending less of their own time examining cases and senior examiners have high production goals. As a result, senior examiners are not fully contributing to reducing the unexamined applications inventory. This will, of course, change in the future as the junior examiners are promoted.

The inventory of pending cases is a concern and the TC is working towards handling these cases in a timely manner. The Hague filings also consume resources. The PPAC commends the work and planning done to date by TC 2900. We believe that the TC is taking adequate steps to reduce the unexamined applications inventory and suggests that the Director commit adequate resources to this endeavor.

The PPAC recommends that the USPTO study whether the intellectual property protection of plants should be solely within the jurisdiction of the USPTO (not the U.S. Department of Agriculture) to house all such intellectual property issues under one agency, specifically within the USPTO.

The PPAC recommends that the USPTO conduct a more comprehensive review of third-party submissions to determine whether the submissions are valuable to examiners and whether the submissions enhance the quality of issued patents.

VIII. INTERNATIONAL COOPERATION, WORK SHARING, POLICY DEVELOPMENT AND OUTREACH

The PPAC supports the extensive efforts made by the USPTO this year in its international cooperation, work sharing, policy development and outreach work. A specific example of the USPTO's international work is the extensive policy advice and technical expertise provided on domestic and international intellectual property matters to federal agencies in the new administration, including the Office of the United States Trade Representative (USTR), the Office of the U.S. Intellectual Property Enforcement Coordinator, and other bureaus of the DOC.

Another example is the USPTO IP Attaché Program, which expands the Office's ability to improve intellectual property systems internationally for the benefit of U.S. stakeholders by serving at U.S. embassies, consulates, and missions worldwide to seek improvements in laws and regulations, educate host government officials on intellectual property matters and to build grass- roots support for U.S. policy positions.

The PPAC also supports the outreach conducted by the USPTO regarding international issues. For example, the China Roadshows provided a meaningful opportunity for U.S. applicants to become better informed about the opportunities and hazards with respect to obtaining and maintaining intellectual property protection and enforcement in China.

RECOMMENDATIONS

The PPAC supports the USPTO's current efforts in leading policy discussions with counterpart governments and Intellectual Property Offices in various fora including at the WIPO Standing Committees. The PPAC further supports the USPTO's participation in work sharing programs, such as the Expanded Collaborative Search Pilots (CSP) and the IP5 Patent Cooperation Treaty Collaborative Search and Examination Pilot (PCT CS&E), which aim to improve patent examination quality and efficiency. Additionally, the PPAC supports the outreach activities of the USPTO and encourages the USPTO to continue to bring subject matter experts to applicants around the United States in order to help applicants be better informed about ongoing international patent-related

developments.

With respect to the USPTO's advisory role in the development of intellectual property policy in trade agreements, the PPAC requests additional and regular updates to the stakeholder community with respect to the particular areas of intellectual property concerns in such agreements to determine their effects on international business matters.

With respect to the USPTO's participation in work sharing programs for patents, the PPAC supports such activities and encourages the USPTO to monitor measurable outcomes and provide regular reporting on such programs.

With respect to intellectual property issues involving China, the stakeholder community has been actively following the implementation of tariffs on certain goods and the allegations of intellectual property theft by China entities as detailed in the Special 301 Report of the USTR dated March 22, 2018. Due to the importance of this subject, the PPAC recommends additional information be provided to the stakeholder community with respect to this important matter.

IX. LEGISLATION

To date, Congress has not advanced any substantive patent law-related legislation during the 115th Congress (2017-2018). However, various patent issues were addressed in hearings conducted by the House and Senate Judiciary Committees and were the subject of several introduced bills.

A wide range of patent issues was discussed at USPTO Director Iancu's nomination hearing in November 2017. His nomination was unanimously approved by the Senate Judiciary Committee in December 2017 and subsequently approved unanimously by the full Senate in February 2018.

Soon after, Director Iancu provided testimony and responded to questions at a Senate Judiciary Committee oversight hearing on the USPTO in April 2018 and at a similar House Judiciary Committee hearing in May 2018. Issues discussed at the oversight

hearings included the current state of patent subject matter eligibility (Title 35, Section 101), patent quality and pendency, the conduct of, and standards for, PTAB post-grant review proceedings, China intellectual property concerns, workforce management at the USPTO, promoting diversity in STEM fields and intellectual property protection provisions in international trade agreements.

On March 20, 2018, the House Judiciary Subcommittee on Courts, Intellectual Property and the Internet conducted a hearing captioned “Assessing the Effectiveness of the Transitional Program for Covered Business Method Patents.” The hearing focused on the transitional program for covered business method patents, administered by the USPTO’s PTAB, the GAO’s recent assessment of that program and arguments for and against extension of the program. Other hearings, including two at the House Small Business Committee, also addressed intellectual property-related issues.

Various substantive patent law-related legislation was introduced during the 115th Congress (2017-2018), and are summarized later in this Report. The PPAC actively reviews and advises the USPTO on proposed legislative and administrative changes, including those aimed at patent eligibility, patent quality issues and potentially abusive patent assertion activities, as well as other adjustments to the patent laws and the USPTO’s fee setting authority. The PPAC will continue to monitor and consult with the USPTO on any such changes.

The PPAC is pleased that the John S. McCain National Defense Authorization Act for Fiscal Year 2019 was signed into law on August 13, 2018. The Act includes a provision that extends the USPTO’s authority to conduct a telework program pursuant to the Telework Enhancement Act of 2010 (TEAPP). The PPAC recognizes that TEAPP, and telework in general, has been very successful as a business strategy for the USPTO. It has allowed the USPTO to build the professional workforce it needs to execute its mission, limit real estate expenses and generally be more productive.

The PPAC is pleased that Congress extended the USPTO’s fee setting authority granted by AIA, which includes the important role that the PPAC plays in soliciting

public feedback on proposed adjustments. Congress extended the USPTO's fee setting authority until September 16, 2026 by passing the Study of Underrepresented Classes Chasing Engineering and Science Success (SUCCESS) Act of 2018, which was signed into law in mid-October 2018.

RECOMMENDATIONS

The PPAC recommends that the USPTO continue to engage decision makers and other stakeholders to help ensure that any proposed legislative or administrative changes are appropriately crafted and narrowly targeted without adversely affecting the overall patent system. To that end, the USPTO should consider the effect of such changes in terms of balance and fairness to all stakeholders, the efficient operation of the examination process, the quality of patents issued, and the overall costs and burdens to patent owners and other participants in the patent system. The PPAC also recommends that the USPTO stay abreast of potential suggested legislative changes regarding patent subject matter eligibility (35 U.S.C. § 101) and the conduct of PTAB post-grant review proceedings.

While the PPAC is pleased that Congress extended the USPTO's fee setting authority until 2026, the PPAC urges the USPTO to continue to work within the Administration and with Congress to make this authority permanent to ensure that the USPTO continues to be able to recover its costs and access to all future fee collections, regardless of any government-wide sequestration or other limitation(s).

The PPAC wishes to note that the USPTO's IP Attaché Program is an important element of the USPTO international outreach efforts. There is a concern that the USPTO IP Attachés do not have adequate access to their foreign government counterparts. The PPAC supports raising the current mid-level rank of the USPTO IP Attachés by one level (from First Secretary to that of Counselor), which would give the USPTO IP Attachés greater access to senior host government officials, to the Ambassadors at their respective embassies, and to senior industry representatives, and supports consideration of other reasonable changes to allow the IP Attachés to more effectively accomplish their mission.

I. FINANCE**A. INTRODUCTION**

The USPTO operates as a user fee-funded agency within the federal government. The agency is entirely funded by fees collected from its users. By statute, these fees cannot be diverted to other needs in the government. However, the USPTO's spending of its users' fees is nonetheless subject to the federal appropriation process as controlled by Congress. If the USPTO collects money in excess of its appropriations, the money accumulates in the Patent and Trademark Fee Reserve Fund. When permitted by language in the annual appropriations bill, these funds can be made available for spending after a reprogramming notification is sent to and approved by the House and Senate Appropriations Committees. If USPTO spending in a given year is less than both its appropriation level and its actual fee collections, that money accumulates in the operating reserve and is available in the future.

B. BUDGET STATUS

In FY 2018, the USPTO's budget was set by Continuing Resolutions passed on September 8, 2017, December 8, 2017, December 22, 2017, January 22, 2018, and February 9, 2018, and the Consolidated Appropriations Act that was passed into law on March 23, 2018. The full year appropriation provided the USPTO the authority to spend \$3.50 billion of FY 2018 collections on both patent and trademark operations, comparable to the FY 2017 appropriated level of \$3.23 billion. The USPTO allocated \$3.16 billion of its total appropriation to patents. As of the fiscal year end, the USPTO collected \$3.01 billion in patent fees and earned \$37.0 million in other income allocated to patents.

The USPTO provided input to the FY 2019 President's Budget that was released in February. The President's Budget assumes estimated total fee collections of \$3.42 billion with patent fee collections of \$3.07 billion. The House and Senate Appropriations Committees issued committee reports in May 2018, recommending \$3.37 billion for total

expenditures, \$46.4 million less than proposed in the President's Budget.

The FY 2019 President's Budget also provides for hiring 390 examiners, 50 more than expected attrition. Also, notably, the FY 2019 President's Budget decreases investments in IT supporting patent operations from the peak spending level in FY 2018 while continuing development and deployment of new IT capabilities. The decrease is in large part due to the completion of upgrades in laptops and other infrastructure and does not reflect a reduced commitment to modernizing the software that supports patent operations. As of this writing, a full-year appropriations act for the Department of Commerce for FY 2019 has not been enacted into law and the USPTO's appropriation is governed by the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019, which funds operations through December 7, 2018. In September 2018, the USPTO submitted its input for the FY 2020 President's Budget. The proposed FY 2020 budget will be publicly available in February 2019.

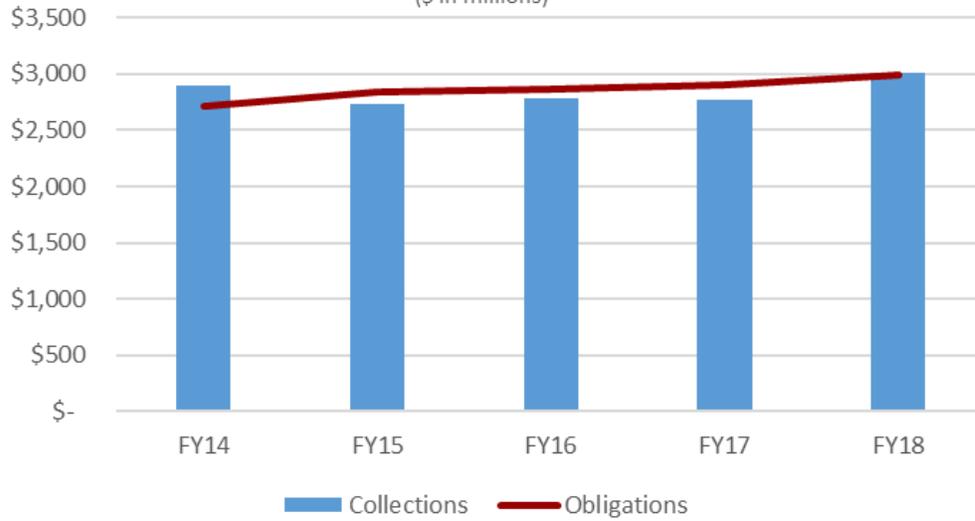
C. FY 2018 IN REVIEW AND HISTORICAL TRENDS

The FY 2019 President's Budget projected FY 2018 fee collections of \$3.09 billion and budgetary requirements of \$3.11 billion

FY 2018 patent fee collections were \$3.01 billion representing a 2.7% decrease compared to projected levels. FY 2018 patent expenditures were \$2.99 billion, very close to the forecast level of \$3.11 billion. Although the variability in fee income bears further attention and analysis, overall both collections and expenditures tracked closely to plan.

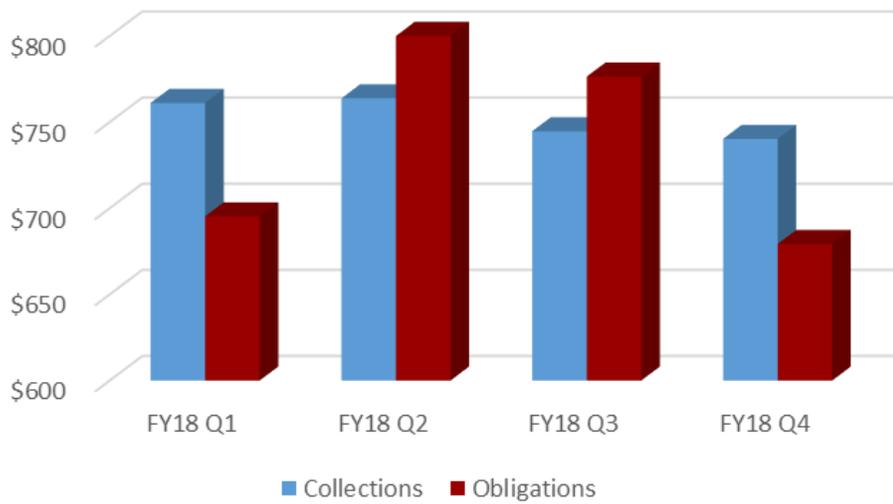
Historical Patent Collections and Obligations

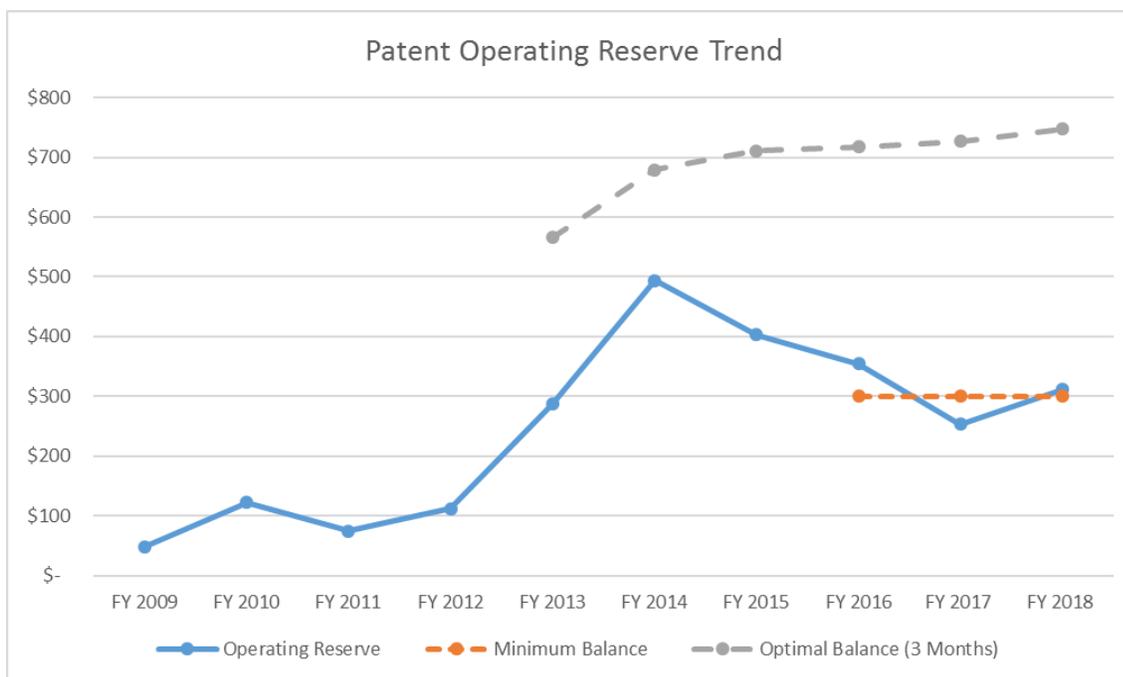
(\$ in millions)



Quarterly Patent Collections and Obligations

(\$ in millions)





Patent fee collections grew in FY 2018 to a record level after a modest decline in FY 2017. The previously planned fee increase implemented in January contributed to the increase in revenue although revenue did not grow quite as much as forecasted. The \$83.98 million shortfall compared to forecast was due to somewhat lower than expected RCE filings, maintenance fee, post-allowance, and AIA trial payments expenditures grew in line with projections. Since expenditures were less than the appropriated level, the USPTO was able to modestly replenish the patent operating reserve to \$312 million. The operating reserve ended the year slightly above the minimum recommended level of \$300M, but remains far below the optimal level of \$747 million, or three months of operating requirements.

D. FEE ADJUSTMENT

The Chief Financial Officers Act of 1990 requires the USPTO to conduct fee reviews, on at least a biennial timeframe. The review that began in FY 2015 culminated in the fee increase that was implemented in January 2018. This fee increase was necessary to maintain improvements in pendency, continue investments in IT, and prevent further erosion in the operating reserve. While carrying out its original intention to raise fee

income, the USPTO made significant adjustments based on public input. In preparing the “Notice of Proposed Rulemaking” of November 3, 2016, the USPTO took into account the PPAC’s input and reduced the magnitude of RCE fee increases. In the final rulemaking, the USPTO moderated proposed increases in filing fees for plant patents, design patents, and appeals.

The next biennial fee review began in FY 2017 with internal analysis at the USPTO of the agency’s long term financial picture. The USPTO proposed revised fees in a communication to the PPAC in August 2018. The PPAC then played its statutory role, holding a public hearing on September 6, 2018 to collect public input and then issuing a report (attached here as an appendix) in October 2018. The next step will be the administrative rulemaking process including the issuance of a “Notice of Proposed Rulemaking” (NPRM), the collection of further public input, and then the issuance of a final rule setting the revised fees. The projected date for implementing the fee increase is January 2021.

The initial USPTO proposal includes a fee increase. The justifications for the proposed fee increase include improving reliability and certainty of patent rights, modernizing IT systems, achieving optimal examination times, and restoring the operating reserve to a healthy level. The overall approach is based on aligning aggregate revenue with aggregate costs while continuing to subsidize filing search, and examination to maintain a low barrier to entry for the U.S. patent system. The fee proposal also provides incentives for electronic filing in the format preferred by the USPTO and a new system of fees and continuing legal education (CLE) for patent practitioners.

II. PATENT TRIAL AND APPEAL BOARD

A. INTRODUCTION

FY 2018 closes with the PTAB focused on addressing a number of stakeholder concerns regarding procedures before the PTAB, AIA panel assignments and composition, complying with recent Federal Circuit and U.S. Supreme Court decisions, and its continuing commitment to reduce the overall inventory (across technologies) and the pendency of appeals. Specifically, in an effort to better inform stakeholders of the PTAB's procedures in areas of particular interest, the PTAB published three studies on its website covering: (1) AIA trial results for Orange Book-listed patents (i.e., patents that the U.S. Food and Drug Administration have approved and deemed both safe and effective for the general public's use); (2) motions to amend; and (3) expanded panels. Also, in September, the Board revised its Standard Operating Procedures 1 and 2 concerning the formation of a new Precedential Opinion Panel (POP), the process for assigning or replacing judges to AIA panels, procedures for designating or de-designating AIA decisions, and more hands-on involvement by the Director in setting USPTO policy.

Moreover, in the wake of two opinions, one from the Federal Circuit and the other from the U.S. Supreme Court, the PTAB issued guidance for stakeholders on how the agency planned to apply the Federal Circuit's *Aqua Products, Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017), and the U.S. Supreme Court's *SAS Institute v. Iancu*, 584 U.S. ___, 200 L.Ed2d 695 (2018). In *Aqua Products*, the Federal Circuit held that the patent owner does not bear the burden of persuasion of showing that substitute amended claims are patentable. In *SAS*, the U.S. Supreme Court ruled that the PTAB must institute all petition challenges or no challenges in IPR proceedings. As discussed in more detail below, the PTAB's guidance provides that it will determine whether substitute claims are unpatentable by a preponderance of the evidence based on the entirety of the record, including any opposition made by the petitioner. The guidance, however, does not go so far as shifting the burden of persuasion on the challenger to show the amended claims are unpatentable.

Additionally, in response to the Director's mandate to streamline the free flow of information between the PTAB and the Office of the Commissioner for Patents (OCP), PTAB and the OCP will collaborate to find and implement solutions and training programs for examiners on *ex parte* matters, for the overarching purpose of improving overall patent quality. Further, the PTAB anticipates collaboration with the OCP on two studies into: (1) parallel proceedings involving AIA trials, reexaminations, and/or reissues; and (2) AIA trials where the petitioner raises the same or substantially the same prior art as presented during prosecution before the examiner.

Looking ahead, the PTAB is also considering a change to the claim construction standard to be applied in AIA trial proceedings, moving from the "broadest reasonable interpretation" to the "Phillips" standard used by the federal courts and the International Trade Commission (ITC). Lastly, the PTAB has released an update to the AIA Trial Practice Guide in August 2018 (the TPG) to provide more guidance to practitioners on certain aspects of AIA trials such as the use of sur-replies, motions to exclude, and live witness testimony at oral hearings. All these changes reflect a welcome evolution of practice before the Board that should streamline processes, increase patent quality, and improve the transparency and predictability of its proceedings.

B. EX PARTE APPEALS

The PTAB has continued to steadily reduce the inventory of *ex parte* appeals from 13,044 at the end of FY 2017 to 11,767 as of July 31, 2018. Click here to view [the PTAB's presentation](#) through July 2018.

Additionally, the average pendency of appeals has decreased from an average of 18.4 months at the end of FY 2017 to 14.9 months as of July 31, 2018.

As of June 30, 2018, pendency for a business method appeal is less than 20 months (a reduction of 7 months since mid-2017), while there has been no change in the pendency of an electrical appeal, which then and now remains at just above 11 months.

C. THE PTAB – PATENTS COLLABORATION

On the Director's mandate, the PTAB and the OCP are collaborating to improve patent quality through opening the flow of pertinent information common to both the PTAB and the OCP and improved communications between the two divisions. The collaboration has identified two areas of review. First, they will examine the number, type, and stage of parallel proceedings pending before the Office in the form of AIA trials, reexaminations, and/or reissues. Second, they will focus on the frequency and scope of when petitioners raise the same or substantially the same prior art in an AIA trial as previously presented to the Office during prosecution of a challenged patent. In addition to improving the overall quality of patents, information gathered from these exercises should assist both the PTAB and the OCP to better understand how stakeholders are using proceedings in the Office and the PTAB.

D. AIA TRIALS

1. The Filing Rate for AIA Trial Proceedings

The number of AIA trials has leveled off from FY 2017 to FY 2018 hovering under 2,000 petitions filed per year (1,901 total petitions filed in FY 2017 and 1,317 total petitions filed as of July 31, 2018). The number of filings per trial type similarly has leveled off with the largest number of filings for *inter partes* reviews (1,235 as of July 31, 2018 compared to 1,812 in FY 2017). Click here to view [AIA Trial Proceedings Statistics, July 2018](#).

2. AIA Institution Rates

The institution rate of AIA trials has consistently decreased year-over-year from the all-time high of 87%. As of July 31, 2018, the institution rate was 60%.

3. Patent Decision Count to Date

Since the PTAB began conducting AIA trials through July 31, 2018, it has issued a total of 2,268 final written decisions, wherein approximately 20% of the cases had no claims

held unpatentable; 16% of cases had some claims held unpatentable; and about 65% of the cases had all claims held unpatentable.

E. 2018 STUDIES AND PTAB'S FINDINGS

In FY 2018, the PTAB completed and published results for three studies, examining: (1) the results of AIA trials for patents listed in the FDA's Orange Book; (2) the frequency and outcome of motions to amend; and (3) the occurrence and result of expanded panel decisions.

1. Orange Book-Listed Patent Study

In the "[Orange Book Listed Patent Study](#)," the PTAB reviewed the status of all completed AIA trials filed against patents listed in the FDA's Orange Books as of the end of FY 2017. The PTAB found that the trial institution rate for Orange Book listed patents was comparable to that of challenged patents in general -- 66% for Orange Book listed patents versus 68% for challenged patents overall. Additionally, the PTAB found that more than half of the final written decision held all challenged claims in Orange Book listed patents patentable, and that 83% of petitions challenging Orange Book listed patents were unsuccessful.

2. Motions to Amend Study

The July 2018 Installment 4 of the "[Motions to Amend Study](#)" found that patent owners have filed more motions to amend in FY 2018 than in any other fiscal year to date. It is too early to determine the extent to which the Federal Circuit's decision in *Aqua Products* impacted, if at all, motion to amend filings, and the PTAB will continue to collect data for future reporting.

Of the 3,203 trials that have gone to completion or settled, patent owners sought to amend the claims in 305 trials (with 56 more motions to amend pending in on-going trials), and of those completed trials, the PTAB ultimately decided the merits in 189 trials. In the remaining 116 completed trials, the motions to amend were not decided because the trial terminated prior to a final written decision, requested solely to cancel

claims, or were rendered moot because the PTAB did not find the original claims unpatentable.

Of the 189 motions to amend that the PTAB decided, the PTAB granted or granted-in-part 18 motions. For 160 of the 182 motions denied or denied-in-part, the PTAB determined that the proposed amended claims did not satisfy at least one statutory requirement of patentability—akin to an examiner rejecting a proposed amended claim because it is anticipated, obvious, not adequately disclosed in the written description, indefinite, or directed to non-statutory subject matter—or found that the patent owner failed to satisfy the statutory requirements for a motion to amend under 35 U.S.C. § 316(d). For the remaining 22 motions, the PTAB denied on procedural grounds related to the regulatory requirements for a motion to amend.

3. The Expanded Panel Study

In response to stakeholder concerns about the lack of predictability or apparent arbitrariness concerning AIA proceedings, the PTAB's updated its Standard Operating Procedures, [Standard Operating Procedure 1](#) ("SOP1", Rev 15, Sept. 20, 2018), to assuage concerns about how judges are assigned to cases, removed from cases, or why panels were expanded.

Additionally, in March of this year, the PTAB shared the results of its "[Expanded Panel Study](#)." Statistically, the PTAB found that panel expansion rarely occurs -- only 23 cases out of 6,033 decisions on institution; 31 cases out of thousands of Orders; and 5 cases at multiple stages. The PTAB concluded from the study that panels were expanded to provide forward-looking guidance on reoccurring issues and/or to treat similarly-situated parties the same, and that most expanded panel decisions issued as original decisions, not decisions on rehearing. Finally, the PTAB observed that the underlying result remained the same after panel expansion, except in two cases (*Target* and *Nidec*), both of which addressed the identical legal issue of same-party joinder and both were decided more than three years ago.

F. IMPLEMENTATION OF SUPREME COURT AND FEDERAL CIRCUIT CASES

1. SAS Guidance

On April 24, 2018, the U.S. Supreme Court issued its decision in *SAS Institute*, holding that the PTAB may not partially institute a trial on some, but not all, challenges raised in a petition. The [PTAB has since issued guidance](#) on the impact of the SAS decision on trial proceedings, stating that “the PTAB will institute as to all claims or none” and, though not required under SAS, that “if the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition.”

2. The PTAB’s *Aqua Products* Guidance

On October 4, 2017, the Federal Circuit issued an *en banc* decision in *Aqua Products* stating that the USPTO may not place the burden of persuasion on a patent owner with respect to the patentability of substitute claims presented in a motion to amend. [On November 21, 2017, the PTAB issued guidance on the impact of *Aqua Products*](#) on motion to amend practice, and consistent with *Aqua Products*, removed the burden of persuasion from the patent owner, and further indicated that it will “determine whether the substitute claims are unpatentable by a preponderance of the evidence based on the entirety of the record, including any opposition made by the petitioner.” The guidance further stated that practice and procedure before the Board otherwise would not change. The PTAB later issued an informative order to provide guidance and information on the statutory and regulatory requirements for filing a motion to amend after *Aqua Products*. See *Western Digital v. SPEX Techs.*, IPR 2018-00082, -00084 (PTAB Apr. 25, 2018) (Paper 13) (Informative), which reiterates that a patent owner does not have the burden of persuasion to show the patentability of proposed substitute claims.

G. PTAB PRECEDENTIAL AND INFORMATIVE DECISIONS

The PTAB also issued a revised [SOP2 \(Rev 10, Sept. 20, 2018\)](#) on key policies and

procedures concerning the Board's the publication of Board decisions and the review procedure for designating decisions, designations and de-designation of its precedential and informative decisions, and most significantly, the announcement of the formation of a Precedential Opinion Panel (POP), which will decide matters before the PTAB that are deemed to be of "exceptional importance", such as those involving agency policy and procedures.

Briefly, the POP members will be selected by the Director and shall, by default, consist of the Director, the Commissioner of Patents, and the Chief Judge, unless the Director determines that additional or other members are appropriate in certain circumstances. The POP will "generally be used to establish binding agency authority concerning major policy or procedural issues, or other issues of exceptional importance in the limited situations where it is appropriate to such binding agency authority through adjudication before the Board". (See SOP2, pg. 3) For example, constitutional questions, important issues regarding statutes, rules, and regulations, important issues regarding binding or precedential case law, or issues of broad applicability to the Board. (*Id.* at p.4) The POP may also be used to resolve conflicts between Board decisions, to promote certainty and consistency, or to rehear any case it determines warrants the POP's attention. (*Id.*) The PPAC urges interested stakeholders to review and become familiar with SOP2, as important details regarding POP composition, review process, and the effect of POP decisions are provided.

In addition, the PTAB issued two precedential decisions and 11 informative decisions in FY 2018. Most notably, in *General Plastic Indus. Co. v. Canon Kabushiki Kaisha* (§ II.B.4.i), Case IPR2016-01357 et al., Paper 19 (Sept. 6, 2017) (designated Oct. 18, 2017), the PTAB addressed the discretionary factors to be applied under 35 U.S.C. § 315(a) for determining whether to institute multiple petitions against the same patent. The Board also revised its website to organize the decisions topically and thereby enable stakeholders to easily see whether there is a controlling decision on a particular point of law.

H. ANTICIPATED CHANGES

With more than six years of experience in handling AIA trial proceedings, the USPTO is considering three key changes to fundamental aspects of these proceedings.

1. Claim Construction

On May 9, 2018, the USPTO announced that it is considering changes to the claim construction standard applied in AIA trials proceedings and published a [Notice of Proposed Rulemaking in the Federal Register](#). The USPTO proposed transitioning from usage of the “broadest reasonable interpretation” (or BRI) standard to the *Phillips* standard applied by the District Courts and the ITC. The USPTO also proposed to consider prior claim constructions made by the District Courts or ITC, if timely provided. Finally, the USPTO proposed that it would apply the new *Phillips* standard to all trial proceedings pending as of the effective date of a final rule. In response to its proposal, the USPTO received 374 comments from associations, individuals, and corporations. After considering all of the public commentary, the USPTO published on October 11, 2018 a final rule implementing the proposed changes to the claim construction standard.

2. Motion to Amend Practice

The USPTO is considering changes to [motion to amend practice in AIA trials \(see Motion to Amend Study, updated July 2018\)](#). In particular, the USPTO is considering modifications that will give patent owners multiple chances to make claim amendments, while retaining the *inter partes* nature of giving the petitioner an opportunity to respond to proposed amendments as well as retaining the 12-month statutory time period for concluding a trial.

3. Trial Practice Guide Updates

The USPTO has published its update of the [AIA Trial Practice Guide in August 2018](#). Notably, the updated sections of the TPG include guidance on, among other things:

- the use of expert testimony;

- consideration of various non-exclusive factors in the determination of whether to institute a trial;
- the provision of sur-replies to principal briefs as a matter of right;
- the distinction between motions to exclude and motions to strike, and the proper use of each;
- procedures for oral hearing before the Board, including the use of live testimony, sur-rebuttal, and default time for the hearing; and
- the provision of a pre-hearing conference and potential early resolution of issues.

I. OPERATIONAL EFFORTS

1. Management Training

Because the Board has grown in size over the past six years and installed a permanent management structure just last fiscal year, the PTAB developed and executed a training program for its management. All supervisors, including lead judges, supervisory patent attorneys, and supervisory paralegals, attended weekly classes on management related topics ranging from how to conduct a performance evaluation to making effective presentations to embracing diversity and inclusion. In total, PTAB managers attended more than 20 classes, and the program will continue into FY 2019.

2. Hiring and Resources

Given the increased work triggered by the SAS decision coupled with expected attrition due to retirements, the PTAB posted job announcements for both administrative patent judges and patent attorneys. The judge posting was the first in more than two years open to external candidates. In response, a large number of qualified candidates applied to both positions. Specifically, of the more than 325 judge applicants, the Board anticipates extending offers to 10, and of the more than 235 patent attorney applicants, the Board hired 3 and onboarded two so far.

In addition, the PTAB launched a judicial law clerk program, after beta testing with two law clerks over the past fiscal year. Under the PTAB judicial law clerk program, the

Board will offer a one-year term of employment to recent law school graduates and/or new attorneys. The PTAB judicial law clerks will assist the administrative patent judges with reviewing records, preparing for oral hearings, and drafting decisions, similar to the work that law clerks perform for state and federal judges. Of the nearly 350 applications received following the program launch, the PTAB hired and onboarded four law clerks.

The PPAC recognizes and appreciates the potential impact on the PTAB's resources in light of *SAS*, *Aqua Products*, and its own initiatives. The PPAC also applauds the PTAB on its efforts to streamline its internal processes, which when done well, should result in long-term efficiencies. Given that the USPTO is currently proposing a variety of fee increases, including for matters relating to PTAB proceedings, the PPAC encourages the PTAB to conduct data collection and study on the impact of these programs and share the results (as it often does) with the stakeholders so that they can better appreciate the not insignificant fee increases.

III. PATENT QUALITY

A. INTRODUCTION

During FY 2018, the USPTO took a collaborative perspective on the issue of quality with two new initiatives focusing on the shared responsibility of the USPTO and the patent applicant for the overall quality of the examination process. In the Diagnostic Interview Pilot, an examiner may request a pre-search interview with the applicant to better understand the claimed invention and scope of the claims in order to formulate a more focused search strategy. In the Application Readiness Study, the USPTO is seeking to assess attributes or aspects of incoming patent applications as-filed that improve the efficiency and effectiveness of the patent examination process in order to identify best practices in application preparation to share with applicants and external stakeholders.

In addition, the USPTO continued its efforts in improving prior art searching and sourcing, which includes several cross-functional projects such the development of upgraded electronic search tools, and the implementation of the IP5 Collaborative Search and Examination Pilot. Provided below are some highlights from the USPTO's

progress in some of the initiatives that are directed at ensuring that the examiner has access to the best, most relevant prior art early in the examination process. The USPTO also leveraged its growing database of quality metrics, as well as feedback from internal and external stakeholders to update and develop training materials and educational opportunities for both examiners and external stakeholders.

The PPAC commends the USPTO for the progress it has made in the quality initiative and the on-going efforts in patent quality, as discussed below. For more information on the patent quality programs and initiatives, visit

<https://www.uspto.gov/patent/patent-quality>.

B. INITIATIVES ON PRIOR ART SEARCHING AND SOURCING

The overall quality of the patent examination process and issued patents is largely dependent upon the quality of the prior art in front of the patent examiner at the outset of examination. A thorough, efficient evaluation of the patentability of a claimed invention requires that the examiner have the best, most relevant prior art as early as possible in the process. The USPTO, having long-recognized this relationship between the quality of the prior art and the quality of the patent examination and end product, has established multiple initiatives, programs, tools and resources for the purpose of improving the quality of prior art searching performed by the examiners, and providing the examiners with access to relevant prior art identified in related patent applications and families. Those initiatives and resources include, for example, the Expanded Collaborative Search Pilot Program and the IP5 PCT Collaborative Search and Examination Pilot (see Section VII), both of which relate to sharing of search results between the USPTO and foreign patent offices and, in the latter case, collaborative examination; and the modernized and scalable electronic search tools in the new Patent End to End (PE2E) suite of examination software products currently in development by the USPTO (see Section IV). Other initiatives are highlighted below.

1. **Diagnostic Interview Pilot**

Every prior art search strategy begins with the patent examiner's understanding of the invention and interpretation of the claims. In FY 2018, the USPTO launched the Diagnostic Interview Pilot to determine whether diagnostic interviews, conducted pre-search and before the issuance of a first action on the merits, can lead to more effective searches and improved overall quality of the examination. The diagnostic interview provides the examiner with an opportunity to quickly get up-to-speed on relevant terms of art, the field of the invention, and the state of the art. It also provides the examiner with an opportunity to hear what the applicant believes to be the inventive concept. While not a substitute for the examiner's independent assessment of the invention and claims as described in the application, the examiner can use the information garnered from the diagnostic interview to focus the search strategy in order to find the most relevant prior art at the outset.

Approximately 120 examiners, representing all utility technology centers, volunteered to participate in the pilot. Eligible applications were selected for the pilot by the examiner based on their assessment of the potential value of a diagnostic interview in understanding the invention and interpreting the claims. The pilot was designed to collect data on factors considered by the examiner in selecting applications for the diagnostic interview, and factors considered by the applicant's patent attorney or patent agent in agreeing to diagnostic interview. In addition, the pilot was designed to collect data on the particular aspects of the specification and claim interpretation that were discussed during the diagnostic interview, and whether that the interview was helpful in the prior art searching.

The Diagnostic Interview Pilot differs from the First Action Interview Pilot Program in that the diagnostic interview is solely at the request of the examiner. In addition, the diagnostic interview is conducted pre-search, without a Pre-interview Communication prepared by the examiner in advance of the interview, which significantly decreases the

time burden of the interview on the examiner. The Diagnostic Interview Pilot is expected to run through the end of FY 2018 Q4. The PPAC commends the USPTO on exploring interview options that are less burdensome on the examiners and conducted at a stage that may lead to more targeted searches. However, the PPAC would like to see the program expanded to allow applicants to request a pre-search interview under appropriate conditions.

2. Access to Relevant Prior Art Initiative

As discussed in the 2017 PPAC Annual Report and highlighted in Section VII of this Report, the Access to Relevant Prior Art Initiative (RPA) was instituted in an effort to increase patent examination quality and efficiency by leveraging electronic resources to improve an examiner's access to relevant information in applications under examination by the examiner. Relevant sources would include related U.S. applications, counterpart foreign applications, and related international applications filed under the Patent Cooperation Treaty (PCT). In addition to improving patent examination quality, the RPA is expected to improve the efficiency and speed of the examination process and simplify application processes for applicants. The USPTO anticipates incorporating RPA functionality into its PE2E examination tools.

In a Federal Register notice published on October 25, 2018, the USPTO announced the implementation of Phase I of the RPA to import prior art citations from the immediate parent application into the continuing application, effective November 1, 2018. In the first phase of this initiative, the USPTO will import the citations listed on forms PTO/SB/08 and PTO-892 in the immediate parent application into the continuing application. If compliant with 37 CFR 1.98 in the parent application, the examiner will consider the documents that correspond to these citations and the citations will be printed on the patent. This will eliminate the need for an applicant to submit an Information Disclosure Statement (IDS) in the continuing application for the purpose of having these citations printed on the patent. Additionally, an applicant's duty to disclose information under 37 CFR 1.56 will be satisfied with respect to the documents considered by the examiner in the continuing application. The first phase will begin with

a targeted release of a newly developed interface to a small group of examiners from a limited number of selected art units.

In subsequent phases of the RPA, the USPTO will consider providing examiners access to information from other sources such as other applicant-related U.S. applications, international applications under the PCT, and counterpart foreign applications, and providing access to text-searchable copies of documents in the master reference list.

More information on the RPA can be found at

<https://www.uspto.gov/patents-getting-started/access-prior-art-project>;

and a copy of the October 25, 2018 Federal Register notice can be found at

<https://www.gpo.gov/fdsys/pkg/FR-2018-10-25/pdf/2018-23338.pdf>.

3. Post Grant Outcomes Program

In FY 2016, the USPTO launched a pilot program under the Post Grant Outcomes program directed to patents that are being challenged at the PTAB under AIA trials that have related applications pending in the Patent Examining Corps. A key objective of the pilot program was to enhance patentability determinations in related pending applications by providing examiners with the content included in the PTAB AIA trial proceeding, including relevant prior art and expert declarations.

Based on the results of the pilot program, in FY 2018, the PE2E-DAV docket management tool used by examiners was upgraded to incorporate notice-and-access functionality. The new functionality included an indicator visible on the examiner's toolbar to notify the examiner that an application on their docket is related to an issued patent undergoing an AIA trial and a link to enable the examiner to quickly access the contents of the AIA trial. As of FY 2018 Q4, over 1400 AIA trial proceeding had been linked to related applications undergoing examination. The USPTO reported that in a random sample of these applications, nearly 50% of examiners cited at least one prior art reference from the AIA trial in an office action as either of record or in a prior art rejection. More information on the Post-Grant Outcomes program can be found at <https://www.uspto.gov/patent/initiatives/post-grant-outcomes>.

C. STAKEHOLDER EDUCATION AND GUIDANCE

In FY 2018, the USPTO continued its focus on educational opportunities and guidance for internal and external stakeholders. For example, the USPTO provided updated guidance on subject matter eligibility, began the process of identifying best practices in application preparation in order to develop educational materials for external shareholders, and brought external and internal stakeholders together in a variety of educational opportunities.

1. Guidance on Subject Matter Eligibility

Subject matter eligibility (SME) under 35 U.S.C. § 101 is an issue of current concern to many stakeholders, internal and external alike. Recent developments in case law have brought to light different contours in the interpretation of certain judicially-created exceptions under 35 U.S.C. § 101. In FY 2018, the USPTO issued SME guidance in memoranda addressed the Patent Examining Corps following decisions in (1) *Finjan v. Blue Coat Systems*, 879 F.3d 1299 (Fed. Cir. 2018), and *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018), in which claims focused on software-related inventions for improving computer technology were held to be patent eligible; and (2) *Vanda Pharmaceuticals Inc. v. West-Ward Pharmaceuticals*, 887 F.3d 1119 (Fed. Cir. 2018) in which claims that were directed to a method of treating a patient with a drug known to be counter-indicated in patients of a certain genotype were held to be patent eligible. The USPTO also issued a guidance memorandum following a decision in *Berkheimer v. HP Inc.* 881 F3d 1360 (Fed Cir. 2018). This guidance was directed at the evaluation of whether a claim limitation is well-understood, routine and conventional in the context of an SME analysis. The SME guidance memoranda and related resources can be found at <https://www.uspto.gov/patent/laws-and-regulations/examination-policy/subject-matter-eligibility>.

2. Application Readiness Analysis

With the application readiness study, the USPTO sought to assess what attributes of incoming patent applications may serve to enhance the examination process. In FY 2018, the USPTO shared the results of this study which showed that the most important attributes included an inventive concept clearly set forth in the specification, independent claims that captured the same inventive concept disclosed in the specification, and claims that were solely directed to the inventive concept and not broader than the inventive concept. The PPAC commends the USPTO for undertaking this study and providing external stakeholders with examples of specific practices in application preparation that may improve the quality of the examination process.

3. Educational Opportunities for Stakeholders and Examiners

The USPTO continues to offer opportunities for examiners and other internal stakeholders to engage with external stakeholders and the inventor community. In FY 2018, the USPTO also offered its newly-created Virtual Instructor Led Training (vILT) program to brief external stakeholders on topics related to examination practice and procedures. In addition, the USPTO offered its popular three-day educational program to external stakeholders, the Stakeholder Training on Examination Practice and Procedures program (STEPP). This year, however, the USPTO offered two options for the STEPP program: an agent/attorney course, and an inventor course. In addition, the USPTO continued to offer the Patent Examiner Technical Training Program (PETTP), in which outside scientists and experts provide relevant technical training and expertise to examiners; and the Site Experience Education (SEE) program, in which the USPTO funds travel costs for examiners to visit commercial and academic institutions to view current innovations in the relevant technologies.

D. COMMUNITY OUTREACH

During FY 2018, the USPTO held or participated in numerous public meetings, roundtables and conferences to gather feedback, unveil initiatives and programs, offer training and guidance to the public, and engage in dialog with the public on patent

issues of interest. In addition, the USPTO hosted 13 Patents Customer Partnership Meetings (CPMs) in FY 2018. CPMs provide an opportunity for external stakeholders to meet directly with USPTO representatives in a collaborative, industry-specific forum. The USPTO also continued its Patent Quality Chats series to provide external stakeholders with information on patent quality topics.

E. FY 2018 QUALITY DATA

Under the Quality Metrics program, the USPTO assesses the correctness of office actions under a framework of “statutory compliance.” A statutorily compliant office action is one that includes all applicable rejections and no improper rejections, and one in which every asserted rejection is correct in that the decision to reject is based on sufficient evidence to support the conclusion of unpatentability. The review standard focuses not only on assessing the correctness of the examiner’s ultimate decision to allow or reject under a particular statute, but also on whether the examiner’s rationale for supporting the rejection is sufficient.

FY 2017 was the first full year in which the OPQA used this framework to measure office action quality. During FY 2018, the OPQA used this framework to review non-final rejections, final rejections and allowances for statutory compliance by evaluating whether the office action includes correct determinations for every pending claim based on the four patentability statutes: (i) 35 U.S.C. § 102 – Novelty; (ii) 35 U.S.C. § 103 – Obviousness; (iii) 35 U.S.C. § 112 - Specification (Enablement, Written Description, Definiteness); and (iv) 35 U.S.C. § 101 - Inventions Patentable (Subject Matter Eligibility).

Every rejected claim in an office action is reviewed to ensure that the rejection of the claim was proper for each statute under which the claim is rejected. Each rejection must, at a minimum, correctly: (1) identify the claim and relevant statute, and (2) set forth sufficient evidence to put a person of ordinary skill in the art on notice as to why the claim is unpatentable. Additionally, every claim in an office action, whether a rejection or an allowance, is evaluated for rejections that should have been made under

a statutory basis but were improperly omitted.

The compliance rates represent the number of office actions out of the total number of reviewed office actions that were fully compliant with the relevant statute. It does not take into account the total number of claims that were examined in the office actions. To calculate the compliance rate the total number of office actions that properly evaluated all pending claims under the relevant statute is divided by the total number of office actions reviewed. The difference between the compliance rate and 100% represents the percentage of reviewed office actions that contained at least one instance of non-compliance under the relevant statute. Because all pending claims are evaluated under each statute, a typical application with 20 claims requires the USPTO to make 20 different statutory compliance determinations for each of the four relevant statutes—80 determinations in all. If any single claim is subject to a determination of a non-compliance under the relevant statute due to an improper rejection or an improper omission of a rejection, the office action is deemed to be non-compliant regardless of the number of claims or the number of determinations of compliance with the relevant statute.

If all the claims examined in the office action are properly addressed under every statute, the office action is then deemed to be fully compliant. Any office action in which a non-compliance is found will undergo a second evaluation and be sent to the relevant TC for consideration. The TC will determine the appropriate course of action for any required corrections. For allowances, this would include correction of the office action prior to issuing of the allowance.

The statutory compliance metrics provide an indication of the quality of the patent examination process at defined stages across a statistically significant number of office actions. However, because it provides only a snapshot in time, it is not necessarily a reliable indicator of the quality of the claims that ultimately issue from the examination process. For example, an improper rejection in a non-final or final office action may have little or no bearing on the quality of the claims in the patent as ultimately issued if, for example, in response to a properly made rejection, the claims were subsequently

amended or cancelled so as to render the non-compliant rejection irrelevant. In another example, a non-compliance due to an improperly omitted rejection in an office action may have no impact on the claims that ultimately issue if the previously-omitted rejection is made in a subsequent office action.

1. **FY 2018 Statutory Compliance Targets**

To define the FY 2018 statutory compliance targets, the USPTO took into account the statistical confidence level for each metric. The statutory compliance targets for FY 2018 are shown in the following table. For comparison, the FY 2017 statutory compliance targets and year-end results are also shown.

Statute (35 U.S.C. §)	FY 2017 Statutory Compliance Target	FY 2017 Statutory Compliance Results	FY 2018 Statutory Compliance Target
101	93 - 98%	96.5%	>97%
102	90 - 95%	92.3%	>93%
103	88 - 93%	94.5%	>95%
112	87 - 92%	92.6%	>93%

For the calculation of statutory compliance in each of the categories shown below, the total number of relevant reviews is constant for each statute and includes those reviews that the OPQA conducted on randomly sampled office actions. The PPAC lauds the USPTO for the on-target compliance rates for allowances under each statutory category. For more information on the Quality Metrics program, visit <https://www.uspto.gov/patent/initiatives/quality-metrics-1>.

2. **35 U.S.C. § 101**

The USPTO 35 U.S.C. § 101 statutory compliance metrics are based on reviews assessing patent eligibility as well as utility, where the reviews were conducted by the OPQA on every office action type from all technologies. An action that does not reject a

claim under a given statute is considered to be compliant as long as the reviewer does not identify an omitted rejection. For example, the compliance metric for 35 U.S.C. § 101 includes as a compliant action many actions from technologies that are clearly patent eligible under current law because no 35 U.S.C. § 101 rejection was made and no rejection was warranted.

During FY 2018, the USPTO continued its efforts to increase the reliability and predictability of subject matter eligibility determinations under 35 U.S.C. § 101. As noted above in this Section III, the USPTO provided and updated guidance for examiners on subject matter eligibility, with the aim of drawing predictable lines for the examiners and the public on what is eligible and what is not. While some uncertainty remains, the USPTO reported that since issuing the guidance memorandum based on *Berkheimer v. HP, Inc.* in April 2018, the Office has seen a decrease in subject matter eligibility rejections made under 35 U.S.C. § 101 from about 8.1% to about 6.6%.

In FY 2018, the overall statutory compliance rate for 35 U.S.C. § 101 was 96.8% (+/- 0.3%), which is within range of the target of >97% and on par with the overall statutory compliance rate for FY 2017. The FY 2018 compliance rate for non-final office actions was the same as for FY 2017 at about 96%. For final office actions, the compliance rate was about 96%, slightly down from about 97% for FY 2018. Finally, the compliance rate for allowances was about 98%, which is about the same as it was for FY 2018.

As the PPAC noted in its 2017 Annual Report, while the compliance rates 35 U.S.C. § 101 are all at or near the target rate, the compliance data is skewed by the vast majority of applications in which no rejection is made or warranted. According to a case study conducted by the USPTO in FY 2017, 32% of subject matter eligibility rejections made under the now familiar *Alice/Mayo* two-step test were improperly made and/or not properly explained. This case study was limited to certain technologies that are more likely to encounter *Alice/Mayo*-type rejections under 35 U.S.C. § 101, such as computer-based technologies and life sciences. As such, the data is not necessarily representative across all types of subject matter eligibility rejections. In addition, this case study did not apply the same statutory compliance framework used by the OPQA

in determining whether a rejection was properly made so the data does not directly compare with the current quality metrics used by the Office.

In FY 2018, about 16% of office actions included a subject matter eligibility rejection of at least one claim under 35 U.S.C § 101. Of the office actions that included a rejection under 35 U.S.C § 101, the overall statutory compliance rate was about 89%. The compliance rate for non-final office actions was about 88%, and the compliance rate for final office actions was about 91%. The PPAC recommends that the USPTO continue to track the compliance rates of rejections made under 35 U.S.C. § 101 and share that data with the public on a regular basis.

3. **35 U.S.C. §§ 102 and 103**

The USPTO prior art statutory compliance metrics are based on reviews assessing patentability under 35 U.S.C. §§ 102 and 103, where the reviews were conducted by the OPQA on every office action type from all technologies. An action that does not reject a claim under a given statute is considered to be compliant as long as the reviewer does not identify an omitted rejection. As such, the compliance metrics for 35 U.S.C. §§ 102 and 103 include as a compliant action any action in which no rejection was made and no rejection was warranted. As part of the review for prior art statutory compliance, the OPQA performs *de novo* prior art searches to determine whether the best prior art that could reasonably be found was, in fact, been found. The PPAC strongly believes that patent quality is highly-dependent on the quality of the prior art search. As such, for the purposes of measuring and improving the quality of prior art searches, the PPAC suggests that when a determination that a prior art rejection was improperly omitted, the USPTO should collect data on whether it was omitted because the prior art was not found or provided to the examiner, or because it was considered by the examiner to be immaterial to patentability.

As discussed below, the FY 2018 statutory compliance rates for 35 U.S.C. § 102 were at or above the target range of >93% for all categories. However, the FY 2018 statutory compliance rates for 35 U.S.C. § 103 ranged from about 91.3% to about 98%, with the

compliance rate for allowances being the only category that met the target of >95%. The PPAC recommends that the USPTO continue to analyze the data with respect to non-compliances under 35 U.S.C. § 103 to determine the causes of the decline in compliance rates in order to address the shortcoming in meeting the FY 2018 target.

For FY 2018, the overall statutory compliance rate for 35 U.S.C. § 102 was 95.2% (+/- 0.4%), which is up from about 92.3% for FY 2017 and above the target of >93%. The FY 2018 statutory compliance rates for 35 U.S.C. § 102 also within range of the target of >93% for each office action type. The FY 2018 compliance rate for non-final office actions was about 93%, which is on par with the FY 2017 compliance rate for non-final office actions. The FY 2018 compliance rate for final office actions was about 95%, which was slightly down from about 96% for FY 2017. For allowances, the FY 2018 compliance rate was about 98%, up from about 94% for FY 2017.

Turning to 35 U.S.C. § 103, the FY 2018 overall statutory compliance rate came in at 92.0% (+/- 0.4%), which was down from about 94.5% for FY 2017 and fell short of the 2018 target of >95%. The compliance rate for non-final office actions was about 89%, down from about 90% for FY 2017. For final office actions, the compliance rate was about 87%, down from about 89% for FY 2018. Finally, the compliance rate for allowances was about 98%, which was on par with the compliance rate for allowances for FY 2017.

4. 35 U.S.C. § 112

The USPTO 35 U.S.C. § 112 statutory compliance metrics are based on reviews assessing patentability under 35 U.S.C. § 112(a) written description, 35 U.S.C. § 112(a) enablement, and 35 U.S.C. § 112(b), where the reviews were conducted by the OPQA on every office action type from all technologies. An office action that does not reject a claim under a given statute is considered to be compliant as long as the reviewer does not identify an omitted rejection or an improper rejection. As such, the compliance metric for 35 U.S.C. § 112 includes as a compliant action any action in which no rejection was made and no rejection was warranted. Also, a single case that is non-

compliant with respect to both 35 U.S.C. § 112(a) and 35 U.S.C. § 112(b) will be counted only as a single instance of non-compliance in the overall 35 U.S.C. § 112 metric.

For FY 2018, the overall statutory compliance rate for 35 U.S.C. § 112 was 92.9% (+/- 0.4%), which is about the same as for FY 2017 but slightly under the 2018 target of >93%. The FY 2018 statutory compliance rates for 35 U.S.C. § 112 were also below the target of >93% for each office action type, with the exception of allowances. The compliance rate for non-final office actions was about the same as for FY 2017 at about 90%. For final office actions, the FY 2018 compliance rate was about 92%, slightly up from about 90% for FY 2017. The FY 2018 compliance rate for allowances was about 96%, up from about 95% for FY 2017.

5. External Quality Survey

The USPTO has conducted External Quality Surveys (EQS) on a regular basis since 2006, with the most recent being completed during in the second quarter of FY 2018. The perceptions and data collected through the EQS are analyzed and used to validate measured internal quality data. Participants in the EQS are selected from a pool of frequent customers, defined by the USPTO as customers who have filed six or more applications within a twelve-month period. Approximately half of the most recent survey participants had received more than 20 office actions in the three-month period prior to being surveyed. An additional 30% of the survey participants had received 11-20 office actions in that period. Participants typically include a spectrum of customers from both private and public settings, including patent attorneys, patent agents, and other professionals involved in patent prosecution. For each survey, the USPTO seeks to include sufficient participants from each TC in order to produce a statistically significant data set for comparative analysis.

In prior years, survey participants were asked such questions as how often they thought the rejections under specific patent statutes were reasonable in terms of being technically, legally, and logically sound, whether they experienced problems with the

consistency of examination quality from one examiner to the next, and how they would rate overall examination quality. In the most recent survey, participants were asked about how often they thought rejections under specific patent statutes were reasonable in terms of correctness, clarity, and consistency. Correctness of a rejection was defined as “[c]ompliance with all requirements of Title 35 USC as the relevant case law at the time of issuance. Decisions to reject were proper and contained sufficient evidence to support a conclusion of unpatentability.” Clarity of a rejection was defined as “[s]ufficiently allows anyone reviewing a rejection to readily understand the position taken.” Finally, consistency was defined as “[a] similar manner of treatment and examination standards between applications and examiners.” In addition, participants were asked to rate overall patent examination and search quality. The shift in focus of the survey to the perceived correctness of a rejection brings the survey in-line with the USPTO’s internal quality metrics, which are also directed to statutory compliance—i.e., correctness—of a rejection properly made or properly omitted.

The FY 2018 Q2 data on customer perception of the frequency of rejections that were reasonable in terms of correctness shows that about 66% of survey participants who experienced 35 U.S.C. § 102 rejections, and 62% of participants who received 35 U.S.C. § 112(a) rejections reported that the rejections were reasonable in terms of correctness most of the time. About 70% of participants who received 35 U.S.C. § 112(b) rejections reported that the rejections were reasonable in terms of correctness most of the time. For participants who received 35 U.S.C. § 103 rejections, about 41% of participants reported that the rejections were reasonable in terms of correctness most of the time. In contrast, only about 26% of survey participants who received 35 U.S.C. § 101 rejections reported that the rejections were reasonable in terms of correctness most of the time. Although not a direct comparison, in FY 2017 Q2, only about 19% of participants who received 35 U.S.C. § 101 rejections reported that the rejections were technically, legally and logically sound rejections most or all of the time. The difference between the FY 2017 Q2 and FY 2018 Q2 data may reflect an upward shift in customer perception of the quality of 35 U.S.C. § 101 rejections actually made; however, a rejection that is perceived as technically, legally and logically sound may or may not

also be perceived as reasonable in terms of correctness.

According to the FY 2018 Q2 data on customer perception of the frequency of rejections that were perceived as reasonable in terms of clarity shows that about 78% of participants who received 35 U.S.C. § 102 rejections, 74% of participants who received 35 U.S.C. § 112(a) rejections, and 70% of participants who received 35 U.S.C. § 112(b) rejections reported that the rejections were reasonable in terms of clarity most of the time. About 56% of participants who received 35 U.S.C. § 103 rejections reported that the rejections were reasonable in terms of clarity most of the time. However, only about 34% of participants who received 35 U.S.C. § 101 rejections reported that the rejections were reasonable in terms of clarity most of the time.

The FY 2018 Q2 data on customer perception of the frequency of rejections that were perceived as reasonable in terms of consistency also shows that about 74% of participants who received 35 U.S.C. § 102 rejections, and 70% of participants who received 35 U.S.C. § 112(b) rejections reported that the rejections were reasonable in terms of consistency most of the time. About 65% of participants who received 35 U.S.C. § 112(a) rejections and only about 52% of participants who received 35 U.S.C. § 103 rejections reported that the rejections were reasonable in terms of consistency most of the time. However, only about 26% of participants who received 35 U.S.C. § 101 rejections reported that the rejections were reasonable in terms of consistency most of the time.

The percentage of survey participants who reported that the overall examination quality is “good” or “excellent” has hovered around 50% from FY 2013 Q3 through FY 2018 Q2. During that same period, the percentage of customers reporting “poor” or “very poor” overall examination quality has remained relatively constant at about 9-10%.

Finally, to measure agreement between the customer perception of overall examination quality and each of the rejection factors, the USPTO calculated polychoric correlations and ranked the correlations from highest to lowest. In general, the rejections under 35 U.S.C. § 103 and 35 U.S.C. § 102 were found to have the highest correlations with

overall examination quality. In contrast, rejections made under 35 U.S.C. § 101 and 35 U.S.C. § 112(b) rejections were among the lower correlations with overall examination quality. The poor correlation between the perception of and the statistical data related to overall examination quality for rejections made under 35 U.S.C. § 101 warrants consideration by the USPTO. The customer survey data represent the perception of the overall examination quality for rejections that were made under 35 U.S.C. § 101, whereas the statistical data include as compliant the vast majority of office actions in which no rejection is made or warranted. Again, the PPAC recommends that the USPTO track compliance data on rejections made under 35 U.S.C. § 101 and share the data with the public. A presentation of the results of the FY 2018 Q2 External Quality Survey, can be found at https://www.uspto.gov/sites/default/files/documents/20180802_PPAC_Quality_Update.pdf.

IV. INFORMATION TECHNOLOGY

A. OVERVIEW

The Information Technology (IT) group within the USPTO serves the Office in a support role. However, for many users, most of the interactions with the USPTO are driven by functions administered by the IT group. It is further noted that in a continual effort to improve patent quality, the IT group works to insure that both the public and the Patent Examining Corps have rapid access to the relevant prior art; to this end, the IT group has brought online over 60 million patents from Europe, Japan, China and Korea. This increase in available prior art, when combined with an increase in user demand and the global nature of intellectual property, make it mandatory that the IT components function effectively and efficiently.

The IT functions within the USPTO can be broken two distinct areas – the infrastructure and the user interface. The infrastructure describes those necessary hardware and software functions that cannot necessarily be seen, but which are vital to the functioning of a robust IT system. The user interface refers to the many search tools, screen shots, forms, linkages with foreign offices, and correspondence, which inventors, patent

attorneys, patent agents, examiners, and the public see and use.

The infrastructure elements that are important to this Report include the electrical system, security measures, hardware, and the data input and processing of user information.

1. **Security Measures**

The security measures refer to the manner in which a practitioner (inventor, attorney or agent) or user can access the various filings that have been made in regard to a particular application. The intent here is to insure that only the inventor or the registered practitioner can view the filings, to the exclusion of anyone else. In this regard, the IT group within the USPTO relies on guidance from personnel from the National Institute of Standards & Technology (NIST). NIST requires that IT systems within the civilian side of the U.S. government comply with data standards they have put forth. The IT group has met and continues to meet the continually heightened NIST requirements for user verification.

The USPTO can state unequivocally that the authentication of users for purposes of restricting access to intellectual property filings meets the NIST requirements. In addition, all cryptographic requirements put forth by NIST are met or exceeded by USPTO hardware. The collection of fees is also secured by NIST required protocols.

In the very near future, individual identifiers for both the practitioners and for their support staff will replace the present Public Key Identifiers (PKI). This system will further work to protect the intellectual property of both inventors and their employers who work with the USPTO. It is scheduled to be fully implemented by December 31, 2018. As of October 1, 2018, the USPTO opened the new authentication migration tool to the public users to allow applicants to link PKI certificates to USPTO.gov accounts ensuring USPTO is in compliance with the latest Federal Information Security Management Act (FISMA) requirements. In early November 2018 the public will have access to the new sponsorship tool that will provide applicants using Patent Center new functionality for additional filing.

2. **Hardware**

The IT system within the USPTO still relies on some legacy systems, which essentially means that the hardware is aged and very difficult to service. Similarly, some software is peculiar to the legacy computers and cannot be ported to other processing platforms. This undesirable situation continues to be improved with legacy computer systems being replaced by modern processing platforms.

3. **Data Input and Processing**

The data input for most of a new patent application is in the form of an optical image. At this very instant, however, the system is being changed to DOCX filing. DOCX filings are much more efficient in terms of computer processing time. The prior Optical Character Recognition (OCR) filing system is inefficient. This change in technology will result in improve quality and efficiencies in data management for streamlining the filing, application and examining processes.

The user interface describes the manner in which the user community (examiners, inventors, practitioners and the public) interacts and makes use of software in the application and examination process. The various software tools relate to the examination of applications, office correspondence, access to foreign filings, patent classification, management tools, and search of prior art. Described here are major changes to the user interface with the goals always being those of both improving patent quality and streamlining the filing, application and examining processes. All of the new user interface products are essentially a combined and linked system known as Patents End to End or PE2E. The various portions of this entire suite of software are all interrelated and can communicate easily between components. The various modules are listed below:

a. **PE2E: Examination Products**

PE2E Examination Products actually consist of 4 products, known as Docket Application and Viewer (DAV), Official Correspondence/Action (OC), Examiner Search,

and Cooperative Patent Classification (CPC). These systems have been partially or fully released, and are in use within the USPTO. These modules replaced or continue to replace legacy software systems, and have resulted in improvements in the manner in which the Patent Examining Corps operates. The IT group has gone to great lengths to allow the users of these tools have to provide feedback so as to improve both operation and acceptance by the Patent Examining Corps.

b. PE2E: Patent Center

The Patent Center is designed to replace Public and Private PAIR as well as EFSWeb. This improvement will also allow text input (DOCX), which also was covered under the Infrastructure Section of the Report. In essence, Patent Center will allow “one stop shopping” for users who in the past have had to enter the various databases through different web pages and links.

c. PE2E: Global Dossier

Global Dossier allows access to published foreign IP office filings as well as allowing foreign IP offices to view published U.S. filings. Work is continuing to be done to enhance the functionality of Global Dossier as well as scope of data available, allowing public users as well as examiners at patent offices around the world better access and review of foreign prior art.

d. PE2E: CPC Management Tools

Classifying CPC Management Tools are composed of database enhancements USPTO-driven components of CPC, including the Classification Allocation Tool (CAT) to support CPC Reclassification projects and legacy services, and Next Gen applications - DAV and Enterprise Search Tools (EST) and on the cloud.

e. PE2E: CPC IP Office Collaboration Tools

The Cooperative Patent Classification tool (CPC) is a detailed patent classification system that was based on the European Classification system (ECLA) as a foundation

and is administered by the USPTO and EPO. This system harmonized EPO and USPTO classifications systems (ECLA and USPC respectively) into one system. ECLA was based on the International Patent Classification standards, which are administered by the World Intellectual Property Organization (WIPO). This user interface and tool is for collaborating with EPO through a shared, web-based platform for examiners to resolve classification issues and recommend revision projects dealing with CPC collaboration and other IP Offices maintaining a dynamic CPC classification system, enable examiners from various offices to collaborate with one another.

f. PE2E: Content Management System

This part of the PE2E program aims to combine several databases within the USPTO into one large database. This task will include gathering data from the Information File Wrapper (IFW), which has been one of the slowest legacy systems currently in use by the USPTO.

The work done by the IT group is essentially a revamping of a system that has run on various pieces of last generation (or earlier) hardware with the software coding for various programs being captive to a particular computer. Moreover, the myriad of databases and antiquated hardware made operation of the system operation very unstable. PE2E Content Management System (CMS) is an enterprise document storage solution is designed to be stable and scalable infrastructure with built-in high availability and disaster recovery capabilities. All legacy IFW system images have been migrated to the new PE2E CMS and checked for quality. Patent examiners access all IFW images via the PE2E CMS when using the DAV.

4. Modernization

The transition from both legacy hardware and prior software has not been without its challenges. There have been instances when usage of alternate filing systems has been required; at other times, real-time access for users has been denied. In late FY 2018, PALM was non-functional for several days. There has also been an increased and unexplained demand for Public PAIR access. Because the legacy systems are unstable, particularly when there is high demand by users of the system, the user is then wrongly “denied” access to data when using Public PAIR, receiving error messages that certain patent applications are unavailable for access.

While the PPAC attributes some of these issues as being due to be “growing pains,” it is understandable why the user community and stakeholders are frustrated. The PPAC has reviewed with IT leadership the plans for exiting the legacy systems. The PPAC believes that the pathway for this exit is sound and that an immediate, effective and stable transition is greatly needed.

V. PATENT PENDENCY

A. INTRODUCTION

In this section, the PPAC reviews USPTO operations as they affect pendency, i.e., the time the USPTO takes to examine a patent application.

B. FILING VOLUMES AND BACKLOGS

During the past year, the USPTO again received a steady volume of new utility, plant, and reissue (UPR) filings and reduced the backlog of unexamined UPR filings in its inventory. As of July 31, 2018, the volume of new UPR filings is on pace to meet the volume of last year. The PPAC views the receipt of a steady volume of new UPR filings year over year as indicative of public support of the USPTO and recognition of the value of a U.S. patent. Also, as of July 31, 2018, the backlog of unexamined UPR filings is on pace to be reduced to about fifteen months’ worth of new UPR filings. The PPAC considers a backlog at this level to be an expected working inventory for the USPTO.

The PPAC lauds the USPTO for reducing its backlog to this level.

C. AVERAGE AND ABSOLUTE PENDENCY

During the past year, the USPTO once again continued to make progress on reducing patent pendency, whether measured on an average basis or in absolute terms. In this sub-section, the PPAC first reviews the USPTO's patent pendency goals in an historical context and then turns to the USPTO's progress towards meeting those goals. Then, the PPAC considers the USPTO's pendency performance in absolute terms with respect to meeting the prompt examination guarantees of the American Inventors Protection Act (AIPA).

Historically, the USPTO measures patent pendency on an average basis. The USPTO uses two statistics for this purpose: first action pendency and traditional total pendency. First action pendency measures the average number of months from the filing date of an application to the mailing date of a first office action. Traditional total pendency measures the average number of months from the filing date of an application to the date of final disposal (i.e., issue as a patent or abandonment).

Currently, the USPTO is striving to reach two average patent pendency goals: a first action pendency of 10 months and a traditional total pendency of 20 months. These goals are commonly referred to as the 10/20 goals. The USPTO first announced these goals in its 2010-2015 Strategic Plan and re-affirmed them in its 2014-2018 Strategic Plan.

Earlier this year, the DOC elevated these average patent pendency goals to the status of Agency Priority Goals. More specifically, in its 2018-2022 Strategic Plan, the DOC tasked the USPTO with reaching first action pendency and traditional total pendency of less than 15 and 24 months, respectively, by the end of FY 2019.

The USPTO has made steady progress towards reaching the 10/20 goals since their announcement. Indeed, the USPTO has steadily reduced first action pendency and traditional total pendency from 28.0 and 33.7 months in FY 2011 to 15.6 and 21.4

months as of July 31, 2018, respectively. Moreover, the USPTO stands poised to meet – and even exceed – the Agency Priority Goals set by the DOC. The PPAC applauds the USPTO for these achievements.

In its Annual Report last year, the PPAC observed similar steady progress, but cautioned the USPTO that the 10/20 goals should not be the focus of the USPTO's efforts to reduce pendency. As stated then by the PPAC, "applicants base their perception of the efficiency of the USPTO on the timeliness of the examination of their own applications, not applications on the whole." The PPAC reiterates that statement here. In the view of the PPAC, wide variations in the absolute timing of examination create the perception of inefficiency among the applicant community and the public, regardless of the progress that the USPTO makes on reducing average pendency.

In this regard, the PPAC notes that first action pendency and traditional total pendency are average measures that disguise a wide range of actual pendency behavior. For example, as mentioned earlier, first action pendency is an average of 15.6 months as of July 31, 2018. But, the standard deviation is 8.2 months as of July 31, 2018, which describes an extremely wide variation in the timing of first actions. Indeed, the USPTO issued first office actions from as early as 1 month or less to as late as 133 months after filing as of July 31, 2018. Moreover, first action pendency varies widely across technology centers, from a low of 11.3 months in TC 2600 (Communications) to a high of 19.6 months in TC 2100 (Computer Architecture, Software, and Information Security) as of July 31, 2018.

Wide variations in pendency are undesirable to patent applicants, who need certainty to commercialize their technologies. Indeed, as Director Iancu noted in his prepared remarks to the U.S. Senate Committee on the Judiciary during the April 2018 oversight hearing on the USPTO, "[t]he timely issuance of patents helps to provide certainty in the marketplace, and helps businesses and innovators to make informed decisions on the development and marketing of their products and services." In the view of the PPAC, wide variations also create a perception of unfairness among the applicant community and the public because the pendency of an application should not depend upon the

technology of the application or the examiner assigned to examine it.

Accordingly, in its Annual Report last year, the PPAC recommended that the USPTO adopt the prompt examination guarantees of the AIPA as its pendency goals. Under the terms of the AIPA, each application is guaranteed a prompt examination that meets several requirements, including 14 months from the filing date of an application to the mailing date of a first office action and 36 months from the filing date of an application to the issue date of a patent. These guarantees are commonly referred to as the AIPA or 14/4/4/4/36 guarantees. In contrast to the 10/20 goals, the AIPA guarantees are absolute per application guarantees, not average goals across all applications in the USPTO. The USPTO is required to award Patent Term Adjustment (PTA) to any patent whose examination does not meet the AIPA guarantees, subject to deductions for applicant delays and other limitations.

Before making its recommendation last year, the PPAC had observed significant failings by the USPTO in meeting the AIPA guarantees. For example, the USPTO met the guarantee of 14 months to first office action in 44% of applications in FY 2017. The PPAC made its recommendation based on the belief that average USPTO-wide pendency goals like 10/20, while helpful for reducing pendency in general, are not a substitute for the certainty provided to the applicant community by the absolute per application AIPA guarantees.

The PPAC is pleased to note that the USPTO has given thoughtful consideration to its recommendation last year to adopt the AIPA guarantees as the pendency goals. The PPAC appreciates and applauds such consideration. For example, the PPAC recognizes the consideration reflected in the USPTO's FY 2017 Performance and Accountability Report (PAR). In the FY 2017 PAR, the USPTO stated that it "has begun analyzing pendency within the timeframes of Patent Term Adjustment (PTA), with a view towards minimizing PTA while continuing towards the 10/20 months' goals." Also, for example, the PPAC recognizes the consideration reflected in Director Iancu's prepared remarks during the April 2018 oversight hearing. In his prepared remarks, Director Iancu referred to the USPTO's goals of meeting the DOC's Agency Priority

Goals for average pendency and then stated that “[o]f critical importance is that we examine patent applications within the statutory patent term adjustment timeframes.”

The PPAC is also pleased to note that the USPTO has made slight but meaningful progress this year on meeting the AIPA guarantees. For example, as of July 31, 2018, the USPTO’s performance on meeting the guarantee of 14 months to first action is on track to be flat compared to last year (for an overall compliance rate of 44%), while the USPTO’s performance on meeting the guarantee of 36 months to final disposal is on track to improve by 2% compared to last year (for an overall compliance rate of 84%). The PPAC commends the USPTO for this achievement.

The PPAC is further pleased to note that the USPTO is developing a plan to improve its compliance with the AIPA guarantees. Indeed, as stated by the USPTO at the November 9, 2017 PPAC Quarterly Meeting, the USPTO is developing a five-year plan with various components to improve compliance with the AIPA guarantees. The PPAC recognizes and appreciates the efforts of the USPTO to achieve compliance with the AIPA guarantees.

The PPAC has reflected on the USPTO’s thoughtful consideration of – and progress towards meeting – the AIPA goals in preparing its current recommendation. While the PPAC continues to believe that the AIPA guarantees should be adopted by the USPTO as its sole pendency goals, the PPAC recognizes and understands that the AIPA guarantees cannot be substituted for the 10/20 goals as long as the 10/20 goals have the status of Agency Priority Goals. Accordingly, for purposes of preparing its current recommendation, the PPAC treats the 10/20 goals and the AIPA guarantees as co-existing, with each being a part of the fabric of the USPTO’s operations.

D. PROSECUTION OPTIONS

The USPTO gives applicants a variety of options for controlling the pace of prosecution, including options for prioritizing or deferring examination and options for responding to a final office action. In this sub-section, the PPAC focuses on the most common of these options, with an eye to determining whether these options are helping applicants meet

their individual needs and whether these options would benefit from improvement.

1. Prioritizing Examination

During its review of USPTO operations, the PPAC has focused on a single option for prioritizing examination, specifically, Track One. An applicant can seek to take advantage of Track One for a new utility filing or a new RCE by filing a simple petition, paying a fee, and agreeing to comply with certain prosecution restrictions, such as limiting the total number of independent claims. Under Track One, the USPTO endeavors to provide an applicant with a qualifying petition a final disposition on the merits of its application within 12 months of the grant date of the petition. The USPTO limits Track One to 10,000 qualifying petitions per year.

The applicant community is consistently subscribing to the program and the USPTO is consistently meeting or exceeding its disposition goal. For example, in each of the past several fiscal years, more than 9,000 petitions were filed; in FY 2018, more than 9,000 petitions are likely to be filed as well based on the number of petitions filed through July 31, 2018. Also, the average time in FY 2018 for the USPTO to move from petition grant to final disposition is only 7 months as of July 31, 2018, which is far below the goal of 12 months.

The PPAC believes Track One is a welcome and simple vehicle for motivated applicants to obtain expedited examination and quickly issued patents. Such patents can be highly beneficial to those applicants who need financial support from investors for commercialization of their patented technologies. These applicants include solo inventors, start-ups, small businesses, and universities. The PPAC recommends that the USPTO continue to offer the Track One in future years and consider making Track One permanent.

2. Deferring Examination

During its review of USPTO operations, the PPAC has focused on two options for deferring examination, specifically, the Extended Missing Parts Pilot Program and Rule

103(d). Under the Extended Missing Parts Pilot Program, an applicant filing an original U.S. non-provisional application claiming the benefit of a U.S. provisional application filed within the prior year months may request a period of 12 months within which to pay search and examination fees. Under Rule 103(d), an applicant filing a U.S. non-provisional application may request a deferral of examination for up to three years from the application's earliest claimed filing date.

The applicant community is not taking advantage of either of these prosecution options to even a modest degree. Indeed, the USPTO has advised the PPAC that the USPTO receives only a few hundred requests for either option in a typical year. Moreover, the USPTO has advised the PPAC that many of the filed requests fail to comply with the requirements and cannot be granted.

The PPAC believes that the Extended Missing Parts Pilot Program and Rule 103(d) are potentially good vehicles for motivated applicants to defer examination – but they need improvement to ensure that their requirements are readily understandable by all applicants. In this regard, the PPAC recommends that the USPTO provide specific guidance to the applicant community on how to take advantage of these programs. This guidance could be in the form of a simple flow chart or checklist listing the elements of a grantable request. Also, the PPAC recommends that the USPTO add these programs to its listing of pendency initiatives on the USPTO Patent Application Initiatives Timeline accessible at <https://www.uspto.gov/patent/initiatives/uspto-patent-application-initiativestimeline>).

3. After-Final Programs

Recently, the USPTO has provided four options for responding to a final office action: traditional Rule 116 practice, the after final consideration pilot (AFCP) 2.0, the pre-appeal brief conference request, and the post prosecution pilot (P3). As of July 31, 2018, all of these options, except P3, are still available to applicants. The USPTO summarized the features of each of these options at the February 1, 2018 PPAC Quarterly Meeting.

Over the past year, the PPAC has reviewed these programs with the USPTO to determine whether to collapse the alternatives to traditional Rule 116 practice into a single alternative – and, if so, to identify the features of the single alternative for the benefit of applicants and the USPTO. The PPAC has reviewed the benefits, burdens, and costs of these programs with the USPTO from the perspective of applicants and the USPTO. As of the date of this Annual Report, the PPAC and the USPTO have not yet reached any conclusion to the review.

The PPAC encourages the USPTO to continue the review of the available after-final programs. In the PPAC’s view, applicants look to the USPTO to provide innovative and cost-effective options for prosecution after receipt of a final office action.

VI. SPECIAL PROJECTS

A. SELECT ISSUES FACING PRACTITIONERS AND THE PATENT RIGHT

1. The Office of Enrollment and Discipline—A New Way to Handle Discipline and Still Practice

In November 2017, the OED launched a two-year Pilot Diversion Program (Diversion Program) to provide remedial means for practitioners who have engaged in minor misconduct where the practitioner may be suffering from an addiction, health or negligent management issue. The program is called a “Diversion Program” because the practitioner’s discipline, as a result of the misconduct, is diverted where they can take restorative steps towards rehabilitation or have remedied a management issue.

The OED developed and launched the Diversion Program in response to a 2016 study sponsored by the American Bar Association and conducted by the Hazelden Betty Ford Foundation. The Hazelden study surveyed over 13,000 active attorneys, and found that approximately one-third of the respondents were classified as “problem drinkers” under the applicable diagnostic criteria. Furthermore, the Hazelden study found that a disproportionate number of those who qualified as “problem drinkers” were relatively young attorneys (respondents under the age of 30 or respondents who had been

practicing law for less than ten years). Those findings were confirmed by a separate survey of over 3,000 law students, which found that 43% of respondents had engaged in binge drinking in the prior two weeks. In addition, approximately 25% of the respondents in the Hazelden study stated that they had suffered from a period of depression at some point in their legal career.

In response, a task force of the ABA, National Conference of Chief Justices, and National Organization of Bar Counsel, among others, recommended that disciplinary systems implement a diversion program to provide troubled legal professionals with an alternative to discipline in appropriate cases. The OED joins over 30 states which utilize such diversion programs.

2. Criteria For Participation

The Diversion Program provides patent and trademark practitioners who have engaged in minor misconduct attributable to a physical, mental, or emotional health issue (i.e., addiction or depression) or law practice management issue (i.e., inadequate management practices) the opportunity to avoid formal discipline by implementing specific remedial measures. A practitioner's participation in the Diversion Program is intended to protect the public by providing the practitioner with an opportunity to rectify the underlying cause of the practitioner's misconduct, thus reducing the chance that the misconduct will recur or escalate.

To participate in the Diversion Program, a practitioner must not have not been publicly disciplined by the USPTO or another jurisdiction in the past three years, and must be willing and able to participate in the program.

In addition, the misconduct at issue must not: (1) involve the misappropriation of funds or dishonesty, deceit, fraud or misrepresentation; (2) result in or likely result in substantial prejudice to a client or other person; (3) constitute a "serious crime," as defined by 37 C.F.R. 11.1; or (4) be part of a pattern of similar misconduct or be of the same nature as misconduct for which the practitioner has been disciplined within the past five years.

Once it is determined that the misconduct at issue is eligible, other factors to be considered in determining whether diversion is appropriate in a particular case include: (1) whether the sanction is likely to be no more severe than reprimand or admonition; (2) whether participation is likely to benefit the practitioner and accomplish the goals of the program; (3) any aggravating or mitigating factors; and (4) whether diversion was already attempted. The OED's criteria for participation in the Diversion Program are based on the ABA Model Rules of Lawyer Disciplinary Enforcement.

3. The OED's Diversion Cases and Outreach

Since the OED's Diversion Program commenced, one practitioner has successfully completed the term of the diversion agreement, and the other is currently under diversion, which will be completed in December 2020. Although the OED has identified other instances in which a practitioner's misconduct was attributable to a substance abuse or similar issue, in such cases diversion was not offered because the misconduct did not meet the criteria for participation (i.e., the practitioner was convicted of a felony – which constitutes a “serious crime” – or the practitioner's conduct involved dishonesty or theft).

The OED has engaged in efforts to inform practitioners of the existence of the Diversion Program. The OED has included information about the Diversion Program in its regularly scheduled presentations to law students and practitioner seminars and webinars, and has participated in presentations regarding the program to the Federal Circuit Bar Association, the intellectual property law section of the Montana Bar, and the Midwest Intellectual Property Law Institute, among others.

B. SUPPLEMENTAL EXAMINATION—A TOOL RARELY USED

1. The Goals of Supplemental Examination

Supplemental Examination is patent post-grant proceeding which became available on September 16, 2012, as a result of new section 257 of Title 35, United States Code, as part of the AIA. The PPAC met with the CRU to better understand how the user

community was taking advantage of this new tool and whether it has had a significant impact on the protection of the patent right after issuance.

The goals of the Supplemental Examination are to improve patent quality and to help patent owners potentially inoculate a patent from an inequitable conduct charge should the owner want to enforce the patent in the future. Although *ex parte* reexamination and reissue may be available as well, only Supplemental Examination can cleanse a patent from an inequitable conduct claim.

2. **How Supplemental Examination Works**

The Supplemental Examination provisions of the AIA provide a patent owner with a mechanism to request that the USPTO consider, reconsider, or correct information believed to be relevant to the patent. Unlike *ex parte* reexamination practice, the information that the patent owner may request to be considered, reconsidered, or corrected in a Supplemental Examination proceeding is not limited to patents and printed publications. The “information” may include any information that the patent owner believes to be relevant to the patentability of a claim.

Within three months of the filing date of the request, the USPTO will determine whether any of the items of information presented in the request raise a “substantial new question of patentability” (SNQ) of any of the requested patented claims. If none of the items of information presented are determined to raise an SNQ, the USPTO issues a Supplemental Examination certificate indicating that the request did not raise an SNQ to the issued claims. This potentially is a positive result for the patent owner because the USPTO has determined that the new information does not affect patentability. If any of the submitted information in the request is determined to raise an SNQ to any of these requested claims, the USPTO issues a Supplemental Examination certificate indicating that SNQ is raised by the request and the USPTO orders *ex parte* reexamination of the patent.

3. Filings and Dispositions to Date

Supplemental examination has been little used to date. Simply stated, the user community is not taking advantage of this new tool. From FY 2013 to FY 2017 a low of 34 and a high of 59 requests annually were filed.

Of the Supplemental Examination requests filed since 2012, a SNQ was raised and *ex parte* reexamination was ordered in 71 percent of the requests. All SNQ determinations have been made within the statutory deadline or within three months of filing.

As of the end of FY 2017, the average time to conclusion of a reexamination proceeding ordered pursuant to Supplemental Examination request was just under 10 months from the initial filing date, when patent owner did not appeal the examiner's decision to the PTAB.

C. DESIGN PATENTS—A GROWING AREA OF PATENT PROTECTION

The PPAC gained insights this last fiscal year into the increased filings of design patent applications and the increased workload of TC 2900, where design patent applications are examined. The TC was very transparent about the challenges faced by the growing workload. Because of the recent increase in filings, and subsequent hiring, the TC has fewer primary examiners and more junior examiners as a percentage of its workforce than the other TCs.

1. Design Patent Protection

A design patent protects the way an article of manufacture looks – its shape and configuration, as well as any surface ornamentation applied to the article. More and more people are becoming aware of the value of design patents in the field of intellectual property. Additionally, industrial design is a growing field which is contributing to the success of many manufactured products. Industrial design focuses on the aesthetic and user-interface of manufactured products - blending form and function to make products more desirable.

2. Examination of Design Patents

All design patent applications are handled in TC 2900. The staff, as of July 31, 2018, consisted of 182 examiners managed by a TC director and 15 supervisory patent examiners, and assisted by a design practice specialist, a secretary, and an office manager. Additional help is provided by the centralized technical support staff in the Office of Patent Examination Support Services.

Design application filings continue to increase. As of the end of the third quarter of FY 2018 (June 23, 2018) the TC received 32,878 applications. This is a 5.7% increase over the same time last year, compared with utility serial filings, which rose by 1.2%.

To address the increasing workload, the USPTO has been hiring design examiners over the past five years. With the hiring freeze during FY 2017, TC 2900 was unable to hire so the staff decreased slightly due to normal attrition. Additional design examiners will be hired in the coming months.

As of July 31, 2018, the 182 examiners were comprised of 80 primary examiners and 102 junior examiners. The junior examiners are becoming more and more experienced and will be moving up in grade, and thus producing an increasing number of work products in the future.

The TC finished the third quarter of FY 2018 with an inventory of 45,493 applications awaiting a first action. As of August 8, 2018, 33,584 first actions had been completed in FY 2018. The TC is not quite at the point where they act on more applications than received in a given year. However, with examiner promotions, hiring additional examiners, and the availability of overtime, the TC inventory is expected to be reduced in the future.

As of the end of the third quarter, the time period from receipt of a design application to a first action is 12.9 months. The TC total pendency is 19.2 months.

3. **Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs**

On the international front, the Hague Agreement is a system of international registration of industrial designs – a single design application capable of being registered in 69 contracting parties. Offices of contracting parties examine the published international registration, if required under their respective laws. The United States became a member in 2015.

The Hague System is primarily a procedural arrangement and it does not determine the conditions for protection, the refusal procedure applied when deciding whether a design may be protected, or the rights that result from protection. Those issues are governed by the law of each contracting party that has been designated.

The TC currently receives between 150 and 250 Hague applications per month. The total Hague filings per year has increased from 159 in FY 2015, the year the United States joined, to 2,127 in FY 2017 and 73% were refusals. As of July 31, 2018, 1,680 applications have been received so far in fiscal year 2018, and 2,041 applications have been examined with a first action pendency of 10.8 months. Of the first actions done, 34% were first action allowances, 41% were refusals, 21% restrictions, and 4% *Ex Parte Quayle* actions.

D. PLANT PATENTS—PROPOSED LEGISLATION AFFECTING PROTECTION

1. Background

Plant patents are provided pursuant to 35 U.S.C. §§ 161-164. Section 161 provides that “[w]hoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state may obtain a patent therefor, subject to the conditions and requirements of this title.” Under this provision, patentability is limited to asexually reproduced new and distinct

plant varieties. Plant patents issued by the USPTO stand distinct from the plant breeders' right (PBR) certificates issued by the U.S. Department of Agriculture's PVPO. A plant breeder who has sexually reproduced a variety may make application to the PVPO for a PBR certificate. An issued certificate extends exclusive rights to its holder over the sexually reproduced variety, similar to a patent right. Since the patentability of plants has received little attention, the PPAC's Special Projects Subcommittee sought to learn more about this facet of the U.S. patent system.

Within the USPTO, plant patents are examined in TC 1600, Art Unit 1661. The entire unit consists of one director, one supervisory patent examiner, and seven patent examiners. From FY 2013 to FY 2017, plant patent filings have ranged from about 1,100 to just over 1,300 per year.

The USPTO's Office of Policy and International Affairs is engaged in two international fora that concern plant IP (both plant & utility patents and plant variety protection certificates administered by the U.S. Department of Agriculture). The USPTO serves as the lead for the U.S. Government delegation to the International Union for the Protection of New Varieties of Plants (UPOV—from the French acronym). Through this forum, the USPTO is involved in projects that benefit US plant-IP stakeholders, for example, programs that facilitate harmonization in filing procedures for securing plant-IP throughout the world.

The USPTO also serves as technical experts on the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA). Provisions of the ITPGRFA require that sensitivities surrounding IP be informed by technical experts, such as the standard material transfer agreement that operates under the treaty. Also, the provisions on "Farmers' Rights" are subject to much international debate, and it is imperative that the U.S. ensure rights holders' perspectives are accounted for in those discussions.

2. Pending Legislation

Pending legislation has the possibility to affect subject matter that could be plant patented. In the 2018 Farm Bill (H.R. 2) it is proposed to widen the scope of the Plant Variety Protection Act (PVPA) (which offers the PBR certificate, distinct from patents), administered by the U.S. Department of Agriculture's PVPO, to include asexually propagated plants. At present, the PVPA only allows for sexually reproduced plant varieties to be protected. If enacted this new right, administered by the PVPO, would compete with the patents issued by the USPTO under 35 U.S.C. § 161. The USPTO expects a small impact, financially or otherwise, from such a change if enacted into law.

E. THIRD-PARTY SUBMISSIONS—A NEW TOOL

The PPAC inquired whether third-party submissions are being used by the user community and whether such submissions are helpful to examiners.

1. Background

The AIA enacted section 35 U.S.C. § 122(e), which provides a mechanism for third parties to submit patents, published patent applications, or other printed publications of potential relevance to the examination of a patent application. The submission includes a concise description of the asserted relevance of each document submitted. This new provision was effective on September 16, 2012.

2. Use to Date

Since September 16, 2012, the USPTO has received over 7,000 submissions. More than 5,600 submissions were deemed proper and more than 1,600 were deemed improper. Submissions were deemed improper mainly due to the inclusion of improper opinions/comments and format inaccuracies, all of which were eligible for revision and resubmission.

In a February 2018 review of the proper submissions, over 18,000 documents had been submitted to date. Over 2,240 unique submitters were identified and on average, approximately three pieces of prior art were provided in each submission.

The USPTO recently conducted a survey of 720 sampled applications where a third party submission had been considered by an examiner. Of these, 305 applications contained at least one office action and utilized at least one piece of submitted prior art. The USPTO currently has no plans to alter the current third party submission program.

VII. INTERNATIONAL COOPERATION, WORK SHARING, POLICY DEVELOPMENT AND OUTREACH

A. TECHNICAL AND PROCEDURAL HARMONIZATION: INTERNATIONAL COOPERATION AND WORK SHARING PROGRAMS

1. Engagement with IP5 and ID5 Offices

The IP5 Offices¹, a forum of the five largest patent offices, continue to meet regularly at the Heads and Deputy Heads level and at the Working Group Level. In the IP5, there are currently four Working Groups. Work Group 1 (WG1) deals with classification and related topics, including CPC. Work Group 2 (WG2) deals with IT-supported business practices, including Global Dossier and Priority Document Exchange. Work Group 3 (WG3) deals with work sharing and quality, including the Patent Prosecution Highway (PPH). The Statistics Work Group deals with the annual compilation of patent statistics for the IP5 Offices.

In June 2018, the USPTO hosted the IP5 Heads meeting in New Orleans, Louisiana, where the IP5 Offices discussed how they could continue to advance their efforts toward the changing global patent landscape and evolving user needs. The Heads of the IP5 Offices endorsed the work being done on the IP5 initiatives, including the comprehensive project evaluation led by the USPTO as well as the classification of emerging technologies, continued and future planned developments in Global Dossier, harmonization of patent practices and procedures, and enhanced work sharing. The IP5 Offices also met with representatives of industry groups from the five regions,

¹ EPO, JPO, KIPO, CNIPA and USPTO are collectively known as the “IP5 Offices.” In the summer of 2018, the State Intellectual Property Office of the People’s Republic of China (SIPO) changed its name to the China National Intellectual Property Administration (CNIPA).

known collectively as the “IP5 Industry”, to update them on important recent developments and discuss IP topics of a strategic nature, specifically quality and the further development of IP5 cooperation. Both the Heads of Office and industry representatives pledged to maintain an open dialogue on the future direction of IP5 cooperation and strategic topics of importance to both groups.

Another global effort is the ID5 Industrial Design Forum (ID5), which brings together the five largest design offices to implement global best practices in relation to industrial design protection. The USPTO is currently leading projects in the ID5 on effective use of a grace period, partial design practice, and protection of designs in new technologies – topics of critical interest to U.S. stakeholders.

2. Patent Cooperation Treaty (PCT) - Systemic Improvement

The PCT Working Group, at its most recent session, agreed to send proposed amendments of the PCT Regulations to the PCT Assembly for adoption, which will provide for the earlier start of international preliminary examination under Chapter II of the PCT. The Working Group is exploring future development of the PCT system. Emphasis will be placed on legal and institutional issues, the technical (IT) environment, financial issues and quality. Other issues being explored include the incorporation of missing elements or parts, a new sequence listing standard, United Nations sanctions and measures to reduce exposure of PCT fee income to movement in currency exchange rates. Efforts are being made in the IP5 to arrive at unified, coordinated positions which can be presented at the PCT Working Group.

The number of international applications under the PCT entering the national phase in the USPTO under 35 U.S.C. § 371 has been increasing. From 2012 to 2017, the number of national stage entries in the United States has increased by 32%. Notably during that period, the national stage entries in the United States from China have increased by 119%.

3. **Work Sharing**

The USPTO considers work sharing to be one of the most successful ways to both increase certainty of intellectual property rights as well as to reduce costs. Work sharing brings forth many benefits, including efficiency of examination and further improvement of patent quality, not only to the stakeholders but also for the entire intellectual property system.

The USPTO is a global leader in developing work sharing programs and tools, which result in efficiencies for patent applicants and examiners. One example of this is the leveraging of foreign language skills and work of the USPTO's foreign office counterparts. In the U.S., patentability hinges upon the prior art, not just in the U.S. and not just written in English, but to prior art across the globe. Worldwide patent quality increases when the public and examiners get access to the most relevant prior art, not only in their native language, but also in other languages as well.

To continue in furthering global work sharing and expanding efforts among IP offices, USPTO will be jointly hosting an international examination cooperation conference with KIPO in November 2018 in Seoul, Korea. The expectation is that this conference will not only begin to map out the future of global work sharing, but will also be a stepping stone for other IP offices to join and expand their current efforts.

a. Global Dossier – Update

The USPTO continues its stewardship of the Global Dossier, a set of business services that provide a single point of access to related applications filed in multiple patent offices (<https://globaldossier.uspto.gov>). In FY 2018, the number of accesses to the Global Dossier services exceeded the total number of accesses in 2017 with over 102,000 average daily public accesses and over 13,000 average daily USPTO examiner accesses. These numbers, however, do not represent individual users of the platform but rather the number of different application data requests made to the platforms. In FY 2018, the USPTO also received over 3.65 million requests for data from examiners in the other IP5 Offices compared to over 3.58 million requests in FY 2017.

In FY 2018, the USPTO also continued to update the Global Dossier's functionality and services by providing a Citation List service, which provides a list of all references cited in a patent family in a single list, allowing users to easily identify potentially relevant art. In addition, enriched citations, when available, can also be viewed in Global Dossier, allowing users to determine the relevancy of cited references.

b. Patent Prosecution Highway (PPH)

The USPTO continues to expand its Patent Prosecution Highway (PPH) programs, which have proven to increase efficiencies and decrease costs for applicants filing in multiple offices. The USPTO currently has PPH agreements with 34 other worldwide IP Offices; 26 IP Offices are under the Global PPH (GPPH) program and 8 other IP Offices are under bilateral PPH agreements. The Visegrad Patent Institute (VPI) is the latest IP Office that agreed to join the GPPH program with the USPTO in FY 2018. In addition to negotiating new agreements with partners where the field of technology for a PPH agreement was limited, the USPTO has also worked to expand the field of such technology.

As of July 2018, the number of cumulative PPH applications with petitions reached approximately 53,900 with the USPTO receiving an average of 549 requests per month. This was an increase of 13.5% compared to last fiscal year. The data continues to illustrate a steady growth rate of filings and an apparent continued acceptance and support by the stakeholder and user community of this program.

With respect to a backlog of undecided PPH petitions before the USPTO, the USPTO has addressed this delay beginning in 2017 and continuing through 2018 by increasing the staff dedicated to such petitions. Once the backlog was addressed, the Petitions Office has continued to monitor the backlog and adjust staffing, as necessary. In FY 2019, the USPTO will be engaging with stakeholders through various forums to discuss and gather feedback on the PPH program in general in an effort to further fine tune the program and to ensure that stakeholders are receiving the maximum envisioned benefits.

c. Collaborative Search Programs

The USPTO has worked closely bilaterally and within the IP5 to developing new, innovative collaborative search programs.

(i) Expanded Collaborative Search Pilot (CSP) Program

On November 1, 2017, the USPTO along with JPO and KIPO expanded the Collaborative Search Pilot (CSP) program for another three years. (See link at <https://www.uspto.gov/patents-getting-started/international-protection/collaborative-search-pilot-program-csp>) This expanded CSP program is designed to accelerate examination and provide the applicant with more comprehensive prior art searching by combining the search expertise of examiners at the USPTO and JPO or KIPO, before issuing an office action in the patent application. As of September 30, 2018, the USPTO has seen an increase in participation and interest in the expanded CSP program. The USPTO is continuing to work closely with JPO and KIPO to further enhance the program. In addition, the offices are engaging in discussions with other IP offices as to the interest and feasibility of further expanding CSP program.

(ii) PCT Collaborative Search and Examination (PCT CS&E) Pilot

The PCT Collaborative Search and Examination (CS&E) Pilot improves international work sharing by streamlining examination and search procedures for examiners in multiple countries. The PCT CS&E Pilot allows examiners from the IP5 Offices (in their capacity as International Authorities under the PCT), with different working languages, to collaborate on the search and examination of a single international application. The result is an international search report (ISR) and written opinion (WO) from the chosen International Searching Authority (ISA) based on contributions from all participating offices.

The goal of the PCT CS&E Pilot is to test user's interests as well as the operational and quality standards via an electronic collaboration tool or platform for use by examiners in multiple offices. A further goal is to determine what effect collaboration has on the quality of their work products and their effects on the respective national phase application process and examination.

For applications in the PCT CS&E Pilot, the selected ISA will perform a search and prepare a draft ISR and WO. The draft ISR/WO and a record of the search will be shared with the other offices (i.e., peer offices). The peer offices will then review the draft ISR/WO, perform additional searching, as deemed necessary, and provide comments back to the main ISA, which will then prepare the final ISR/WO, taking into account the peer contributions. The sharing of documents and applications between offices will be done through WIPO's ePCT system.

The PCT CS&E Pilot began accepting applications on July 1, 2018, and will treat 500 applications (100 applications per office in their capacity as the main ISA, 400 applications per office in their capacity as a peer office) over approximately two years. As of September 14, 2018, the EPO in their capacity as the main (or selected) ISA, has reached their first year quota of applications in the English language. The EPO will start accepting applications filed in French or German into the PCT CS&E Pilot in January 2019 and additional applications filed in English in July 2019. A relevant notice regarding the PCT CS&E Pilot can be found here: <https://www.epo.org/service-support/updates/2018/20180914.html>.

4. Cooperative Patent Classification (CPC)

During FY 2018, the USPTO continued to maintain the Cooperative Patent Classification (CPC) system with its partner, the EPO, with 127 revised areas of the CPC scheme. Internally, at the USPTO, work is underway to develop and implement routing of the new incoming CPC system. The further development of the CPC automation tools will provide examiners with the increased ability to collaborate between offices, maintain and revise schemes, publish revisions, enhance classification data

exchange systems and continue to update classification and search tools for examiners.

As of September 2018, 27 patent offices classify in CPC, up from 19 offices last year, and over 32,000 examiners from 45 offices use CPC for searching. As of September 1, 2018, over 52 patent million documents were classified in CPC and approximately 99.7% of all USPTO, EPO and WIPO documents are classified in CPC. The USPTO continues to support CPC as a way to increase greater work sharing capabilities across IP offices, thus improving patent quality globally.

B. POLICY DEVELOPMENT AND OUTREACH

1. USPTO - Development of Intellectual Property Policy in Trade Agreements

Throughout FY 2018, the USPTO provided extensive policy advice and technical expertise on domestic and international intellectual property matters, including patents, industrial designs, and protection for undisclosed test and other data as well as trade secrets and enforcement, to multiple federal agencies in the administration. Such agencies included the USTR, the Office of the U.S. Intellectual Property Enforcement Coordinator, and other bureaus of the DOC. The USPTO also assisted the USTR in the negotiation of trade agreements such as the U.S.-Mexico-Canada Agreement (USMCA), on Trade Policy Reviews undertaken at the World Trade Organization (WTO) and on the proposed accessions of over 20 countries to the WTO. In addition, the USPTO assisted the USTR in the preparation of its annual review of global developments on trade and intellectual property called the Special 301 Report. The Special 301 Report identifies U.S. trading partners who have not provided appropriate intellectual property protection and enforcement or market access for U.S. rights holders. The USPTO assisted in its preparation by providing extensive information on the state of intellectual property protection and enforcement in many countries.

2. WIPO Negotiations

The USPTO continues to lead policy-based discussions in WIPO committees, such as

the Standing Committee on the Law of Patents (SCP), the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT), and the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC).

3. IP Attaché Program – Update

The USPTO IP Attaché Program continues to expand the Office’s ability to advance U.S. Government IP Policy positions abroad for the benefit of U.S. stakeholders. Based on additional feedback from the PPAC, the IP Attaché Program continues to reach out—both domestically and internationally—to the corporate community, academia and other U.S. stakeholders. These outreach efforts raise awareness of the Attaché Program and attaché services, and moreover, bring to light the issues and concerns that are paramount to the community.

U.S. industry continues to work with members of Congress to find a way to elevate the diplomatic rank of individual attachés serving abroad. Elevating the current diplomatic rank of USPTO’s IP attachés from First Secretary to Counselor would enable the attachés to accomplish their mission more effectively by giving them greater access to senior host government officials, Ambassadors at their respective embassies, and senior industry representatives. Moreover, a rank elevation would signal to trading partners that IP is an Administration priority and that the U.S. is determined to conduct high-level, sustained engagements on IP rights matters to advance U.S. business interests worldwide. Possible vehicles for achieving this include amending a current statute, such as the Trade Act of 1974 or the Foreign Service Act of 1980, or introducing language into new legislation.

4. China

The USPTO China Team, a group of attorneys with expertise on China intellectual property matters, works with three IP Attachés based in Beijing, Shanghai, and Guangzhou and their local staff, to improve the legal environment for U.S. companies

and rights holders doing business in China. The China Team collaborates regularly with other agencies, including USTR, the International Trade Administration, IPEC, the U.S. Department of Justice, the U.S. Department of Homeland Security, the U.S. Department of State and the National IPR Coordination Center, in assisting rights holders to better protect and enforce their IP in China. The China Team also engages directly with counterpart IP agencies in China to advocate for substantive legal changes to improve China's IP environment. The China Team's Resource Center, established in 2014, is the research arm of the China Team. It develops and supports empirical data-driven decision- and policy-making, working closely with the Office of the Chief Economist.

As part of its extensive outreach efforts, the China Team works with stakeholders in the U.S., China, and other locations, and assists U.S. companies and rights holders, particularly small- and medium-sized entities. Besides conducting programs aimed at addressing a particular IP issue or concern, the China Team presents "China IP Roadshows" throughout the U.S. in cooperation with the USPTO regional offices, to educate local businesses on IP registration, protection, and enforcement in China. In FY 2018, the USPTO conducted 12 China IP Roadshows. The programs, which were held at the USPTO regional offices and other cities throughout the U.S., featured U.S. government officials, academic experts, law firm practitioners, and representatives of SMEs doing business in China.

VIII. LEGISLATION

A. INTRODUCTION

To date, Congress has not advanced any substantive patent law-related legislation during the 115th Congress (2017-2018). However, various patent issues were addressed in hearings conducted by the House and Senate Judiciary Committees and were the subject of several introduced bills.

B. CONGRESSIONAL HEARINGS

A wide range of patent issues was discussed at USPTO Director Iancu's nomination

hearing in November 2017. His nomination was unanimously approved by the Senate Judiciary Committee in December 2017 and subsequently approved unanimously by the full Senate in February 2018.

Soon after, Director Iancu provided testimony and responded to questions at a Senate Judiciary Committee oversight hearing on the USPTO in April 2018 and at a similar House Judiciary Committee hearing in May 2018. Issues discussed at the oversight hearings included the current state of patent subject matter eligibility (Title 35, Section 101), patent quality and pendency, the conduct of, and standards for, PTAB post-grant review proceedings, China intellectual property concerns, workforce management at the USPTO, promoting diversity in STEM fields and intellectual property protection provisions in international trade agreements.

On March 20, 2018, the House Judiciary Subcommittee on Courts, Intellectual Property and the Internet conducted a hearing captioned “Assessing the Effectiveness of the Transitional Program for Covered Business Method Patents.” The hearing focused on the transitional program for covered business method patents, administered by the USPTO’s PTAB, the GAO’s recent assessment of that program and arguments for and against extension of the program. Other hearings, including two at the House Small Business Committee, also addressed intellectual property-related issues.

C. PENDING LEGISLATION

The following is a summary of some of the substantive patent law-related legislation introduced during the 115th Congress (2017-2018).

H.R. 6557. Inventor Protection Act. This bill would amend title 35 to create special litigation rules and protections for "inventor-owned" patents.

H.R. 6370. The Targeting Rogue and Opaque Letters (TROL) Act. This bill provides that certain bad faith communications and/or demand letters in connection with the assertion of a U.S. patent by non-practicing entities are unfair or deceptive acts or practices and directs the Federal Trade Commission and the state Attorneys General to

impose appropriate fines.

H.R. 6264. Restoring America's Leadership in Innovation Act of 2018. This bill would reverse many changes in the AIA, such as abolishing the PTAB and post grant reviews, amending Section 101, and codifying the presumption of validity for granted patents.

S. 3042. H.R. 2. Agriculture Improvement Act of 2018. This bill would amend the Plant Variety Protection Act to "asexually" into the Act, H.R. 5340.

Support Technology & Research for Our Nation's Growth and Economic Resilience (STRONGER) Patents Act of 2018 S. 1390. Support Technology & Research for Our Nation's Growth and Economic Resilience (STRONGER) Patents Act of 2017. These bills would amend PTAB procedures and rules to increase fairness, permit temporary injunctions while infringement court cases are pending, include universities and non-profits as eligible micro-entities, and create a revolving, no-year fund for USPTO fee revenue S.2514.

Preserving Access to Cost Effective Drugs (PACED) Act. This bill would amend Title 35 and Title 19 to provide that a patent owner may not assert sovereign immunity as a defense in certain actions before the USPTO and ITC. S.1948. A Bill to Abrogate the Sovereign Immunity of Indian tribes as a Defense in Inter-Partes Review of Patents. This bill would hold that tribal sovereign immunity cannot be used to block the USPTO's review of a granted patent.

H.R. 720. Lawsuit Abuse Reduction Act of 2017. This bill would require monetary sanctions for Rule 11 litigation violations.

The PPAC actively reviews and advises the USPTO on proposed legislative and administrative changes, including those aimed at patent eligibility, patent quality issues and potentially abusive patent assertion activities as well as other adjustments to the patent laws and the USPTO's fee setting authority. The PPAC will continue to monitor and consult with the USPTO on any such changes.

D. OTHER ISSUES

The PPAC is pleased that the John S. McCain National Defense Authorization Act for Fiscal Year 2019 was signed into law on August 13, 2018. The Act includes a provision that extends the USPTO's authority to conduct a telework program pursuant to the Telework Enhancement Act of 2010 (TEAPP). The PPAC recognizes that TEAPP, and telework in general, has been very successful as a business strategy for the USPTO. It has allowed the USPTO to build the professional workforce it needs to execute its mission, limit real estate expenses and generally be more productive.

The PPAC is pleased that Congress extended the USPTO's fee setting authority granted by AIA, which includes the important role that the PPAC plays in soliciting public feedback on proposed adjustments. Congress extended the USPTO's fee setting authority until September 16, 2026, by passing the Study of Underrepresented Classes Chasing Engineering and Science Success (SUCCESS) Act of 2018, which was signed into law in mid-October 2018.

The PPAC wishes to note that the USPTO's IP Attaché Program is an important element of the USPTO international outreach efforts. There is a concern that the USPTO IP Attachés do not have adequate access to their foreign government counterparts. A proposal to elevate their rank has been under discussion for several years and is supported by former Ambassadors, Congress and industry.

**UNITED STATES
PATENT AND
TRADEMARK OFFICE**



**PATENT PUBLIC ADVISORY COMMITTEE
FEE SETTING REPORT**

OCTOBER 29, 2018

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Background

The USPTO is entirely funded by fees collected from its users and does not rely on the federal government's tax revenues. In the Leahy-Smith America Invents Act of 2011 (AIA), the USPTO was granted the authority to set its own fees, but only after following a structured process of collecting and considering public input. Following a biennial fee review conducted within the agency, the USPTO sent a fee adjustment proposal to the PPAC on August 8, 2018. As provided by the statute, the PPAC held a public hearing on September 6, 2018 at the USPTO in Alexandria, Virginia and collected public input both at the hearing and in the form of written submissions. This PPAC/USPTO Fee Setting Report reflects the PPAC's views after considering the written submissions and hearing testimony. After considering this Report, the USPTO will issue a Notice of Proposed Rule Making (NPRM) including a fee proposal incorporating any revisions made to reflect the PPAC's input. After collecting and considering further public reaction to the NPRM, the USPTO will issue a Final Rule specifying adjusted fees. It is currently expected that the new fees will go into effect in early 2021.

The fee adjustment includes targeted adjustments to issue and maintenance fees, PTAB fees, significant increases to accelerated design patent examination fees, and surcharges for late payment of maintenance fees. There are also new fees assessed on practitioners to maintain registration with the USPTO, to appear *pro hac vice* before the PTAB, and for filing non-provisional applications in a format other than DOCX. Other fees are being raised by 5% across the board.

Criteria for Analyzing the Fee Adjustment Proposal

In preparing its recommendation on the USPTO's fee adjustment proposal, the PPAC has considered the appropriateness of both the aggregate proposed fee increase and the individual fee increases.¹ Assessing the aggregate proposed increase involves considering the USPTO's overall needs to fulfill its mission of supporting the country's innovation system in the coming years, while maintaining a robust operating reserve. Fulfilling Director Iancu's plan to achieve reliability and certainty in the patent system will require continued improvements in the examination process. The IT system must be renewed to assure its operational reliability but also will require improvements to give Examiners the tools that they need to improve patent quality. Also, given the three years that will have passed between the implementation of the fee increase in January 2018 and the projected implementation of the one envisioned in the current proposal, the USPTO will naturally look for revenue to address expected cost increases over that period.

¹ One received comment (https://www.uspto.gov/sites/default/files/documents/David_Boundy.pdf) has challenged the USPTO'S authority under the statute to conduct the fee setting process at this time. The PPAC does not see rendering legal advice and analysis as part of its role in the fee setting process and recommends that this comment be addressed by the USPTO directly.

Whether the aggregate fee increase makes sense depends on whether the USPTO's services provide the right amount of value to the country, whether it is prioritizing the right expenditures to fulfil its mission, and whether it is operating efficiently. It is also appropriate to consider the life cycle costs of getting and maintaining a patent and evaluating the incentive effects on applicants. Will worthwhile inventions continue to be protected? Also, will filings be discouraged to the extent that revenue expectations are not met?

Increases proposed for individual fees as well as newly introduced fees can be judged on the basis of fairness, their effect on applicant behavior, and whether they are in fact likely to raise the expected revenue. However, if the proposed aggregate increase is deemed to be beneficial, criticism of individual fee increases inherently implies that other fees should be raised to compensate.

Aggregate Fee Increase

The PPAC supports the USPTO in seeking the revenues it needs to increase the reliability and certainty of patent rights, provide timely examination, improve and secure its IT infrastructure and adequately fund its operating reserve. In its Annual Report, the PPAC provides specific recommendations regarding IT, examination quality and pendency, as well as the operating reserve. As a general matter, we believe that increased revenue for the USPTO will be important to fulfill its Strategic Plan and implement the recommendations of the PPAC.

Some commenters expressed concern about the value provided by patent examination given the vulnerability of patents being challenged in the post-grant proceedings provided by the AIA. To address stakeholder concerns about the survivability of patent rights in post-grant proceedings and litigation, the USPTO should explain how additional revenue will be used to enhance patent quality through improved search and examination. The USPTO should also be clear as to how it will use revenues to modernize its IT infrastructure to increase its stability and scalability, and to strengthen security, as well as to support more effective examination processes.

Issue and Maintenance Fee Increase and Front Loading

The PPAC supports these fee increases and appreciates the rationale for weighting the increases toward the issue fee and first stage maintenance fee. Funding for the examination work of today should not be overly dependent on whether or not patent owners decide to maintain patents at later stages. Indeed, one of the comments expressed the view that fee increases should be weighted more toward the front end of the patenting process (i.e., filing, search, and examination) and away from the back end of the patenting process (i.e., issue and

maintenance fees). The current proposal envisions preserving the current weighting between front end and back end.

In FY 2017, patent maintenance fees represented 44% of total patent fee collections, a percentage that is expected to increase in the coming years due to an increasing number of patents subject to maintenance fee payments. First stage maintenance fees were 29% of total maintenance fees in FY 2017 and are expected to decline in the coming years. The proposed fee increase would largely restore the percentage of maintenance fees that are attributable to the first stage. The USPTO should carefully review, particularly, the first stage maintenance fees for elasticity concerns to assure that revenue expectations will be met without unduly encouraging the non-maintenance of otherwise viable patent rights.

Post-Grant Proceedings

The PPAC supports the increases to the fees in post-grant proceedings. Fees for the PGR, IPR and CBM proceedings must, by statute, be reasonable, which is defined as taking into account the cost of conducting these proceedings. It is important that these proceedings receive the care necessary to assure fairness and transparency to petitioners and patent owners. The PPAC also recognizes and appreciates the impact of the *SAS Institute v. Iancu* and *Aqua Products v. Matal* decisions on the workload of the PTAB and the additional resources that will be required to manage the increased workload. The PPAC encourages the PTAB to conduct data collection and analysis on the impact of these decisions on its processes and share the results with the stakeholders so that they can better appreciate the need for increased fees.

The PPAC also supports the new fee for *pro hac vice* admissions. It makes sense to recover the costs of processing these petitions from those in need of *pro hac vice* admission rather than from overall trial fees.

Non-DOCX Filing Surcharge

The PPAC supports the surcharge on non-DOCx filings. Although some comments were skeptical of the surcharge and the preference for DOCx, this format is readily available and a reasonable choice for a standard filing format. The USPTO should have the flexibility to incentivize applicants to use filing formats that maximize efficiency for both the USPTO and its stakeholders.

Fee for Late Maintenance Fee Payments

The PPAC believes that the magnitude of increase of the surcharge for late maintenance fee payments may be excessive. The rationale that such fees are consistent with international

practice is understood. However, such a large surcharge is not justified by extra expense on the part of the USPTO. The PPAC agrees that it is desirable to have timely payment of maintenance fees to make clear to the public when patent rights will be extended and therefore agrees with a meaningful incentive to encourage timely payment. But as long as extensions of time are available, the public cannot rely on the expiration of a patent for which the maintenance fee is overdue, until the period for which an extension is available has expired.

If the goal is to discourage late payments, then perhaps the USPTO should provide services to individuals and small businesses to make it simple to stay current on deadlines and pay in a timely fashion. For example, the USPTO could provide a reminder system for small and micro entities with easy to use invoicing and payment.

Requests for Expedited Examination of Design Patent Applications

The PPAC cannot support the full increase in the fee for expedited examination of a design application, without sufficient justification for such a large increase. Design examination costs are generally understood to be lower than utility examination costs, which creates doubts among stakeholders about how such a large increase can be justified.

Annual Active Patent Practitioner Fee

The proposed practitioner fee attracted numerous, largely critical, comments. In principle, the PPAC supports an annual practitioner fee but requests further information from the USPTO about how the anticipated fee collections will offset the cost of operations of the OED and to what extent. At this time, there is not sufficient clarity as to the procedures for collection of the fee, the penalties for late payment of the fee and the ability of the Director to reinstate a practitioner who has paid the fee late. The PPAC needs more information to ensure that the new fee is reasonable and imposed in a manner that is easy to pay and for which late payment can be excused.

The PPAC supports the annual registration fee in order to make certain that the roll of registered practitioners is up-to-date and to help defray the cost of operating the OED. Many practitioners are not aware that they must notify the OED of address changes. The surveys conducted by the OED have not proven effective in this regard. The user community relies on the listing of active registrants on the USPTO's website as a reliable source of registered patent prosecution practitioners and PTAB counsel to assist them before the USPTO. The OED currently is funded by a mix of patent and trademark fees. The annual registration fee would better align the costs with those who receive the benefits of the services that OED provides.

Those practitioners who are also lawyers are aware of the annual dues requirements for their state bars and the OED fees would not create an unreasonable burden. The goals of OED are to

protect the public and to protect the integrity of the profession. The USPTO is recommending a change that is consistent with the fees charged by the many state bars to ensure the same goals. However, those practitioners who are agents rather than attorneys may be more burdened by the new fees. The USPTO should consider whether lower fees are warranted for agents.

CLE Discount

The PPAC supports the goal of improving the services provided by the patent bar to the public. However, it is not clear whether encouraging CLE will in fact bring about this desired result. More information supporting the effectiveness of such a CLE incentive would be helpful. Also, there are reasonable questions left to be answered as to what kind of content and providers would be deemed qualified to deliver the CLE. Providing effective services as a member of the patent bar requires both technical and legal knowledge. Would technical seminars qualify as continuing education for patent practitioners?

It is worth considering whether non-lawyer patent agents should be required to take CLE to obtain the discount given that they are not otherwise subject to a CLE requirement by state bars and cannot give legal advice in any event.

Conclusion

To support its role in the country's innovation system, the USPTO requires adequate funding. Timely, high quality search and examination require an appropriately compensated work force supported by state of the art and reliable IT infrastructure. Achieving reliability and certainty in patent rights is not cheap. But the consequences of having the USPTO issue patent rights that cannot be relied upon may be even more expensive. The expectations of patent owners are frustrated, innovation is hindered by uncertainty about which patents are in fact valid and should be either licensed or avoided, and unnecessary litigation consumes resources.

The USPTO has not yet presented an aggregate expected revenue increase for the fee proposal. However, consistent with the USPTO's Strategic Plan and the PPAC's own recommendations as set out in the PPAC's FY 2018 Report, the fee adjustment proposal does not seem excessive in the aggregate. Between the previous fee increase implemented in 2018 and the new one envisioned for early 2021, there will have been several years of cost increases. The PPAC is recommending a significant boost in the operating reserve for patents to assure robustness in the face of fluctuations in revenue or interruptions in appropriation authorization. The PPAC is also highlighting the need to assess and improve the quality of patent search. The recent outage highlighted the urgency and imperativeness of renewing IT systems to bring their reliability to acceptable levels to meet stakeholder needs. Further improvements are needed to support search and examination. The search capability provided to examiners today does

not match what is available to some of their international peers and is insufficient to support Director Iancu's objective of reliable and certain patent rights. The case for fee increases would be further bolstered with explanations of how additional revenue will support desired improvements.

As noted above, the PPAC has criticized some individual fee increases and asked for further information about others. It is believed that the criticized fees account for a relatively small portion of the additional revenue that would be garnered by the overall proposal. An alternative would be selective further increases to filing and examination fees or maintenance fees to achieve the same projected revenue increase.

The PPAC views the biennial fee review process as successful in providing the USPTO the autonomy it needs to set its own fees, while importantly considering input from the public. The USPTO is in the best position to assess its own needs and balance the tradeoffs in setting individual fees. The PPAC is pleased that the fee setting authority provided by the AIA has now been extended until September 2026 by the SUCCESS Act (*pending Presidential signature*).

The PPAC notes with appreciation the efforts of the USPTO staff in conducting the biennial fee review and developing the fee proposal that we have reviewed. The PPAC also thanks all of those in the public who submitted comments and participated in the hearing on September 6th. We hope that the end result will be a fee structure that addresses the user community's concerns as well as expectations regarding the USPTO's operability and functionality including remedying the shortcomings in the USPTO's IT systems and providing the capabilities that the USPTO needs to fulfill its goal of reliable and certain patent rights.



MARYLEE JENKINS, CHAIRPERSON

Ms. Jenkins is a partner in the New York office of Arent Fox LLP and served as head of the New York office's Intellectual Property Group for over twelve years. Marylee counsels Fortune 500 companies, international businesses and emerging technologies regarding intellectual property disputes and strategies, portfolio enforcement and management and technology development and protection. Her clients represent a variety of industries including computer hardware, software, Internet and various computer-related technologies; electrical and electromechanical devices and systems; the information and financial sectors; biotechnology; consumer products; fashion design; health care; medical devices; and real estate and construction. Ms. Jenkins is a past Chairperson of the American Bar Association's Section of Intellectual Property Law and a past President of the New York Intellectual Property Law Association. She is currently a member of the ABA Standing Committee on the Federal Judiciary, which evaluates the qualifications of candidates for nomination by the President of the United States to the federal bench and is Co-Chairperson of New York Law School's Innovation Center for Law and Technology Advisory Board. Ms. Jenkins received a bachelor's degree in mechanical engineering from Columbia University School of Engineering and Applied Science; a bachelor's degree in physics from Centre College of Kentucky; and a law degree from New York Law School. Ms. Jenkins is serving her second term as a PPAC member.



P. MICHAEL WALKER, VICE CHAIRPERSON

Mr. Walker retired as the Vice President, Assistant General Counsel and Chief Intellectual Property Counsel for DuPont. He began his legal career in a law firm in Philadelphia, Pennsylvania, in 1986, and joined DuPont in 1990. While at DuPont, he has held a number of positions of increasing responsibility in the patent organization, including manager for the European patent organization in Geneva, Switzerland. He was named Associate General Counsel for Intellectual Property in 2001, and became Chief Intellectual Property Counsel in 2003. He is a former board member of the Intellectual Property Owners Association and a former president of the Association of Corporate Patent Counsel. As Chief Intellectual Property Counsel, Mr. Walker was responsible for all legal issues and policy matters related to DuPont patents and related intellectual property, including patent application preparation and prosecution, client counseling, patent opinions, and intellectual property aspects of transactions. Mr. Walker is serving his second term as a PPAC member.



PETER THURLOW

Mr. Thurlow is a patent attorney and partner at Polsinelli law firm in New York. He has significant experience in all aspects of domestic and international patent prosecution, including Patent Trial and Appeal Board (PTAB), reissue and reexamination proceedings. As a patent prosecution attorney, his experience includes drafting, filing, and prosecuting United States patent cooperation treaties and international patent applications. Mr. Thurlow provides litigation support for patent litigation in the District Courts, the International Trade Commission, and before the U.S. Court of Appeals for the Federal Circuit. Mr. Thurlow is the current Second Vice President for the New York Intellectual Property Law Association (NYIPLA). Mr. Thurlow has been active in the implementation of the America Invents Act (AIA), representing the NYIPLA's views before the USPTO. Mr. Thurlow received his bachelor's degree in marine engineering from the United States Merchant Marine Academy; his master's in business administration from Pace University in New York; and his law degree from Brooklyn Law School. Mr. Thurlow is serving his second term as a PPAC member.



MARK GOODSON

Mr. Goodson is the founder and principal engineer of Goodson Engineering in Denton, Texas, where he leads a team of professional engineers with specialties in electrical, mechanical, fire protection, and forensic engineering. Mr. Goodson is a consultant for public sector agencies, as well as commercial and industrial concerns. He is experienced in electrical death and injury analysis, CO death analysis, and mechanical and electrical fire causation. He has authored more than 40 professional articles. He was the first engineer to serve on the State of Texas Electrical Board. Mr. Goodson served as a Court Special Master from 1989-1991. He is the engineer serving on the Texas Fire Marshal's Science Advisory Workgroup, where fire-related criminal convictions are being reviewed for accuracy of scientific evidence. In 2014, Mr. Goodson was appointed to the US Dept. of Commerce NIST panel on forensic sciences (NIST – OSAC). In 2015, UL named him as the electrical engineer serving on the National Institute of Justice research team on fire forensics. He has testified in excess of 500 instances as an expert witness. Mr. Goodson holds a BSEE from Texas A&M, and attended UT Southwestern where he studied forensic medicine. He is a licensed engineer in 14 states. Mr. Goodson is an independent inventor, holds fifteen patents and has fifteen more pending. Mr. Goodson is serving his second term as a PPAC member.



DAN LANG

Mr. Lang is vice president, intellectual property, and deputy general counsel at Cisco Systems located in San Jose, California. He leads a team responsible for Cisco's intellectual property program, including portfolio development, patent licensing and acquisition, and policy. He has overall responsibility for leading a telecommunications industry portfolio of over 12,000 U.S. patents. Mr. Lang is also registered to practice before the USPTO. Mr. Lang is serving his second term as a PPAC member.



JULIE MAR-SPINOLA

Julie Mar-Spinola is Finjan Holdings, Inc.'s Chief Intellectual Property Officer and Vice President of Legal Operations. Ms. Mar-Spinola oversees the Company's revenue-based and legal operations, including the Company's IP and cyber technology innovations, enforcement programs, best practices, public policy initiatives, and mentorships. Ms. Mar-Spinola is also a member of the Board of Directors for product subsidiary, Finjan Mobile, Inc.

Ms. Mar-Spinola has dedicated nearly 30 years of her career in intellectual property law, with emphasis on patents, technology, and policy. She has successfully represented high technology companies of all sizes and business models, including individual inventors, with significant knowledge and experience in all things patents, including litigation, M&A's, IP portfolio development, acquisition, divestitures, and licensing, as well as preservation and monetization of proprietary technologies and patents. Ms. Mar-Spinola has served as General Counsel or VP of Legal for several Silicon Valley companies, including Kleiner Perkins-backed thin-film solar start-up, Alta Devices, Inc.

Ms. Mar-Spinola is a co-founder of ChIPs Network, Inc. (ChIPs), a global 501(c)(3) non-profit corporation dedicated to advancing women at the confluence of law, technology, and regulatory policy. Now Board Chair Emeritus, she served as ChIPs' Chair from 2005 to 2016 and is currently the President of Diversity and Inclusion. Since 2011, Ms. Mar-Spinola serves as a court-appointed Mediator specializing in complex patent disputes, for the US District Court for the Northern District of California. In 2014, she joined the High Tech Advisory Board at her Alma Mater, Santa Clara University School of Law. In 2015, Ms. Mar-Spinola was appointed by the then Secretary of Commerce to serve on the prestigious Patent Public Advisory Committees (PPAC), which reviews the policies, goals, performance, budget, and user fees of the United States Patent and Trademark Office (USPTO) operations and advises the USPTO Director on these matters. Most recently, Ms. Mar-Spinola was named A Women of Influence 2016 by the Silicon Valley Business Journal, and the 2017 Recipient of Santa Clara University School of Law's Special Achievement Award. She is a member of the California State Bar and a licensed Patent Attorney. Ms. Mar-Spinola is serving her first term as a PPAC member.



JENNIFER CAMACHO

Ms. Camacho is the Chief Legal Officer for Torque Therapeutics, an immunotherapeutics company. She is responsible for all aspects of the company's legal affairs and intellectual property. Before joining Torque Therapeutics, she was the Chief Legal Counsel for Gen9, Inc. from 2014 until its acquisition by Ginkgo Bioworks, Inc. in January 2017. Previously, Ms. Camacho was a partner in the international law firms of Proskauer Rose, LLP and Greenberg Traurig, LLP where she represented multiple clients in the life sciences industry, including biotechnology and synthetic

biology companies, pharmaceutical and medtech companies, investment banks, venture capital firms, and other industry stakeholders. Ms. Camacho has been recognized for her work in the fields of intellectual property and life sciences law and has multiple awards and honors, including the Tech Luminary and Innovation All-Star Award from Boston Business Journal and Mass High Tech. She received her bachelor's degree in Cell and Structural Biology from the University of Illinois, and her law degree from Boston College Law School. Ms. Camacho is currently serving her first term as a PPAC member.



JEFFREY SEARS

Mr. Sears is Associate General Counsel and Chief Patent Counsel for Columbia University. His practice encompasses all aspects of patent law, including prosecution, strategic counseling, licensing and post-licensing compliance, litigation, and legislative, regulatory, and policy matters. Mr. Sears manages the university's global patent portfolio and works closely with faculty inventors, technology transfer officers, and executive leadership on commercialization activities. Also, Mr. Sears is an Adjunct Professor at Columbia's School of Engineering and Applied Science, where he co-teaches Intellectual Property for Entrepreneurs and Managers. He is

a frequent speaker and has been recognized for his work in the field of intellectual property, including having been named as a Corporate IP Star by Managing Intellectual Property. Mr. Sears holds an S.B. in physics from MIT, an M.A. and Ph.D. in physics from SUNY Stony Brook, and a J.D. from NYU. Mr. Sears is serving his first term as a PPAC member.



BERNARD J. KNIGHT, JR.

Mr. Knight is a consultant, expert witness and founder of BK Consulting: Expert Witness: Patents, providing consulting services on USPTO rules and regulations, post-grant proceedings, and OED disciplinary matters. He also is a career coach and counselor, and is a licensed professional mental health counselor in Washington, D.C. Mr. Knight was a partner and senior counsel practicing complex patent litigation at the law firm of McDermott Will & Emery LLP from 2013 to 2017. Prior to joining McDermott, Mr. Knight served as General Counsel for the USPTO from 2010 to 2013. As General

Counsel of the USPTO, he led the development and legal review of the regulations implementing the new inter partes review, post-grant review, business method review and derivation proceedings, as well as the regulations changing the United States to a first-inventor-to-file system. Mr. Knight previously served as Acting General Counsel of the U.S. Treasury at the height of the financial crisis. From 2001 to 2006, he was Deputy General Counsel for the USPTO. Mr. Knight began his government career in 1991 at the Department of Justice, Tax Division, where he served for 10 years. Mr. Knight is serving his first term as a PPAC member.