

# PATENT HARMONIZATION

---

---

## HEARING

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET,  
AND INTELLECTUAL PROPERTY

OF THE

COMMITTEE ON THE JUDICIARY  
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

APRIL 27, 2006

**Serial No. 109-100**

Printed for the use of the Committee on the Judiciary



Available via the World Wide Web: <http://judiciary.house.gov>

U.S. GOVERNMENT PRINTING OFFICE

27-224 PDF

WASHINGTON : 2006

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2250 Mail: Stop SSOP, Washington, DC 20402-0001

COMMITTEE ON THE JUDICIARY

F. JAMES SENSENBRENNER, Jr., Wisconsin, *Chairman*

HENRY J. HYDE, Illinois	JOHN CONYERS, JR., Michigan
HOWARD COBLE, North Carolina	HOWARD L. BERMAN, California
LAMAR SMITH, Texas	RICK BOUCHER, Virginia
ELTON GALLEGLY, California	JERROLD NADLER, New York
BOB GOODLATTE, Virginia	ROBERT C. SCOTT, Virginia
STEVE CHABOT, Ohio	MELVIN L. WATT, North Carolina
DANIEL E. LUNGREN, California	ZOE LOFGREN, California
WILLIAM L. JENKINS, Tennessee	SHEILA JACKSON LEE, Texas
CHRIS CANNON, Utah	MAXINE WATERS, California
SPENCER BACHUS, Alabama	MARTIN T. MEEHAN, Massachusetts
BOB INGLIS, South Carolina	WILLIAM D. DELAHUNT, Massachusetts
JOHN N. HOSTETTLER, Indiana	ROBERT WEXLER, Florida
MARK GREEN, Wisconsin	ANTHONY D. WEINER, New York
RIC KELLER, Florida	ADAM B. SCHIFF, California
DARRELL ISSA, California	LINDA T. SANCHEZ, California
JEFF FLAKE, Arizona	CHRIS VAN HOLLEN, Maryland
MIKE PENCE, Indiana	DEBBIE WASSERMAN SCHULTZ, Florida
J. RANDY FORBES, Virginia	
STEVE KING, Iowa	
TOM FEENEY, Florida	
TRENT FRANKS, Arizona	
LOUIE GOHMERT, Texas	

PHILIP G. KIKO, *General Counsel-Chief of Staff*  
PERRY H. APELBAUM, *Minority Chief Counsel*

---

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

LAMAR SMITH, Texas, *Chairman*

HENRY J. HYDE, Illinois	HOWARD L. BERMAN, California
ELTON GALLEGLY, California	JOHN CONYERS, JR., Michigan
BOB GOODLATTE, Virginia	RICK BOUCHER, Virginia
WILLIAM L. JENKINS, Tennessee	ZOE LOFGREN, California
SPENCER BACHUS, Alabama	MAXINE WATERS, California
BOB INGLIS, South Carolina	MARTIN T. MEEHAN, Massachusetts
RIC KELLER, Florida	ROBERT WEXLER, Florida
DARRELL ISSA, California	ANTHONY D. WEINER, New York
CHRIS CANNON, Utah	ADAM B. SCHIFF, California
MIKE PENCE, Indiana	LINDA T. SANCHEZ, California
J. RANDY FORBES, Virginia	

BLAINE MERRITT, *Chief Counsel*  
DAVID WHITNEY, *Counsel*  
JOE KEELEY, *Counsel*  
RYAN VISCO, *Counsel*  
SHANNA WINTERS, *Minority Counsel*

# CONTENTS

APRIL 27, 2006

## OPENING STATEMENT

	Page
The Honorable Lamar Smith, a Representative in Congress from the State of Texas, and Chairman, Subcommittee on Courts, the Internet, and Intellectual Property .....	1

## WITNESSES

Mr. Q. Todd Dickinson, Vice President and Chief Intellectual Property Counsel, General Electric Company	
Oral Testimony .....	4
Prepared Statement .....	6
Mr. Robert A. Armitage, Senior Vice President and General Counsel, Eli Lilly and Company	
Oral Testimony .....	11
Prepared Statement .....	14
Mr. Gary Mueller, President and Chief Executive Officer, Digital Now, Inc.	
Oral Testimony .....	35
Prepared Statement .....	38
Mr. Pat Choate, Political Economist and Author of "Hot Property: The Stealing of Ideas in an Age of Globalization"	
Oral Testimony .....	53
Prepared Statement .....	55

## APPENDIX

### MATERIAL SUBMITTED FOR THE HEARING RECORD

Prepared Statement of the Honorable Howard L. Berman, a Representative in Congress from the State of California, and Ranking Member, Subcommittee on Courts, the Internet, and Intellectual Property .....	73
Copy of the Coalition Bill from Q. Todd Dickinson, Vice President and Chief Intellectual Property Counsel, General Electric Company .....	74



## PATENT HARMONIZATION

---

THURSDAY, APRIL 27, 2006

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON COURTS, THE INTERNET,  
AND INTELLECTUAL PROPERTY,  
COMMITTEE ON THE JUDICIARY,  
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 9:09 a.m., in Room 2141, Rayburn House Office Building, the Honorable Lamar Smith (Chairman of the Subcommittee) presiding.

Mr. SMITH. The Subcommittee on Courts, the Internet, and Intellectual Property will come to order.

Good morning to you all. Appreciate the interest in such an important subject.

And let me explain that we're going to proceed. The Ranking Member, Howard Berman of California, is at a mandatory party meeting and will be here, he hopes, in time for questions. And other friends to my left will be here about approximately the same time.

But I think it will be good to get our testimony on the record and go on and get off to a timely start.

I'm going to recognize myself for an opening statement. And then we'll, as I say, swear in the witnesses and begin the testimony.

Also let me say that I appreciate the gentleman from Tennessee, Mr. Jenkins, being here this morning and helping us get off to this good start. We need two Members here at least. And so, Mr. Jenkins is the indispensable Member this morning.

Today, the Subcommittee conducts its sixth hearing in the 109th Congress on patent reform. We're going to explore the merits of promoting global harmonization within the patent system. Inventors and the public are better served when patent systems world wide share the same basic components or framework.

For example, a harmonized patent system reduces legal fees associated with filing and prosecuting the applications in several countries. Harmonization also inhibits forum shopping across national boundaries during patent disputes involving scope, viability, and ownership. Perhaps most importantly, a harmonized system creates greater certainty regarding patent rights internationally, which enhances the value of those rights for the affected owners world wide.

As our previous hearings on patent reform have demonstrated, it is imperative that we improve the quality of issued patents that circulate in the economy here and overseas. Patents of acceptable integrity attract investors who commercialize inventions. This

leads to the creation of wealth, new jobs, and enhanced living standards for patent owners and their employees.

Better still, it means the public derives enormous health and lifestyle benefits that flow from the development of new products that incorporate patented inventions. This is why harmonization was one of the principles that animated the Subcommittee's work on patent reform this Congress.

In terms of the hearing scope, harmonization is a large thematic umbrella. It potentially invites discussion, of course, of many other issues. That said, certain issues that are incorporated in H.R. 2795 and related substitute drafts are fair game for consideration, including the following topics.

For starters, H.R. 2795 changes the U.S. system from one that protects an individual who invents first—who invents first to one that protects an individual who invents and files first. The current U.S. system leads to uncertain and expensive patent disputes and is at odds with the international first to file standard.

Most of the witnesses who testified at our previous hearings support a first to file system, although we may encounter opposition from some independent inventors.

Second, H.R. 2795 deletes the best mode requirement from section 112 of the patent act that sets forth the requirements for the contents of a patent application. The National Academy of Sciences report recommended the deletion of the best mode requirement, which requires the description of the best mode the inventor contemplated for carrying out the invention at the time the application is filed as one of the subjective elements in the patent law that adds unnecessarily to the cost of patent litigation.

Other industrialized nations have not adopted a best mode requirement, and I believe we are better served without it as well.

Third, H.R. 2795 and subsequent drafts require all U.S. filed applications to be published within 18 months of filing. The last comprehensive patent law that Congress passed adopted this standard, but with a major exception. The provision does not apply to applications that are not filed in a third country that also requires publication.

Publishing an application after 18 months places a company on notice that a patent relevant to its business may issue, which allows the company greater opportunity to revise its operations and rethink investment strategies. The bill eliminates the existing loophole and extends the 18-month publication feature to all applications.

And fourth, H.R. 2795 creates a new post grant opposition system that allows patent disputes to be resolved in a less expensive administrative forum compared to District Court litigation. This permits any member of the public to request that the PTO review the scope and validity of a patent within 9 months from the date of its issuance, a time limit intended to encourage early weeding out of questionable patents and to prevent harassment.

The system provides full rights of appeal to the Federal circuit by an opposer of any adverse decision in the proceeding.

While these subjects are fair game for discussion today, I encourage the witnesses and Members to broach other harmonization issues as well. For example, what are the major impediments over-

seas to harmonizing the world's patent systems? Does harmonization serve the interest of independent inventors as well as big businesses?

We have a good panel of witnesses who can speak to these matters, and I look forward to their testimony. That concludes my opening statement. Without objection, all Members' opening statements will be made a part of the record.

Mr. SMITH. At this point, I'd like to ask the witnesses to stand to be sworn in.

[Witnesses sworn.]

Mr. SMITH. I thank you. Please be seated.

Our first witness—oh, excuse me. I wanted to recognize Adam Schiff to my left, the gentleman from California, and I didn't look to my left.

Do you have an opening statement or any comments to make?

Mr. SCHIFF. No, Mr. Chairman. I'm just glad to join you. I look forward to hearing the testimony of the witnesses.

Mr. SMITH. Thank you, Mr. Schiff.

Our first witness is Todd Dickinson, vice president and chief intellectual property counsel for General Electric. Mr. Dickinson previously served as the under secretary of commerce for intellectual property and the director of the U.S. Patent and Trademark Office. He is a graduate of Allegheny College and the University of Pittsburgh School of Law.

Our next witness is Robert Armitage, senior vice president and general counsel for Eli Lilly and Company. He also serves as a member of Lilly's policy and strategy committee. Mr. Armitage received a bachelor's degree in physics and mathematics from Albion College and a master's degree in physics from the University of Michigan and a law degree from the Michigan law school as well.

The next witness, Mr. Mueller, is president and CEO of Digital Now. His company develops digital imaging technology for the photo processing industry and other consumer software products. He earned his bachelor and master of science degrees from the Rochester Institute of Technology and his MBA from Marymount University.

Our final witness is Pat Choate, a political economist who served as Ross Perot's vice presidential running mate on the Reform Party ticket in 1996. Dr. Choate is also a policy analyst, public speaker, and the author of six books, including most recently "Hot Property: The Stealing of Ideas in an Age of Globalization."

He teaches advanced issues management at George Washington University and serves as the director of the Manufacturing Policy Project in Washington. Dr. Choate performed his undergraduate work at the University of Texas at Austin—institution I represent—and earned his doctorate at the University of Oklahoma. We won't talk about the OU-University of Texas games. [Laughter.]

Mr. SMITH. Welcome to you all. Again, we have your complete statements, which will be made a part of the record, and please limit your testimony to 5 minutes.

Mr. Dickinson, we'll begin with you.

**TESTIMONY OF Q. TODD DICKINSON, VICE PRESIDENT AND  
CHIEF INTELLECTUAL PROPERTY COUNSEL, GENERAL  
ELECTRIC COMPANY**

Mr. DICKINSON. Thank you, Mr. Chairman, Ranking Member Berman who was here a bit ago, and other Members of the Subcommittee.

As the Chairman indicated, my name is Todd Dickinson. I'm honored to be here today. I presently serve as the corporate vice president and chief counsel for intellectual property for GE and was formerly the under secretary of commerce for IP.

In that role, I enjoyed particularly working with this Committee on the American Inventors Protection Act, which was a successful opportunity to move a number of these issues forward, though there is still some more work to be done.

At GE, I am fortunate to manage one of the largest IP portfolios in the world with one of the broadest ranges of technologies and issues. We have content-based issues in our film and television business, NBCU. We have genomics and proteomics issues in our biosciences group. We have aircraft engine technology and lighting technology, plastics technology. We like to say we may be the only company that's won both a Nobel Prize and an Academy Award.

Because of the breadth of those issues and perhaps the past experiences, it gives us, I think—it gives me an opportunity to comment broadly, but also to focus in particular on some consensus approaches, which I think might be helpful to this Committee on a number of the patent reform issues that we've talked about.

As the Chairman alluded to, both the Federal Trade Commission and the National Academies of Sciences dealt very in depth with a number of these issues, produced very extensive and important reports and recommendations, and a number of those recommendations have found their way into 2795 and other legislation and I think have served as the primary impetus for that.

But also as a part of that process, Mr. Chairman, you asked that a number of members of the intellectual property community—trade associations, companies, and others—come together and try to have a consensus approach to this—to this extremely important topic. We worked very hard last summer, and a group that came from that, named the—called “the coalition”—and I think my colleague Mr. Armitage may refer to it as well—developed a so-called “coalition text,” which I think the Committee may be familiar with, which of—includes a number of the issues in an actual text of a bill.

And I'd request, if it was possible, to have that text entered into the record. I'm not here representing the coalition today.

Mr. SMITH. Let me interrupt you. Without objection, that text will be made a part of the record.

[The information referred to follows in the Appendix]

Mr. DICKINSON. Thank you.

Patent harmonization, as you've alluded to, is probably one of the most important issues facing both the patent system today and, frankly, the global economy today. The fact that we have territorially based administration and maintenance and enforcement regimes for patents around the world make—foster extraordinary redundancies in cost and in time and in resources.



GE spends something like \$32 million a year on patent prosecution and maintenance of our foreign portfolio. And a significant portion of that is a function of this multiplicity of systems.

We're trying—we're working very hard, for example, to see if we can get Europe to pass—to ratify the London agreement, which would simply allow for English language prosecution in many countries in Europe. That would save us over a million and a half dollars a year alone.

So patent reform around the world, not only here in the United States, is extremely, extremely important.

Let me touch on a couple—I've been a participant in WIPO, the World Intellectual Property Organization, on a number of these issues. That process, candidly, Mr. Chairman, is stalled, and that's unfortunate.

I represent the American Bar Association at the Standing Committee on Patents. And for a variety of reasons, issues in developing countries around genetic resources and the so-called development agenda, issues around patentable subject matter, that effort is, frankly, just sitting dead in the water at the moment, and that's unfortunate.

The current Administration chose to develop a group of countries, brought a group of countries together recently at the Patent and Trademark Office, the so-called Alexandria Group, which has been a good attempt—a very good attempt, and we should applaud them for that—to try to deal with harmonization among just one set of countries, developed countries who have, I think, the bulk of the interest in this regard and whose—and may be able to multilaterally and outside of the WIPO framework develop a program which will get us further down the road. So I would hope that this Committee would look into that and applaud those efforts.

As far as the best practices that this bill contains, and I think one of the goals of global harmonization in WIPO and in the Alexandria Group has been to identify best practices. A number of them have found their way into 2795, and I'd like to comment briefly on those best practices.

First and foremost is the one which you mentioned, which is the first inventor to file. We are alone in the world among countries having—retaining the so-called first to invent system. It's a costly system. With all due respect to my good friends in the independent inventor community—and as director and commissioner, I don't think anyone else was closer to that independent inventor community—the first to invent system is a failed promise.

The way we resolve the disputes in that area is through a process I think you know called interference. It can cost hundreds of thousands of dollars to resolve that. A study that was done by my good friend and colleague former commissioner Mossinghoff shows that even when the small inventors enter that system, they are disadvantaged by that system disproportionately, and it's a system that's crying out for change.

The change would be to move to the first inventor to file system, which is captured in the bill as it currently stands. And I would hope that any version of that bill that comes forth from this Committee would include first inventor to file.

Several other things, you did mention particularly the elimination of the best mode. That always seems like a good idea because it seems to foster the idea of greater disclosure. What is the best mode of your invention?

What happens and has happened in reality and in practice is that it's become a trap for the unwary. In litigation, it's a defense that gets interposed on occasion, and it's kind of a "gotcha" in litigation and does not really satisfy the goal, I think, for which it was originally intended.

Eighteen-month publication, complete 18-month publication. Again, an excellent goal. One of the disappointments of the AIPA was that we did not have full and universal 18-month publication. It has proved successful.

The folks who opposed it, primarily again, and our independent inventor community have disproportionately not used the opt-out provision. It's used by some particularly important technologies, frankly, in my opinion, to try to game the system a little bit, to buy a little more time, to keep their disclosures from being made. And it undermines, I think, confidence in the system as a whole.

You mentioned externally around the world where there needs to be other reforms and the grace period. I think in terms of best practices, the U.S. grace period is, indeed, a global best practice. And we need to make sure that we bring the grace period to other countries around the world, and I'm pleased that those discussions are underway.

I think one additional topic, which I think may get touched on and is in the current draft of the legislation—and my good friend Mr. Armitage will probably touch on it as well—is what is the definition of prior art?

We should eliminate secret prior art, which is currently available around the world, to undermine I think the value and virtue of a number of the patents in the United States. We should also make sure that we—and I think it's appropriate to redefine the availability—redefine prior art as that which is reasonably accessible. Given the global nature of our information systems now, reasonable accessibility is an appropriate standard.

And finally, I wouldn't be—I would be remiss, Mr. Chairman, if I didn't touch on what is for many of us in the community, and certainly as a former director, maybe the most important recommendation in both of the reports that we mentioned, and that's continuing to end the diversion of patent office fees to other governmental purposes.

Mr. SMITH. Mr. Dickinson, you know I agree with you on that. But I think we need to move on.

Mr. DICKINSON. I thank you very much, Mr. Chairman.

[The prepared statement of Mr. Dickinson follows:]

#### PREPARED STATEMENT OF Q. TODD DICKINSON

##### INTRODUCTION

Chairman Smith, Ranking Member Berman, and Members of the Subcommittee: My name is Todd Dickinson and I am honored to appear before the Subcommittee on an issue that critical to our Nation's economic growth and prosperity: patent reform. I presently serve as the Corporate Vice President for Intellectual Property of the General Electric Company, and was formerly Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Of-

ficie. I hope that these experiences may offer a valuable perspective on some of the issues facing us in this area, in particular the impact of patent reform legislation on issues of international harmonization.

As Director, I enjoyed working on the cause of adapting our patent system to the needs of the 21st Century. I was particularly proud that the Congress passed and President Clinton signed the American Inventor's Protection Act of 1999, during the time I lead the USPTO, and that we had the opportunity to work together on the implementation of that Act, leading to many vital and important changes in how the USPTO operated and was organized.

At General Electric, I am fortunate to help manage the intellectual property assets of one of the world's largest corporations. GE's IP holdings and concerns are extraordinarily broad, ranging from content-based copyright issues in our film and television organization, NBC Universal, to genomics and proteomics patenting in GE Healthcare, with everything else in between from aircraft engines to engineered polymers. We may be the only company that has won both a Nobel Prize and an Academy Award(r).

Because of that breadth of IP issues and concerns, we are uniquely positioned to participate in this debate about patent reform. With such an extraordinary investment in technology, the need to protect that investment and the shareholder value it represents, makes the U.S patent system and its global analogues, more important than ever to us at GE. While our system is one of the greatest and most productive in the world, as with all systems, evolving needs require a regular review and reform in order to ensure the promise of the system is fully realized.

In my previous role as USPTO Director and now at GE, I have followed with keen interest the two studies of the U.S. patent system undertaken by the Federal Trade Commission/Department of Justice and the National Research Council of the National Academy of Sciences and the resulting reports. I was a witness several times before both bodies and was a reviewer of the NAS report. In general, both reports were thorough, well-thought out, and made recommendations the majority of which were highly appropriate to advancing the cause of patent reform in positive ways. I am heartened that the reports have served as a motivation for the cause of patent reform, and congratulate this Committee for its hearings on this topic.

Towards that end, and in the interest of attempting to find a consensus position on a number of the important patent reform issues currently under consideration, GE has also actively participated in a coalition of some 30 of the most recognized and well-respected companies in the world, representing a wide array of our most important technologies, including Eli Lilly, whose General Counsel, Robert Armitage is testifying here today as well. This Coalition, which also includes the American Intellectual Property Law Association and the Intellectual Property Owners Association, has worked hard to find common ground and our proposals represent some of industries best thinking on how to deal with the specifics of the patent reform agenda.

We do not undertake this effort lightly, however. As one of the leading academic economists recently noted with some concern in his extensive review of these issues:

"Social progress in our technological age is intimately bound up with the creation and protection of intellectual property." . . . "[But] just when intellectual property (IP) has made its greatest contributions to this nation's technological growth, many critics on all sides of the political spectrum have assailed the soundness of the underlying legal structures."<sup>1</sup>

As stewards of this system, and the benefits it brings the world, we must resolve to make sure that whatever reforms or changes come forth are ones which serve the public's interest, and encourage the economic development which that public deserves.

#### PATENT HARMONIZATION

One of the most critical issues facing the patent system today, globally, is the need for harmonization of patent laws and procedures. With their territorially-based administration, maintenance, and enforcement regimes, the current systems foster extraordinary redundancies in cost, time, and resources. These inefficiencies inhibit the ability of inventors, large and small, to obtain and maintain the protection they deserve, and encourage the innovation so vital to global economic development. GE innovation has resulted in an active global portfolio that comprises over 38,000 patents and this number includes over 5,700 global patent applications in 2005. We

<sup>1</sup>"Intellectual Property for the Technological Age", R.A. Epstein, University of Chicago, April 2006, Executive Summary and p. 7.

also filed over 2700 U.S. patent applications in 2005. The cost to obtain and maintain this portfolio is not trivial. In 2005, GE spent in excess of \$32,000,000 on the patent prosecution and maintenance of the foreign portfolio, a significant portion of which is a function of the multiplicity of world systems.

Efforts at greater harmonization have been debated for years, with only modest success. As a negotiator of intellectual property issues on behalf of the U.S. government, and now as a delegate to the World Intellectual Property Organization, I have witnessed the frustrations in this area first hand. While we have succeeded in negotiating new treaties in many other areas of intellectual property over the last decade to deal with rapidly evolving changes in the technology and content worlds, substantive patent harmonization has proven difficult and challenging for a variety of reasons. I would like to first address the current state of play on international harmonization and some of the concerns we have on that current status.

#### STANDING COMMITTEE ON THE LAW OF PATENTS

Substantive patent law harmonization has been a topic of discussion in the World Intellectual Property Organization (WIPO) since at least the mid-1980s in response to increasing calls for harmonization of national and regional patent laws.

Following the last major, but unsuccessful, effort to advance substantive harmonization in 1991 at the WIPO, and the completion of the Patent Law Treaty of 2000, dealing with procedural matters, renewed discussions on a draft Substantive Patent Law Treaty (SPLT) began again in earnest in May 2001 in the Standing Committee on Patent Law. Only limited progress has been made in WIPO, the discussions, especially those over the past few years, having been marked by attempts on the part of a coalition of developing countries to inject a number of highly sensitive political issues into the discussions and to introduce other proposals that seek to undermine the goals of patent law harmonization or generally weaken patent rights. These have primarily involved issues regarding patent application disclosures of the source of origin of genetic resources/traditional knowledge and exceptions to patentability or patentable subject matter.

As a way of moving forward, the U.S. delegation has actively supported a compromise proposal to limit the scope of work of the Standing Committee on the Law of Patents (SCP) to discussions regarding a limited number of issues, the so-called "mini-basket", which includes the issues of the definition of prior art, priority of invention to be awarded to the first inventor to file the patent application, a grace period for filing after the public disclosure of the invention, and issues relating to novelty and inventive step.

Unfortunately, efforts to reach a specific work plan for the SCP thus far have been unsuccessful. In fact, the most recent attempt to define the work plan, the informal meeting of the SCP held from April 10–12, 2006, failed to reach agreement on such a plan for harmonization talks.

#### GROUP B+ CONSULTATIONS

While in the past efforts focused around the original work plan of the SCP in WIPO, it is becoming increasingly apparent that success in the near term at WIPO is not likely. For this reason, new avenues and strategies for attaining progress on substantive patent law harmonization have been explored.

In February of 2005, the USPTO was instrumental in setting up the "Alexandria" group or "Group B+" comprised of members of like-minded countries interested in harmonization. The inaugural meeting was attended by 20 nations, the European Union, and the European Patent Office and resulted in the unanimous decision to establish a technical working group for the express purpose of discussing certain areas of patent law harmonization.

Since its inception, the Group B+ , or "Alexandria Group", has been meeting biannually and been working toward harmonization on this a limited number of issues. While significant progress has been made, certain sensitive issues remain, however, such as first-to-file, grace period, and secret prior art treatment and effect. Also, some of the European delegations have expressed reservations over proceeding with harmonization discussions outside of WIPO, if WIPO will not be the forum where an agreement is ultimately reached. The USPTO and the Bush Administration should be congratulated for taking the initiative on this effort to establish the Alexandria Group and to move its agenda forward, and we look forward to additional engagement and progress in the future.

#### BEST PRACTICES AND PATENT HARMONIZATION

High among the principals underlying the work of the SCOP and of the Alexandria Group's efforts has been a desire for so-called "deep harmonization" resulting

from an understanding of what are the best practices among the world's patent systems. This identification of best practices also underlay in many ways the study and reports of both the Federal Trade Commission/Department of Justice and the National Academies studies and reports. In particular, it is important to note that the comprehensive National Academies of Science report, among its recommendations for patent reform, addresses broadly the importance of reducing the redundancies and inconsistencies among national patent systems. They specifically recommend reconciling application priority, i.e. first-inventor-to-file, elimination of the best mode requirement and universal publication of all patent applications.<sup>2</sup>

I have been asked to comment specifically on certain issues in H.R. 2795 and various other draft bills which have discussed, which relate in particular to harmonization such as those identified above, and am pleased to do so.

#### RESOURCE ALLOCATION AND THE USPTO: PERMANENTLY END DIVERSION

Before delving into the patent reform issues, however, I want to briefly address another issue that probably most significantly affects the successful functioning of our patent system. As both the NAS and FTC reports highlighted, the USPTO must have sufficient resources to perform its critical role in administering the patent system. For years, the USPTO was denied these resources as patent and trademark fees, paid to the USPTO in return for specific services, were diverted to unrelated government agencies and activities. As a former Director, I have seen and had to manage first-hand the problems this denial of funds causes in the USPTO. While Congress and the current Administration are to be commended for fully funding the USPTO during the current fiscal year, fee diversion from prior years has left the USPTO with a tremendous work backlog, obsolete systems, and an inability to restructure. As contemplated in H.R. 2791, recently introduced here in the House, the USPTO would be given authority to raise its fees, but also gives statutory assurance that those fees will not be diverted to unrelated programs.

Too often we regard this issue as "Mom and Apple Pie" in the mix of patent reform issues. It would be tragic to have it be overlooked in the debate over more procedural reforms, and remains probably the single most important reform to our system this Congress could and should make. This Subcommittee, and you Mr. Chairman, should be commended for the support they are giving, and have consistently given, over the years to a permanent solution to the diversion problem.

In the event that additional resources are provided, we would submit that attention should be focused on using those funds to provide additional examination time for examiners, continuing to increase the searching resources and databases available to examiners, and training and other means to continue to develop the technical and legal expertise of our examining corps.

#### FIRST-INVENTOR-TO-FILE

One of the major obstacles to global harmonization has traditionally been resolution of the basic question of who is entitled to priority of invention. Alone now among the world's countries, the U.S. has maintained a system awarding priority of inventorship to the so-called "first inventor". This seemingly innocent characterization has become fraught with difficulties of definition, proof and cost. The rest of the world awards priority to the first inventor to file their patent application. While this debate has been ongoing for decades, the time appears to be at hand for the U.S. to join the rest of the world in implementing this simpler, fairer and less burdensome means for awarding priority.

As the groundbreaking study by my colleague and friend, former PTO Commissioner Gerry Mossinghoff, has shown, the very individuals who in recent tradition have been most concerned about this change, the individual or small inventors, have actually been disadvantaged by our current system.<sup>3</sup> The primary means for determining inventorship when there is a contest is a process in the USPTO known as interference. Costly,<sup>4</sup> rule-bound, and time-consuming, the interference process is a failed promise for individual inventors, as well as small and medium size enter-

<sup>2</sup>"A Patent System for the 21st Century, National Research Council of the National Academies, June 2004, pp. 11-12.

<sup>3</sup>Interestingly, it should also be noted that, in testimony before this Subcommittee's predecessor, a representative of small inventors once stated, "[W]e endorse a first-to-file rule." Statement of Burke E. Wilford, National Director, the American Society of Inventors, Exhibit D, Hearings before the Subcommittee on Patents, Copyrights and Trademarks of the Committee on the Judiciary, United States Senate, 90th Congress, May 17-18, 1967, p.291.

<sup>4</sup>It is often estimated that the cost of an interference from declaration to resolution is routinely in the hundreds of thousands of dollars.

prises, universities and non-profit organizations, who also have sometimes opposed such a change.

Moreover, since this was last seriously debated at the international level, during the first Bush Administration, many other structural and systemic changes have helped level the playing field relative to concerns previously expressed. The adoption of provisional applications, the availability of technical and legal resources on the internet, and electronic searching and filing capabilities on-line have made the application process more accessible and timely to all Americans.

This past year, both the NAS report and the American Bar Association's House of Delegates urged the U.S. to change to a "first-inventor-to-file" (FITF) system as a best practice.<sup>5</sup> While it has sometimes been suggested that the U.S. should not unilaterally move to this FITF system, and should only consider it as part of an overall package of international harmonization treaty obligations, the advantages of this system in terms of simplicity, cost, and a serious reduction in uncertainty about priority, argue strongly in favor of making such a change now. It may also be that such a good faith move on the part of the U.S. will reinvigorate the stalled negotiations at the WIPO, an important and valuable goal in itself, and will help facilitate possible agreement in the Alexandria Group's work.

Therefore, I would like to strongly support Section 3 of H.R. 2795 which would change the U.S. patent system from a first-to-invent system to a first-inventor-to-file system. Often known as just first-to-file, the bill calls the new system "first-INVENTOR-to-file" to make clear that an individual cannot obtain a valid patent if he is not an inventor, i.e., if the individual derived the invention from someone else and then file, or as some small inventors are concerned surreptitiously learn of their invention and beat them to the USPTO. Under the new system, among two or more competing inventors the patent would go to the inventor with the earliest "effective" patent filing date.

With the switch to first-inventor-to-file by the U.S., no country in the world would have a first-to-invent system. I join with my colleagues in support of proposed changes that would amend Title 35 to award priority to the first inventor to file a patent application, and urge this subcommittee to include language to that effect in any patent reform statute under consideration.

#### DEFINITION OF PRIOR ART AND GRACE PERIOD AS "BEST PRACTICES"

We also support the propose redefinition of prior art to that which consists of information that is available to the public anywhere in the world. Public availability requires reasonable accessibility and includes all types of communications as well as public display and uses. This may directly impact patent examination and, by extension, overall quality, and will also hopefully be available in a post-grant review procedure, also currently under consideration and a major recommendation of the NAS and FTC/DOJ reports. It also consistent with the currently-considered harmonization proposals and, thereby advances that goal, as well. This is additionally true in its removal of the "in this country" limitation on the use of such prior art. In today's globalized trade environment, with significantly easier access to data from around the world, the anachronistic limitation to domestic art has little place in our patent regime.

Along with this, a "grace period" would apply to all publications of the inventor including earlier published patent applications. This grace period would arise by operation of law without any requirement for the filing of a declaration. The Coalition text supports a more extensive grace period than the one contained in the Chairman's July 26th substitute text, and was the work product of an on-going dialogue with the university community for whom this issue is particularly resonant.

We also support the elimination of so-called "secret prior art" which might also be available to avoid art which would otherwise invalidate inventions. This elimination is also a major discussion issue in the "mini basket" of harmonization issues currently under discussion. Permitting secret prior art, creates uncertainty and frustrates the goal of searching for prior art for the purpose of improving patent quality.

#### REPEAL OF THE "BEST MODE" REQUIREMENT

The best mode requirement of 35 U.S.C. § 112 requires patent applicants to disclose what they consider to be the best way of carrying out their claimed invention. HR 2795 proposes eliminating this requirement. This change would accomplish two purposes. First, it would bring the US patent system into conformance with many

<sup>5</sup>The applicant must still be the true inventor. Inventions derived or stolen by others would not permit that derivator or thief to be considered the true inventor. For this reason, the term of art used to describe the new system is "first-inventor-to-file".

other jurisdictions throughout the world, which lack such a requirement. Second, this change would eliminate a point of subjectivity in order to make patent validity more predictable. Repeal of the “best mode” requirement would remove another barrier to global harmonization.

Furthermore, while this has often been portrayed as a positive, in that it seems to encourage greater public disclosure, in practice, it has more often resulted in a trap for the unwary or a “gotcha” in patent litigation, further undermining confidence in the system.

#### 18 MONTH PUBLICATION

Universal publication of patent applications after 18 months is the norm in the rest of the world. However, in the U.S. patentees who do not wish to file for a foreign patent can opt for non-publication of their patent application, so long as they give up their right to file on that invention outside of the U.S. Section 9 of HR 2795 would eliminate this anomaly of the U.S. patent law. This change would also lead to greater disclosure and sharing of information and, of course, remove another barrier to harmonization.

It also prevents entities from making important and expensive investments of research dollars, unaware that that research may at some point infringe an issued patent. This is not a wise use of limited research dollars. This also, by extension, encourages additional research, which is all to the public good. In any event, it is my understanding that USPTO statistics show that there is only a minor “opting out” that is occurring, but it may be in important technologies,<sup>6</sup> where the applicant may be using the opt-out provisions initially to avoid exposing their technology publicly for a period, while opting in later. Such gamesmanship should not be encouraged, especially when the public policy grounds for publication are so strong in the first place. 18 months is enough time for inventors to determine whether or not to proceed with the publication and prosecution or to abandon the application and keep it a trade secret. We support universal publication.

#### CONCLUSION

In conclusion, while a member of the Coalition, and supportive of that text, GE supports much that it in HR 2795, in particular in the areas of harmonization which I have identified, and applaud the continuing efforts of this subcommittee to improve the patent system, globally, by updating U.S. law and practice to permit a more globally harmonized system. Intellectual property protection on an international level is a critical element of GE’s research and development cycle and to our continued introduction of innovative products and services to global markets.

I would be pleased to respond to questions from the Subcommittee.

Mr. SMITH. Thank you, Mr. Dickinson.  
Mr. Armitage.

#### **TESTIMONY OF ROBERT A. ARMITAGE, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, ELI LILLY AND COMPANY**

Mr. ARMITAGE. Yes, thank you, Chairman Smith, for the opportunity to be here this morning.

I’ll begin. Thank you, Chairman Smith, for the opportunity to be here this morning to speak on the topic of patent harmonization and its relationship to broader issues of patent reform.

I, frankly, am most appreciative of the efforts that you and other Members of your Subcommittee have undertaken to advance the cause of patent reform in this Congress, including the development of legislative proposals that would advance harmonization along with broader patent reforms.

In my written testimony, I attempted to set out at some length how patent harmonization efforts have been and remain inherently intertwined with broader efforts at patent reform. My written testimony offered a fairly detailed tour of the three major reform efforts

<sup>6</sup>And, interestingly, apparently not often by independent inventors, who lobbied strongly and successfully for inclusion of the opt-out language in the American Inventors Protection Act.

over the past 40 years—the 1966 President’s Commission, the 1992 DOC Advisory Commission, and, as Mr. Dickinson referenced, the more recent National Academies report.

Remarkably, whether these efforts were undertaken in the ’60’s or the ’90’s or at the start of this century, they consistently reached many of the same conclusions. Significant and some might say radical measures must be undertaken by Congress to elevate patent quality. Improving patent quality, however, is only one aspect of measures that must be undertaken to ensure civil justice for patent litigants.

Like many others whose businesses are greatly impacted by the U.S. patent system, my company supports a fair, balanced, and comprehensive patent reform bill to both elevate patent quality and advance civil justice for patent litigants.

Indeed, as Mr. Dickinson said, the reforms that we seek are now supported by three dozen major companies and leading IP associations. These reforms would result in greater harmonization with patent systems outside the United States, but harmonization for its own sake is not really the driver behind these reforms.

In our view, we agree with Mr. Dickinson that the National Academies recommendations should represent the template for designing patent reform in this Congress. We believe first inventor to file, elimination of the best mode requirement, publication of all applications at 18 months, and introducing a new 9-month window for post grant oppositions that would be open to all issues of the validity of a patent ought to be enacted into law.

First inventor to file, by itself, would remarkably simplify our patent system and simplify the work of the Patent and Trademark Office. It would also, frankly, be a necessary predicate for conducting a post grant opposition that would be open to all issues of whether a patent was valid or not.

Perhaps the most important benefits from making harmonizing changes to the U.S. patent system would be the objectivity and transparency that it would introduce into the patent law. The reforms in 2795 in a few words would allow someone with sufficient knowledge and skill to pick up any U.S. patent, read it, reference only publicly accessible information, and be able to make a full and complete determination of whether the patent is valid or not.

And as we well know, today’s patent system, even after millions of dollars of discovery of issues that are sometimes based on secret prior art, sometimes based on subjective impressions of the inventor in what was or was not the best mode always leaves uncertainty and doubt in whether a patented invention is, indeed, validly patented.

Also, adopting a full set of reforms would facilitate the initiative that Director Dudas at the United States Patent and Trademark Officer has been championing to increase responsibility of applicants. It would do so by creating a safe harbor for inventors who obtain fully valid patents, so that those fully valid patents couldn’t later be challenged in court on the basis that the patent was procured through inequitable conduct.

Finally, as Mr. Dickinson noted, the patent reform process in this Congress appears to have slowed because of controversies over a few issues. The most controversial of these issues relate to dis-



abling or at least diminishing the availability to inventors of adequate remedies when their patents have been found both valid and infringed.

If Congress were to move forward, however, with patent quality and related reforms that advance civil justice for patent litigants, we believe that these misguided calls for diminishing or disabling patent remedies would cease.

We have heard the arguments that it's unfair to put a company out of business or force the payment of a king's ransom because of a patent of questionable validity that can't be effectively challenged either administratively or in the courts. However, with the enactment of patent quality and related civil justice proposals that we support, that specter would disappear.

When a high-quality patent is issued, and its claims are properly limited to truly novel and innovative technology that an infringer can't avoid by redesigning a product or incorporating any alternative technology, no possible justification should exist for denying such an inventor the full economic rewards from his contribution, including the assurance that ongoing infringement of such a valid patent will be stopped by the courts.

Thank you for permitting me this opportunity to speak today as part of your ongoing efforts at patent reform.

[The prepared statement of Mr. Armitage follows:]

PREPARED STATEMENT OF ROBERT A. ARMITAGE



Statement of  
Robert A. Armitage  
Senior Vice President and General Counsel  
Eli Lilly and Company, Indianapolis, Indiana

Before

The United States House of Representatives  
Committee on the Judiciary  
Subcommittee on the Courts, the Internet, and  
Intellectual Property

On

“Patent System Harmonization”

Thursday  
April 27, 2006



Chairman Smith, Ranking Member Berman, and Members of the Subcommittee:

Mr. Chairman and Ranking Member Berman, my name is Robert Armitage. I currently serve as Senior Vice President and General Counsel for Eli Lilly and Company, located in Indianapolis, Indiana. Prior to joining Lilly, I was a partner at Vinson & Elkins and engaged in practicing intellectual property law. During the past three decades, I have represented individual inventors, small businesses, universities, and multinational corporations. I have worked with clients seeking to defend and enforce patents, as well as clients engaged in challenging and invalidating patents. I have also been involved with numerous bar and industry trade associations, where I have played an active role in garnering support for patent reforms. It is an honor for me to again appear before this Subcommittee to address the manner in which patent harmonization initiatives are related to the desire for broader patent system reforms.

***Patent Reforms Past: Where We Have Been for the Past 40 Years***

I last had the opportunity to appear before this Subcommittee to address patent harmonization issues nearly 14 years ago. On April 30, 1992, this Subcommittee and its Senate counterpart held joint hearings on the "Patent System Harmonization Act of 1992." At that time, I appeared on behalf of the National Association of Manufacturers, as chair of its Intellectual Property Committee. The thrust of the hearing centered on the advisability of moving forward with a first-inventor-to-file system in the United States.

The highlights of my 1992 testimony included the following observations, which I submit are as valid today as they were then:

... The interests of U.S. inventors would be well-served under a first-to-file system. NAM's support for "first-to-file" derives from the costs, delays, complexity and uncertainties created by existing first-inventor proceedings. A first-to-file rule would greatly reform and simplify U.S. law, while affecting a minuscule number of second-to-file inventors who currently, but often at great expense, prevail in patent interference contests.

A first-to-file system would benefit "small entity" inventors (independent inventors, university inventors and small businesses), who appear most disadvantaged under the multiple burdens of existing U.S. first-inventor practice.

...  
 Prior user rights represent an important and essential feature of this legislation. These rights are needed to assure that investments in U.S. manufacturing facilities are not compromised by later-filed patents. Without prior user rights, the United States would be at a competitive disadvantage in attracting investment in new manufacturing facilities



relative to other industrialized countries, all of which recognize such rights.

...  
 Other changes to the U.S. patent system that should be considered by Congress are endorsed by NAM [including] elimination of the “best mode” disclosure requirement, limiting the “on sale” bar to an actual sale of the invention, and restricting the remedy for “inequitable conduct” to denial of pre-judgment damages. As proposed by NAM these changes would profoundly reduce the cost of enforcing patents by severely limiting matters on which discovery would be necessary to assess patent validity.”

Joint Hearing Before the Subcommittee on Patents, Copyrights and Trademarks of the Senate Committee on the Judiciary and the Subcommittee on Intellectual Property and Judicial Administration of the House Committee on the Judiciary, 102<sup>nd</sup> Congress, Second Session, on S. 2605 and H.R. 4978, April 30, 1992, S.N. J-102-57 (Senate) and S.N. 122 (House), p. 190.

The identified needs for reform in 1992 were grounded on serious concerns over the delays and uncertainties built into the existing first-to-invent system, the expensive “patent interference” system that the United States Patent and Trademark Office must administer to make it work, and its inherent unfairness to the least resourceful inventors. In my 1992 testimony, I observed the following on the issue of fairness:

... To those who would argue that the first inventor system adds fairness to our patent system, NAM would ask, Fairness for whom? Our patent system only rarely determines that the first inventor is someone other than the first-to-file; statistically, needles in a very big haystack of patents granted each year. Even when it does, it does so at such expense and with such delay, that who but the most resourceful inventor can see the process through to a successful end?

Joint Hearing, *supra*, p. 194.

The United States is the only country in the world in which a person can be the first to make an invention and be the first to seek a patent for an invention, but nonetheless forfeit the right to obtain a patent on that invention to someone who much later made the same invention and even later sought a patent on it. Only in the United States is a person who is the first to make an invention, and who becomes the first to seek a patent on it, saddled with the fear – and forced to bear the risk – that some johnny-come-lately inventor may wrestle away the right to patent.

The irony of our current first-to-invent system is how poorly it serves the interest of the first inventor, not how well it does so. The United States suffers with the world’s only patent system that does not guarantee that the first inventor can always secure the right to patent his or her invention. Even worse, recent and exhaustive research has revealed just how unfairly our current first-to-invent system has operated in awarding patents when the issue of “which inventor is the first inventor” is in dispute.

This research has empirically demonstrated that in the “first inventor” determinations, size does matter – and matters decisively. Because the patent interference system depends upon keeping detailed records of invention, having access to corroborators of the inventor’s work, complying with Byzantine procedural requirements of a patent interference, and persisting to the conclusion of this hyper-expensive administrative proceeding, the so-called “small entity” inventors suffer a significant net loss of patents to “large entities” in patent interference contests.

The latest data demonstrate that, had Congress enacted the Patent System Harmonization Act of 1992 in 1992, independent inventors, universities, small businesses, and other not-for-profit entities would have been awarded more patents, and would have saved substantial sums of money that were instead spent on patent interference contests. In short, the small entities would have received more patents, at much less expense, much more quickly, and with greatly reduced uncertainty.

The concerns over the operation of the first-to-invent system, especially its impact on the “small entities” were not new ones in 1992. Indeed, during the past four decades, no one has completed a serious look at reforming the U.S. patent system without reaching the conclusion that preserving the first-to-invent principle makes no conceivable sense – for “small entities” that are disproportionately disadvantaged by this system or for “large entities” that also must bear its costs, delays and uncertainties.

The best way to understand these concerns is through a brief recap of three seminal studies of the U.S. patent system that have taken place during the last forty years. Exactly 40 years ago, on November 17, 1966, the President’s Commission on the Patent System issued its report advocating, among other things, greater patent law harmonization based upon a first-inventor-to-file system. The context of that recommendation is best understood, however, not as a singular push for the “first-inventor-to-file” rule, but as a call for a balanced and comprehensive set of initiatives to improve the U.S. patent laws. The President’s Commission identified the need for achieving six objectives. A strong case can be made that not a single word of the 1966 text needs changing to define a complete 2006 patent reform agenda:

1. To raise the quality and reliability of the U.S. patent.
2. To shorten the period of pendency of a patent application from filing to final disposition by the Patent Office.
3. To accelerate the public disclosure of technological advances.
4. To reduce the expense of obtaining and litigating a patent.
5. To make U.S. patent practice more compatible with that of other major countries, wherever consistent with the objectives of the U.S. patent system.
6. To prepare the patent system to cope with the exploding technology foreseeable in the decades ahead.



Report of the President's Commission on the Patent System, 1966, pp. 3-4.

The 1966 President's Commission was not unmindful of the need for a fair patent system, operating in the public interest and the interests of all inventors. Its rationale for moving away from a first-to-invent system is instructive because the "fairness" rationale that the Commission set out has only grown in vitality over the intervening decades:

In a first to file system, the respective dates of "conception" and "reduction to practice" of the invention, presently of great importance in resolving contested priority for an invention claimed in two or more pending applications or patents, no longer would be considered. Instead, the earliest effective filing date would determine the question of priority. This necessarily follows from the provision that the disclosure in a patent or published complete application shall constitute prior art as of its effective filing date. Interference proceedings thus would be abolished.

Important considerations dictate this departure from our present practice. A first to file system will: encourage prompt disclosure of newly discovered technology; substitute for the delays and expense of interference proceedings a fair and inexpensive means by which an inventor can establish priority; and bring U.S. practice into harmony with that prevailing in almost all other industrial nations.

The Commission believes it is as equitable to grant a patent to the first to file as to the one who wins an interference. Many circumstances may determine the winner in either case. But the first to file is more apt to be the inventor who first appreciated the worth of the invention and promptly acted to make the invention available to the public.

President's Commission, *supra*, pp. 5-6.

A quarter century later, the Secretary of Commerce's Advisory Commission on Patent Reform issued its report on the patent system. The Advisory Commission, like the President's Commission, supported adoption of a first-inventor-to-file system. Again, like the President's Commission, the Advisory Commission saw the advantages of a first-inventor-to-file system in the context of a broader set of reforms to U.S. patent law. Specifically, on the first-inventor-to-file issue itself, the Advisory Commission saw the need to accompany it with contemporaneous reforms to the U.S. patent laws providing for a one-year "grace period" for inventors, permitting a system for simplified or "provisional" filing of patent applications, and affording limited prior user rights to later inventors. Given that these conditions were part of a move to the first-inventor-to-file principle the Advisory Commission's August 1992 report concluded:

The proposed first-to-file system thus would provide a simple and inexpensive means for establishing priority of invention, while at the same time making it easier for all inventors to gain access to the patent system. The new system would reduce the time and expense of obtaining patents



by providing a readily determinable date of priority, and would afford greater certainty in rights for U.S. inventors.

Advisory Commission on Patent Law Reform: Report to the Secretary of Commerce, August 1992, p. 12.

The Advisory Commission also touched on other issues that would advance greater harmonization among patent systems, but with an eye to improving the certainty, transparency and objectivity of the operation of U.S. patent law. This included a recommendation to simplify key parts of the law of patentability:

[T]o eliminate excessive transaction costs, the Commission recommends removing bases for challenging patent validity that do not provide a corresponding public benefit. In particular, the Commission recommends that the best mode requirement of 35 U.S.C. 112 be eliminated, and that the “on sale” bar of 35 U.S.C. 102(b) be restricted to actual completed sales, measured in terms of completed sale plus delivery, rather than mere offers to sell. ...

Advisory Commission, *supra*, p. 14.

Forwarding ahead another dozen years, the National Research Council of the National Academies of Science, following an intensive, multi-year examination of the U.S. patent system, set out a series of recommendations for addressing longstanding concerns over the operation of the U.S. patent system. This multi-year effort engaged some of the Nation’s best and brightest minds.

The final two recommendations of the National Academies were targeted to patent harmonization issues. Just as the two commissions had done, the National Academies proposes a comprehensive and integral reform package, with a particularly important focus on civil justice for patent litigants:

**6. Modify or remove the subjective elements of litigation.** Among the factors that increase the cost and decrease the predictability of patent infringement litigation are issues unique to U.S. patent jurisprudence that depend on the assessment of a party’s state of mind at the time of the alleged infringement or the time of patent application. These include whether someone “willfully” infringed a patent, whether a patent application included the “best mode” for implementing an invention, and whether an inventor or patent attorney engaged in “inquitable conduct” by intentionally failing to disclose all prior art when applying for a patent. Investigating these questions requires time-consuming, expensive, and ultimately subjective pretrial discovery, a principal source of soaring litigation costs. The committee believes that significantly modifying or eliminating these rules would increase the predictability of patent dispute outcomes without substantially affecting the principles that these aspects of the enforcement system were meant to promote.

**7. Reduce redundancies and inconsistencies among national patent systems.** The United States, Europe, and Japan should further harmonize patent examination procedures and standards to reduce redundancy in search and examination and eventually achieve mutual recognition of results. Differences that need reconciling include application priority (“first-to-invent” versus “first-inventor-to-file”), the grace period for filing an application after publication, the “best mode” requirement of U.S. law, and the U.S. exception to the rule of publication of patent applications after 18 months. This objective should continue to be pursued on a trilateral or even bilateral basis if multilateral negotiations are not progressing.

A Patent System for the 21<sup>st</sup> Century, National Research Council of the National Academies, June 2004, pp. 11-12

Thus, this short tour of “Patent Reforms Past” demonstrates a remarkable consistency in diagnosis and proposed therapy over four decades. The quotations make the case that those who have taken a deep dive into substantive patent reform have not been able to resurface without advocating reforms that make aspects of U.S. patent law operate more in harmony with patent systems outside the United States.

Perhaps more significantly, however, these “deep-dive” efforts all resulted in recommendations for comprehensive and integrated patent reforms, not just a limited set of harmonizing changes. The patent law is complex, the patent system serves many constituencies with diverse interests, and patent reform typically means seeking out a fair and balanced agenda of changes.

With this background as prelude, I would like to take the opportunity to relate these past patent harmonization and larger patent reform efforts to contemporary reform initiatives, specifically the proposals for patent reform that are being discussed by this Congress, in many corporate board rooms, and among the various other constituencies that are impacted by the patent system. Remarkably, for any participants in the discussions on this topic from 1966 or 1992, there will be no small measure of *déjà vu* from an inspection of the contemporary reform menu – first-inventor-to-file, best mode repeal, expanded prior user rights, inequitable conduct reform, and 18-month publication of all pending applications for patent.

***Patent Reforms Present: The Coalition for 21<sup>st</sup> Century Patent Reform***

Lilly is a member of a coalition of companies and organizations working for broadly based reforms to the U.S. patent law. This group has taken the name “Coalition for 21<sup>st</sup> Century Patent Reform.” Members of the Coalition include many of this country’s most admired and successful corporations: 3M, Caterpillar; Dow; Eastman Kodak; Exxon Mobil; General Electric, which is represented here today by one of its senior executives; Johnson & Johnson; Monsanto; Motorola; Procter & Gamble; and United Technologies. In addition, Coalition members include the American Intellectual Property Law Association and the Intellectual Property Owners Association, two of this country’s most widely respected voices on IP law issues.





While Lilly is a member of this Coalition, I am here today on behalf of Lilly and not as a representative of the Coalition. That said, I will from time to time reference views of Coalition members that reflect my best understanding of what I believe to be common positions among its members.

#### **Patent Quality and Civil Justice**

Individual members of the Coalition have not been shy about exposing the seriousness of the problems facing the U.S. patent system or the very significant reforms that Coalition members are prepared to support in order to address those problems. In brief, patent quality must improve. As a measure of the seriousness of the Coalition's efforts, on September 1 of last year, the Coalition offered a detailed and comprehensive legislative proposal for sweeping reforms to the U.S. patent laws.

Lilly believes that the time has come to end any debate about whether patent quality today is good or bad. How to best characterize the work of the United States Patent and Trademark Office today is beside the point. There is virtually unanimous agreement that no matter how good patent examiners are today at tackling the increasingly complicated job of patent examination, enhancing the effectiveness of the patent system demands improving the quality of today's patent examination significantly. A troubling "patent quality deficit" exists today. It is reflected in—

- The adequacy of the searching resources of the United States Patent and Trademark Office that permit patent examiners to find the most relevant prior art used to assess the novelty and non-obviousness of an invention.
- The technical proficiency of patent examiners to be able to fully comprehend the complexity of technology that is involved in many of the inventions for which patents are sought.
- The availability of sufficient time during the examination process to make the most complete assessment of the invention and its relationship to existing technology.
- The expertise of patent examiners in the legal precedents that must be applied to determine the various questions of law that determine whether the requirements for patentability have been satisfied.

As technology becomes more complicated and diverse, patents are sought with a greater intensity in more fields of endeavor, and preexisting knowledge grows at an ever accelerating pace, the inevitable consequence is an ever-growing quality deficit that bedevils patent owners and patent challengers alike.

The lower the quality of the examination process that leads to an issued patent, the greater the risk for patent owners that their patents cannot be reliably enforced. Unpredictability in enforcement degrades the value of a patent. Facing questionable success in the enforcement of a patent represents an intolerable situation for businesses where high-risk, expensive and long-extended development activities are needed to ready a patented invention for commercial marketing. It is only the expectation of successful patent enforcement that makes such investments possible.



Patent challengers fare no better when patent quality is inadequate. Patent challengers today suffer from a surfeit of questionable patents, some of which should never have issued and others of which have at best questionable validity. The plight of the patent challenger is further compounded today by the fact that there are no adequate mechanisms under which many such patents can be fully and fairly reexamined.

Closing the patent quality deficit would greatly advance civil justice for patent litigants: fewer questionable patents would most assuredly mean much less patent litigation. Both the need to bring litigation to enforce valid patent rights and the need to defend against questionable patents would diminish.

However, the patent quality deficit is but one aspect of broader overall concerns about the operation of the patent system, concerns that, again, are shared equally by patent owners and prospective patent challengers. Many patents are effectively unenforceable because the cost of enforcement exceeds their economic value. Many questionable patents are immune from any effective challenge for precisely the same reason. The integrity of the entire patent system suffers when valid patents cannot be economically enforced and questionable patents cannot have their validity readily and efficiently readdressed. While enhancement of patent quality would be a key civil justice reform for patent litigants, complimentary reforms are urgently needed. Such reforms must be directed to the heart of the cost, complexity, subjectivity, and unpredictability in the adjudication of patent rights.

Coalition members have been consistent supporters of comprehensive action by Congress on these patent quality and broader civil justice issues. The aim of the Coalition efforts has been to advance a fair, balanced, and comprehensive set of reforms that should make the enforcement of valid patents more certain and more efficient and the elimination of invalid patents more prompt and more complete. In its September 2005 proposal, the Coalition advanced no fewer than a dozen major changes to the U.S. patent laws.

#### **Support for Fair, Balanced and Comprehensive Reforms**

In brief, the patent quality and related civil justice initiatives endorsed by Coalition members include measures that would:

1. ***Reign in potential abuses in patent venue by mandating transfer in cases where neither plaintiff nor defendant has any substantial connection to the chosen forum.*** Patent litigation is typically fact and witness intensive. "Venue" reform measures should mandate the transfer of venue for patent infringement actions to a more appropriate forum in situations where there is only a minimal relationship to the original forum. This reform should move patent litigation from a venue with no substantial evidence or witnesses to a forum where the parties have more substantial contacts or where substantial evidence or witnesses are to be found.
2. ***Throttle back on the ability of patent owners to seek punitive damages.*** Patent owners routinely allege infringement of patents is willful and seek treble damages. "Willful infringement" reforms must dramatically cut back on the ability to seek such damages and, even if sought, limit the circumstances in which increased damages can be awarded.

3. ***Force courts and patent damages experts to fully consider the issue of “apportionment of damages,” especially for products incorporating numerous innovative features.*** Patent owners often seek damages based upon the entire profit or value in an infringing product, disregarding an infringer’s contributions that are independent of the patented invention, but are responsible for substantial economic value in an infringing product. “Apportionment of damages” reforms should both (a) clearly and plainly codify the court’s obligation to distinguish (from any value arising from a patented invention) the contribution of the infringer through features or improvements it added, manufacturing efficiencies it developed, and/or business risks it undertook to commercialize the infringing product and (b) set out with equal clarity the appropriate bounds for application of the so-called “entire market value” rule.
4. ***Permit the public to provide patent examiners with relevant prior art before the decision is made to grant a patent.*** Patent owners are sometimes unaware of important information that a patent examiner might use to reject an application for patent. “Pre-grant submissions” reform permits any member of the public the opportunity to provide to the patent examiner potentially relevant information on issues of patentability.
5. ***Provide for a post-issuance revocation opportunity for all patents throughout the life of the patent, starting first with a 9-month window for an “all issues” post-grant opposition.*** Patent owners bring infringement actions on patents of questionable validity that have been issued without any opportunity for significant input by members of the public. The Coalition supports reforms that would permit members of the public to seek a post-issuance revocation of any issued patent at any time during the enforceable term of the patent. The Coalition proposal in this regard comes in two parts. The first of the two parts would provide for a “post-grant opposition” that would open a 9-month window after a patent issues during which any member of the public could seek cancellation of a patent based upon any issue of patent invalidity that can be raised in a patent infringement action.
6. ***Expand the “inter partes reexamination” procedure so that it can serve as a “subsequent window” for post-issuance patent revocation of an issued patent.*** As a “subsequent window” for post-issuance revocation, the existing procedures for “inter partes reexamination” should be greatly expanded. Patent owners today are wholly or partially insulated from the “inter partes reexamination” provisions designed to permit the public to challenge questionable patents at any time during a patent’s life. “Reexamination” reforms should open all issued patents to inter partes reexamination and place tight restrictions on any estoppel that might limit a challenger from later attacking the invalidity of a patent. Congress might further consider opening these reexamination proceedings to consider the “adequate disclosure” issues, *i.e.*, “written description” and “enablement,” in all inter partes reexaminations, not just (as today) where the patent owner amends the claims.
7. ***Provide for universal 18-month publication of pending patent applications.*** Patent owners today can keep patent applications secret within the United States Patent and Trademark Office until a patent actually issues, which can be many years after a patent is first sought. “Publication” reform should mandate publication of all pending applications for patent at 18-months from the date the patent is first sought, facilitating both pre-grant submissions of

information to the patent examiner and preparations by an opposer for the filing of a post-grant opposition.

8. ***Remove the “in this country” limitation on the use of prior, non-published knowledge of an invention that can qualify as patent-invalidating “prior art.”*** Patent owners today can seek and enforce patents on technology that has previously been made fully accessible to the public, unless an accused infringer establishes that the technology has been disclosed in a “printed publication” or that it was known from uses, sales, or other activities that took place *in the United States*. In today’s “flat world,” reforms should permit an accused infringer to invalidate such patents based on the technology’s full public accessibility anywhere, including through use or sale *outside the United States*.
9. ***Eliminate the ability of a patent owner to rely on a secret “invention date” to avoid prior art that would otherwise invalidate a patent.*** Patent owners today can negate the effect of “prior art” that otherwise would render a patented invention invalid (as lacking novelty or obvious) by relying on secret activities to establish an earlier “invention date.” This frustrates the ability to study a patent, search for relevant prior art, and make a firm determination that readily available prior art will invalidate the patent. Needed reforms should eliminate the ability to use such “invention dates” to negate such prior art that would otherwise invalidate the patent.
10. ***Expand the right of a prior inventor who commercializes an invention in the United States to continue using the invention, even if someone else subsequently seeks and obtains a patent on that invention.*** Patent owners today can seek and enforce patents on technology that another inventor is ready to place or has already placed into commercial use in the United States. “Prior user rights” reforms afford such inventors, as well as those that they authorize to work their inventions, an expanded defense to infringement that can allow these commercial users (including those who have completed substantial preparations for commercial use) to commence or continue that use without liability to the patent owner.
11. ***Provide inventors an incentive to seek and obtain fully valid patents – and pave the way for increasing the responsibilities on inventors to work closely and cooperatively with patent examiners to achieve this result.*** Patent owners today justifiably resist providing patent examiners with information that would be the most useful for assuring accurate and complete patent examination. They cite a heightened risk of “inequitable conduct” allegations because the most useful types of information that could be offered to a patent examiner multiply the grounds on which it can be later alleged that the inventor misrepresented information in the course of efforts to fully and candidly explain the prior art and its relevance. “Inequitable conduct” reforms must eliminate this anomaly and provide immunity from a patent unenforceability defense based upon “inequitable conduct,” but *only* for inventors that secure fully valid patents. By immunizing valid patents from “inequitable conduct” allegations through such a “valid patent safe harbor,” the enforcement of the “duty of candor and good faith” would be aligned with the policy objective of actually promoting candor and good faith in dealings with patent examiners and set the stage for increasing the responsibilities of inventors in the patent examination process.



12. ***Heighten the transparency of patent validity/invalidity assessments and eliminate subjective standards from such assessments.*** Patent litigants today are typically confronted at the onset of a patent litigation with issues of patent validity and enforceability whose ultimate resolution is very difficult to predict. This non-transparency arises from the discovery-intensive nature of the legal inquiries relating to patent validity issues. The aggregate impact of a set of patent law reforms should strip away the non-transparent elements in the patent law, including the so-called “subjective elements” in patent litigation. A full patent reform package should mean that the validity of a patent can be assessed under objective criteria, by considering only publicly accessible information relating to the patented invention. Successful reform would, therefore, substantially eliminate the need for the extensive discovery of “invention dates,” subjective motivations, contemplations of “best mode,” or secret commercial efforts.

**Relationship to the July 26 Chairman’s Substitute to HR 2795**

Mr. Chairman, the Coalition’s approach to patent reform should be familiar to you and other members of the Subcommittee. This approach is quite similar to the agenda you first advanced in a Committee Print of April 14 of last year and then later refined in HR 2795, the bill you introduced last June. On July 26 you then tabled a substitute text to HR 2795 that the Coalition has since used as a basis for its efforts.

Allow me to describe the relationship between your July 26 substitute text and the proposals that Coalition members now advocate for patent reform, starting with the first substantive section of the July 26 substitute text, section 3, and continuing through section 9, the last substantive section of the substitute.

First, with respect to the first-inventor-to-file reforms in section 3, the Coalition has lent its full support to the incorporation of this principle into U.S. patent law. The Coalition proposal, however, would establish a more extensive one-year “grace period” than is contained in the July 26 substitute text. This proposal for a more extensive grace period was developed after some extended dialogue with members of the university community. In all other respects, the Coalition is fully aligned with the move to a first-inventor-to-file system as set out in section 3 of the substitute.

Second, section 4 makes additional significant improvements to the U.S. patent system. However, again after some extended consultation with the university community, the Coalition now supports some additional strengthening of the provisions for an inventor’s oath or declaration compared with the provisions in the July 26 substitute. Otherwise, the Coalition is in full support of the extensive improvements to the patent system set out in section 4. This specifically includes the implementation of the recommendation of the National Academies of Sciences to repeal the so-called “best mode” requirement.

Third, the Coalition fully endorses section 5. That section will strengthen and expand the “duty of candor and good faith” through a codification of the duty and more administrative attention to its enforcement. However, section 5 would implement the recommendation of the National Academies to limit the unenforceability defense based upon allegations of “inequitable conduct,” but only where the inventor obtains a fully valid patent. The substitute provides precisely the type of incentive to seek and obtain fully valid patents that, first, will advance the goal of patent quality and, second and equally

importantly, will at last pave the way for the increasing applicant responsibility in the patent examination process.

Fourth, the Coalition supports the intent of section 6 to adopt key civil justice reforms related to both compensatory and punitive damages. On the punitive damages side, the July 26 substitute text hits all the right notes and, again, largely implements the recommendation of the National Academies on this point.

On the issue of compensatory damages, Lilly and other members of the Coalition oppose limiting patent damages through the so-called “prior art subtraction” principle. Using this principle would deny many deserving inventors adequate damages. That said, however, the Coalition supports the intent to assure that the principle of “apportionment of damages” is given full and proper weight in patent damages determinations, especially where a complicated product or process incorporates substantial innovation arising from a multiplicity of patented and unpatented inventions.

While the apportionment issue has been contentious and has not produced a consensus on the statutory amendment needed to best address the issue, Lilly believes that the patent statute should be amended to state that, in awarding damages based upon a reasonable royalty, the factors relevant to such determination should include any apportionment required to assure that the damages awarded do not exceed the economic value contributed to the infringing product or process by the use made of the invention. Such apportionment must account for any economic value attributable to the use of other inventions in the infringing product or process, whether or not patented; other features or improvements added by the infringer; the infringer’s manufacturing processes; and the business risks, other than the risk of potential patent infringement liability that the infringer undertook in commercialization. On the other hand, if a sufficient nexus is established between the demand for the infringing product or process and the infringing use made of the invention, the reasonable royalty may be based upon the entire value of the infringing product or process and may further take account of conveyed and other derivative goods.

Fifth, the Coalition is in substantial agreement with section 7 that provides for a host of patent quality and other civil justice reform improvements, most notably universal 18-month publication of pending patent applications, expanded prior user rights, and new opportunities for post-issuance revocation of a patent. Coalition members support expanding – *in an appropriate manner that is protective of the legitimate interests of inventors in securing “quiet title” in their patents* – the opportunities for post-issuance patent revocation by the United States Patent and Trademark Office that would assure the availability of a review proceeding in the Office at any time during the term of any issued patent, on the request of any member of the public.

The July 26 substitute text, like proposals endorsed by the Coalition supports the ability of any member of the public to seek post-issuance revocation of any issued patent at any time during its term through two alternative mechanisms: an “all issues” post-grant opposition that must be sought in the 9-month window after a patent issues and an expanded “most issues” inter partes reexamination opportunity that affords a “subsequent window” for revoking a patent after the 9-month window has closed. The “subsequent window” would extend time-wise throughout the remaining 20-year term of any issued patent.



Lilly is concerned, however, that the new (and, thus, untested) post-grant opposition procedure not be expanded beyond the 9-month window. All of the provisions for post-grant opposition are tuned to affording full and fair opportunity to oppose a patent during the 9-month window after the patent has issued.

Recently, the Patents Depend on Quality Act of 2006 or the "PDQ Act," numbered HR 5096, was introduced. HR 5096 proposes just such a "subsequent window" for post-grant opposition. Lilly, like other Coalition members, opposes use of the post-grant opposition procedure as a "subsequent window" for post-issuance revocation of a patent. That said, we do support the availability of an expanded inter partes reexamination procedure to serve the purpose of effective post-issuance review.

As proposed in the July 26 substitute text, inter partes reexamination would be open to all significant issues of patent validity, with two notable exceptions. Patent-invalidating prior art that is in the form of the mere knowledge or use of an invention, that is the unpublished knowledge, would not be considered in the expanded inter partes reexamination. Second, unless the claims of the patent are amended, the issues of adequate disclosure in the patent to justify their validity and the related "definiteness" requirement cannot be considered. These are the so-called "section 112" issues of patent validity.

Within the past month, however, the Intellectual Property Law Section of the American Bar Association has reaffirmed the Section's support for expanding inter partes reexamination to include precisely such section 112 issues for never-amended claims in the patent. While the Coalition has not taken a position on the inclusion of section 112 issues for never-amended claims, it is an idea that could merit further discussion.

As between the many changes to a post-grant opposition procedure that would be needed for it to be a fair and balanced procedure if used throughout the life of a patent – and the expansion of the availability of inter partes reexamination (which is already a life-of-the-patent opportunity for post-issuance revocation of a patent) – the latter vehicle would appear to be the vastly more promising option for reaching a broadly based consensus on how to address questionable patents once issued.

Sixth, the provision in section 8 of the substitute text would provide for expanded public input into the patent examination process by permitting pre-grant submissions of information. The Coalition supports this provision, especially in light of the expanded post-issuance opportunities for members of the public to seek revocation of a patent once issued. This new provision should have the effect of reducing the number of patents that will be opposed because it will permit inventors and patent examiners to address and resolve issues before the patent issues with questionable or invalid claims.

Seventh, the final substantive provision of the July 26 substitute text, found in section 9, contains a provision addressing potential venue abuses. HR 5096 contains an alternative provision that would mandate transfer of venue in certain situations. The Coalition agrees that the issue of potential venue abuses should be addressed by legislation, at least in the context of a full, fair, balanced and complete effort at patent reform. The Coalition supports a transfer of venue provision as a means for doing so, similar to that in HR 5096.

### The Imperative to Reject Proposals for Unwise Reforms

Finally, but by no means least in terms of importance, the July 26 substitute text is notable from the vantage point of Lilly and other Coalition members because of what it does not contain. It contains no provision that would change the current law under which, as a general rule, the courts will enjoin ongoing infringement of a valid patent once a final judicial determination has been made that the patent meets all the legal requirements for validity and has been infringed. In this regard, the substitute text differs from HR 5096, which contains precisely a provision on the standard to be applied for permanent injunctions.

The HR 5096 provision on injunctions is both unwise and unnecessary. The comprehensive reforms supported by the Coalition should address critical aspects of the patent quality deficit and result in meaningful civil justice reforms that benefit patent challengers. The reforms will diminish the number and nature of questionable patents and will expand the means for quickly correcting any patents mistakenly issued by the United States Patent and Trademark Office. The impact of these measures will moot any reasoned justification for limiting the right of the inventor to stop ongoing infringement once a patent has been finally adjudicated as valid and infringed. Where a patented invention provides truly innovative technology that an infringer cannot avoid by designing around or creating an alternative innovation, the economic value of the inventor's patented innovation should be measured by the inventor's assured ability to exclude others, absent extraordinary circumstances.

Patent quality and related civil justice reforms should, thus, eliminate the specter of putting someone out of business based upon alleged infringement of a questionable patent that cannot be effectively attacked. Where the expanded opportunities for an accused infringer to mount full and complete challenge to a patent have failed and the patent in question that has been thusly shown to meet the rigorous validity requirements that Congress has imposed – that is, the patented invention that is shown to be unquestionably new, non-obvious, fully described, completely enabled, and defined with definiteness – fairness to the patent property owner should mean stopping the ongoing infringement of the patent.

On the question of the wisdom of abolishing the general rule that ongoing infringement of a valid patent should be enjoined, Congress should be mindful that the world is watching. After 216 years of a patent law based upon an exclusionary right, Congress would be creating a regrettable global precedent if it rejects the general rule that a final adjudication of validity and infringement of a patent should lead to enjoining its ongoing infringement. Under such a precedent, the United States can expect that many other countries will look to changing their own IP laws to reflect any diminished standard of protection afforded in the United States. If a provision is TRIPs-compliant when written into the U.S. IP laws, that provision will be TRIPs-compliant when adopted elsewhere. It is unimaginable that such a U.S.-originated provision of law could be successfully attacked by any U.S.-based interest when it appears in foreign IP laws.

If the patent and copyright laws of a country were to mandate, as HR 5096 would provide, that no injunction can issue until the court considers “the fairness of the remedy in light of all the facts and the relevant interest of the parties associated with invention,” what types of “relevant interest” of an infringer will come into play and what limitation will exist on the “facts” that a court must take account? Perhaps the interest of the infringer is in offering the public cheaper generic drugs and one of the “facts”





is that the generic drug will be more affordable for more potential patients. Perhaps the interest of the infringer is in offering the public a cheaper computer operating system that has a more secure web browser embedded into it and one of the “facts” in that case is that the public would benefit from a computer system less susceptible to attack from worms and viruses. In both cases, absent the right to enjoin patent and copyright infringement in a predictable manner, who will be investing in the next AIDS medicine or Windows operating system?

#### **Moving Proposals Into Legislation**

Let me offer a few concluding remarks on “Patent Reform Present.” One of the disappointments on the part of at least some members of the Coalition is that their early support for fair, balanced and comprehensive reform measures, patterned largely on the July 26 substitute text, has not led to a broader consensus on the content of reforms that are both needed and wise. As one member of the Coalition, Lilly is committed to continue the efforts to find common ground for such reforms.

The problems noted in 1966 by the President’s Commission were not significantly different from the problems that the Advisory Commission sought to address in 1992. The conclusions from the 1966 and 1992 efforts remarkably align with the recommendations that the National Academies announced two years ago, following an intensive four-year study. With four decades of consonant analyses of what must be done to improve the operation the patent laws, Lilly urges that the 109<sup>th</sup> Congress *just do it*: proceed to enactment of a fair, balanced and comprehensive reform package, while resisting efforts to enact unwise reforms.

#### ***Patent Reform Future: Set the Stage for Reforms Focused on USPTO Operations***

In addition to its focus on civil justice for patent litigants, the 1966 President’s Commission focused on ultimate keys to an optimally functioning patent system – growing the quality and reliability of issuing patents, reducing the duration of the patent examination process, and, above all, better preparing the patent system to “cope with the exploding technology foreseeable in the decades ahead.” The reforms in the July 26 substitute text and the Coalition proposals will both advance these objectives and can set the stage for further reform.

Perhaps not surprisingly, however, many commentators have taken the “glass half empty” view of ongoing congressional activities. Some critics express undisguised disappointment that proposed reforms are incomplete, if not unworthy, because they fail to decisively address the Office’s role in patent quality, reliability, and pendency. Lilly disagrees. The reform “glass” will not only be half-filled after enacting the currently proposed reforms, but filling the bottom half of the glass is self-evidently the necessary first step to getting the top half filled.

Looking to the next generation of patent reform, allow me to suggest two topics that I firmly believe are needed to fill the top half of the glass. The first topic is *governance* of the United States Patent and Trademark Office. The second topic is redefining the *patent examination paradigm* for the information age.

On the first topic, many have called for the United States Patent and Trademark Office to be chartered as an independent agency, with greater flexibility in conducting and financing its operations,



and with mechanisms that assure higher standards of oversight and accountability. Congress has from time to time grappled with this issue; its pros and cons ought to be reconsidered as part of any set of next-generation reforms.

The issue of how best to manage the operations of the United States Patent and Trademark Office is not new. Fourteen years ago, in Senate testimony on behalf of the American Intellectual Property Law Association, I offered the following perspective on the importance of restructuring the Office as an independent agency, with financing reforms coupled with appropriate oversight and accountability mechanisms:

[A]n effective PTO requires that fundamental change be made in the way the PTO is managed. We believe that the PTO needs to be made an independent Government corporation. We believe that the PTO needs oversight by a private sector user committee, and we believe the PTO can't be managed with the financial flexibility it needs without a borrowing authority.

We have come to these conclusions after a wide-ranging survey of our membership. We see in recent years not improvements in quality [of patent examination] but a consistent pattern of quality being decreased.

When we survey our membership, we find the following things. We find the examining corps itself on the patent side complains of inadequate training and supervision. We see the effects of inadequate time available to examine patent applications. We see that search files in the Patent Office have, if anything, declined in quality . . . . We also see quality being compromised because of rigid production quotas and pendency goals. We also see examiners complaining of lack of training [on] substantive patent law principles.

In the end, we see that the Patent Office – at least in our survey tools -- seems to have lower morale and less motivation than 5 or even 10 years ago.

We ask that the PTO be made an independent Government corporation because we believe it needs strong executive leadership in the form of a Commissioner who would be appointed for a fixed term, and . . . would have real management responsibilities akin to what a CEO in a private company might have.

...

Finally, we would urge that Congress not apply a Band-Aid approach to PTO problems. We need to reform the patent system: the patent law and the Patent Office. A harmonized, simplified and reformed patent law and an independent, accountable and reformed Patent Office



are absolutely essential in our view to putting the PTO in the forefront among major patent systems of the industrialized world.

Hearing Before the Subcommittee on Patents, Copyrights and Trademarks of the Committee on the Judiciary, United States Senate, 102<sup>nd</sup> Congress, Second Session, on Activities of the Patent and Trademark Office (PTO), May 12, 1992, S.N. J-102-65, pp. 243-244

What has changed in the past 14 years in this analysis? If anything, the needs for a more effective United States Patent and Trademark Office have only become more acute. One cogent analysis of the current situation – an analysis that I believe ought to guide the 21<sup>st</sup> century governance of the United States Patent and Trademark Office – appears in the response of the Intellectual Property Law Section of the American Bar Association to the report of the National Academies. The IPL Section analysis is available on its website (See [http://www.abanet.org/intelprop/reports/NAS\\_Report.pdf](http://www.abanet.org/intelprop/reports/NAS_Report.pdf), Response to NAS Report). The Section outlines a four-point governance agenda for enhancing the capabilities of the Office:

1. Mandate the Office undertake a set of five-year strategic, operational, and financing plans.
2. Strengthen the existing Congressional oversight of the Office by mandating a new role for the Patent Public Advisory Committee in the five-year planning processes.
3. Establish new accountability measures through new metrics targeted to accuracy, promptness, and efficiency of the Office.
4. Address adequate and sustained financing for the Office in the context of the new planning, oversight and accountability mechanisms.

ABA IPL Section Response to NAS Report, p. 7.

The IPL Section's reaffirmation of the 1992 AIPLA recommendations merits careful consideration. Without the resources and accountability that will come from governance reforms, it is unlikely that the persistent concerns of the past 40 years over a patent quality deficit will be fully resolved.

On the second topic, the 1966 prediction of the President's Commission that the Office would be required to react and adapt to "exploding technology" has been more than fulfilled. Today, there is not a computer store in any shopping mall in the country that does not house vastly more computing power than existed in the entire world in 1966.

The emergence of the "information age" should cause a fundamental rethinking of the role of the patent examiner and the patent examiner's relationship with patent applicants. These roles and relationships, developed in the 19<sup>th</sup> century, have remained much the same since.

When the President's Commission made its recommendations, a person attempting to determine whether an invention might be patentable or not, often needed physical access to a library collection of issued patents and other publications, classified to facilitate its manual searching, that was maintained for this purpose by the United States Patent and Trademark Office. In those pre-information age days, trained patent examiners spent much of their professional careers classifying issued patents to be added to this library. Patent examiners and professional patent searchers would become expert at the contents of these patent searching libraries. The paper-based search facilities that were maintained by the Office formed the principal source for finding the "prior art" that could determine whether a patent on an invention could validly be issued.

Patent applications themselves were simpler to understand, simplifying the process of searching prior art to determine if an invention was truly new and non-obvious. Indeed, stepping back to the days when the role of the patent examiner was first defined, many patent applications were generally understood through pictures, drawings of the purported invention, or, if need be, physical models of the invention.

Those visual tools sufficed because many inventions were simple, mechanical contrivances. With a picture or model being worth the proverbial thousand words, the patent application would be augmented by a terse written description, spanning at most a few pages, to establish that the invention and could be carried into practice.

While examining patent applications based on pictures, models, and a few sheets of paper remained retained viability for decades, that viability has progressively declined throughout most the 20<sup>th</sup> century. Clearly, by the time of the 1966 President's Commission, it was clear that "exploding technology" was placing the patent examination paradigm of under significant stress. Today, that stress is manifest through remarkably changed circumstances:

- Patent searching to find the "prior art" needed to determine if an invention is validly patentable no longer depends upon physical access to the Office's Search Room. Indeed, the contents of that Search Room no longer define the starting point, much less a principal source, for the prior art that will define the patentability for many types of inventions in many technology fields. The quantity of technical information in the public domain and the various electronic technologies needed to access that information now suggest that the model of relying principally on the patent examiner for searching to identify the scope and content of the prior art be rethought.
- Understanding today's complex technologies and their relevance to a patented invention can no longer be gained from inspection of a patent model or even a page or two of simple patent drawings. Patent applications in some fields of technology today are complicated disclosures of complex systems to which subtle improvements have been made or highly intricate manipulations have been incorporated. In many technologies, a 21<sup>st</sup> century patent application consists of dozens, sometimes hundreds of pages of verbiage whose import may be fully digested only by experts practicing in a narrow field – and, even then, only after careful and extended study. Today, for such patents, attempting to fully comprehend the import of the invention is a formidable intellectual challenge – and one that was unknown when the job of the patent examiner was first created.

- The quantity and intensity of patenting in many areas of technology has grown enormously. The sheer volume of work, whether measured in terms of numbers of patent applications filed, pages of patent disclosures to be comprehended, or numbers of claims presented for examination has increased by orders of magnitude since the examination paradigm in the United States Patent and Trademark Office was first established. Whereas once a patent office could operate with dozens to hundreds of skilled patent examiners, the work of patent examiners requires hiring more than a thousand new patent examiners each year for the foreseeable future just to prevent the current system from imploding. The quantity and intensity of patenting today offers no prospect of scaling the current model of patent examination to a level where the skills, experience and time available for accurately and completely examination patent applications could be achieved in a timely manner.
- The advance of technology has become vastly more rapid. For many patentable discoveries, the typical period needed for patent examination today may long exceed the economic lifespan of the patented innovation. Granting the right to exclude others only after the ability to do so has become economically meaningless makes no sense whatsoever to an inventor. More rapidly advancing technological innovation juxtaposed against a more slowly moving patent examination process also spells disaster for the public. Anyone seeking to implement a new technology needs to know what freedom of action might exist and what embodiments of a new product might be found to infringe patents of others. Where patents remain pending and the ultimate scope of the patent right remains unsettled, the patent system may discourage rather than encourage investments in innovation.

These changed circumstances, among a host of others, suggest that new principles ought to govern any 21<sup>st</sup> century paradigm for patent examination. Such new principles should redefine the respective roles for the patent examiner, the patent applicant and the public. The needed reforms will most certainly result in *increased applicant responsibility* and *increased examiner accountability*. To enhance the quality and reliability of patent examination, the patent examiner must become more accountable for more fully and explicitly setting out in the public record the basis for patentability of the invention and the patent applicant must play a more affirmative and complete role as the examiner's guide.

Increased applicant responsibility and increased examiner accountability mean redefining respective roles: Who should bear what responsibilities for identification of prior art, for understanding its relevance and significance, for elucidating the relevant relationships between the prior art and the invention, and for assessing the basis on which the patentability criteria are met.

As noted earlier, in his Senate testimony on April 25 of last year, Director Dudas urged that "increased applicant responsibility" be incorporated into the patent examination process. In the year since, the Office has published proposed rules that, in some situations, would dramatically increase such responsibilities on patent applicants.

Whatever the merits of the recent efforts by the Office on issues of applicant responsibility, such efforts have been and will continue to be misguided, if not entirely counterproductive, unless and until Congress enacts the Coalition-supported reforms in the July 26 substitute text that would create the "valid patent safe harbor" from "inequitable conduct" allegations. Indeed, the complete failure of the



Administration to support the Office's efforts by championing the "inequitable conduct" reforms in the July 26 substitute text is all but inexplicable.

Assuming that such reforms are accomplished, Congress should work with the Office and with patent applicant constituencies on the issue of a new patent examination paradigm that – in a fair and balanced fashioned – works to increase both applicant responsibility and examiner accountability.

### ***Conclusions***

The time is ripe for enactment of collection of major patent system reforms, one desirable impact of which will be greater patent law harmonization. The Coalition for 21<sup>st</sup> Century Patent Reform has compiled and is seeking enactment of such reforms. They address a patent quality deficit and otherwise advance the cause of civil justice for patent litigants.

Lilly, as a Coalition member, believes that the burden to demonstrate the wisdom of these reforms has been met. Four decades of study of what is needed to make the patent system work better has produced consistent conclusions that reforms now supported by the Coalition are wise and responsive to the root causes of today's patent quality deficit.

Calls for the delay, division or defeat of these reforms should not be heeded. The burden of persuasion should now fall heavily on those who would obstruct these efforts. Nay-sayers should be put to the task of demonstrating how this fair, balanced and comprehensive effort to address the patent quality deficit and advance civil justice in patent litigation ought not to proceed in its current form.

Finally, as we think through the implications of prompt action by Congress on these patent reforms, the April 25, 2005 Senate testimony of Director Dudas appears to us to require particular reflection. Congress will need to make further changes in the patent law to make the United States Patent and Trademark Office's work more reliable and more prompt. Perhaps the greatest collateral benefit to the patent system from success of the current reform efforts will be laying the essential groundwork for future reforms – first, in United States Patent and Trademark Office governance and, second, in the century-old paradigm for patent examination.

We would encourage, therefore, that this Congress complete the reform process that this Subcommittee began last April so that the next Congress can begin the work of crafting a next generation of needed patent reforms.

April 27, 2006  
Indianapolis, Indiana

Mr. SMITH. Thank you, Mr. Armitage.  
Mr. Mueller.

**TESTIMONY OF GARY MUELLER, PRESIDENT AND CHIEF  
EXECUTIVE OFFICER, DIGITAL NOW, INC.**

Mr. MUELLER. Thank you, Mr. Chairman and Members of the Committee, for allowing me to be here today and express my views on patent harmonization.

I would also like to thank the competitive—the Association for Competitive Technology for its leadership on this issue and helping me prepare for this testimony.

My name is Gary Mueller, and I'm the president and chief executive officer of Digital Now. We're a small, Herndon-based—Herndon, Virginia-based company. We have several employees on staff locally and a handful of programmers throughout the United States, and we highly leverage our partners and our suppliers in our business.

Despite our small size, we think we're poised to take advantage of emerging technology and being a leader in consumer services on the Internet. In the past, we've built film scanners and Internet photo sites for photo finishers. Now we're providing digital safe deposit box services to safely and securely store files, digital emotional property that belongs to the consumer, such as digital photos, home videos, important documents and records, as well as digital IP, or intellectual property, that consumers buy over the Internet, such as music, ring tones, e-books, and games.

Let me say up front that I support the changes in the patent processes in the U.S., including the harmonization efforts. I specifically support the first to file proposal and the proposal to file all publications or patent applications within 18 months of their filing date.

I'll try to be succinct. I have four points to make from a small business perspective. One disclaimer first. I am not a patent attorney.

Okay. Point one. File locally, grant globally. In 1999, we got a patent for a lamphouse technology quite unique for—and a film-scanning technique capability. Because of the cost and complexity, we decided not to file outside the United States. It was a mistake.

In the fall of 2000, I was at Photokina, which is a large trade show for us in Cologne, Germany. And I was shocked when Gretag, a large equipment company based in Regensdorf, Switzerland, was openly showing the use of our patent in a new competitive scanner.

When I discussed the issue with our patent attorney, he just told me it was too late. Wait until they enter the U.S. market.

The lack of that patent protection cost me European sales and revenue. That impacted U.S. jobs and hurt my ability to build a great next product.

So I'm sensitive to this issue of harmonization, as someone who has to make payroll and watch the bottom line. It makes no sense to pay for the same work of patent searching and examination to be done for the same invention in each country where patent protection is sought. Small companies simply can't afford it. A single search and examination in a single office should be recognized in every other country where patent protection is sought.

Point two. File now and attract the cash cow. As a small business, our goal is not to put competitors out of business, but to bring others into our businesses. Patents are a key tool to attract investment equity, secure business loans, develop supplier and channel partners, and, yes, ensure that we're fairly compensated for what we created.

When I learned Gretag was violating our patent, I did not want to put them out of business. I wanted to play "Let's Make A Deal." As a big company, they had more resources, stronger world-wide distribution channels, and a customer support infrastructure. That's leverage for what we bring to the market.

We are now seeking new investors for our new initiatives, and guess what they ask first? "Do you have any patents?"

We've already mentioned the Mossinghoff study. So I won't go into that. But I believe that that study supports the position of first to file, and we see that as an important element for our business as well.

Point three. Turbo charge the PTO. In my own view, speed, or the lack thereof, is one of the biggest issues facing my industry when it comes to patents. They say that speed kills on the highway. Well, pendency kills on the information superhighway. The longer I have to wait for a patent to be granted, the longer I have to wait for that tool to attract investment and partners.

The average length for receiving a patent from the U.S. PTO is 29 months. For software, a very changing industry, the average pendency is even longer—40 months. Our own patent on image rotation, automatic image rotation, took us almost 6 years to get.

I've had to abandon other patent applications and, therefore, the business opportunities that those patents represented because the market moves faster than the PTO office. The opportunity to participate and probably improve the marketplace was lost.

In today's fast-paced world, a patent delay is a potential market denied. Why? Because, as a small business, I have to weigh the risks of ongoing costs of R&D and commercialization against the ability to protect that investment from those that can outpace me.

This also speaks to speed in publishing all applications in 18 months. If someone has beaten me to the punch, I want to know about it right away, as soon as possible, and cut my losses. Go to plan B.

If not, I'm in a better position to raise funds, take the additional risk, continue development, and, best of all, get a product to the market and sell it.

Clarity would come with the publication of all patent applications at 18 months after the filing date. We would have more information about the competitive environment in which we operate.

Point four. Small business entrepreneurs need an on-ramp to get in the game. As a small business, we have to deal with "bet the company" issues almost every day, much more than the larger counterpart sitting at the table. We are often in the red to prove our technology and our business models.

Consequently, we have to ante up early in the process \$30,000 or more to get through the patent application process. That money would otherwise be used to keep the doors open by paying the rent or making the payroll. To suggest that we should not spend this



precious capital on improving our products and services, but spend it by rushing to the patent office is a very tough sell in our environment.

There is a real and persistent fear among entrepreneurs, who are often cash poor, that inventions disclosed and patents applications once published will be stolen by larger, deep-pocket competitors. These fears can be best addressed by a patent system driven by quality, clarity, and speed.

Achieving progress on these points helps a lot. Education is also going to be important to re-educate the small entrepreneur.

In general, bad behavior fosters bad behavior. Bad behavior because of the length of the patent process, the backlog of the PTO, and the system in general fosters bad behavior by entrepreneurs and inventors.

Harmonization, improving the PTO performance will foster good behavior, especially with small business entrepreneurs. We will trust the system, have greater clarity, know where we stand with our initiatives and ideas, and we'll use the system to our advantage.

Mr. SMITH. Mr. Mueller, we're going to need to move on. I think you got your four points in, though.

Mr. MUELLER. I did. Perfect timing.

[The prepared statement of Mr. Mueller follows:]

PREPARED STATEMENT OF GARY MUELLER

STATEMENT OF

GARY MUELLER

PRESIDENT & CHIEF EXECUTIVE OFFICER

DIGITAL NOW INC.

BEFORE THE

HOUSE JUDICIARY SUBCOMMITTEE ON COURTS, THE INTERNET AND

INTELLECTUAL PROPERTY

UNITED STATES HOUSE OF REPRESENTATIVES

Mr. Chairman and Members of the Committee:

My name is Gary Mueller, – I am President & Chief Executive Officer of Digital Now, Inc. (“Digital Now”) a technology company based in Herndon, Virginia. Thank you for providing the opportunity to express my views on Patent Harmonization. I would also like to thank the Association for Competitive Technology for helping me prepare for this hearing, and for its leadership role on IP issues for small business.

Today I will focus my testimony on two major components of H.R. 2795 (“Patent Reform Act of 2005):

- Changing U.S. law from a *first-to-invent* system to the international standard of *first-inventor-to-file*; and
- Expanding the current requirement that patents be published 18 months after filing, such that it applies to *all* patents.

**Digital Now – Its Success and the Role of Patents**

Digital Now is a small company – we have only a few employees on staff and a handful of programmers scattered across the country. Despite our size, Digital Now is poised to be an industry leader in digital imaging technology and the Internet-based consumer. I firmly believe that one of the reasons why my small company can compete against larger firms is because of the subject of today's hearing—patents.

My belief in the patent system comes not only from the success of Digital Now, but my own 25 years of experience in leadership positions in the high technology and film industries. At Xerox and Kodak, I saw how important patents were to those large companies – and that patents were the pathway whereby they incorporated innovations created by smaller firms. When I decided to give up the lifestyle of big business and follow my entrepreneurial itch, I took with me the knowledge that patents would be a key part of my future.

Digital Now started in 1996 with the help of private equity funding from a venture capital firm based in Australia. There have since been several iterations of ownership, structure, and even a name change. As the camera and photo processing market has changed dramatically over the past ten years, so too has my company.

In 2000 a significant portion of Digital Now's revenue was hardware. We built scanners for photo finishers that digitized conventional film photos. These scanners were sold to both traditional photofinishers and Internet-based photo sites like Snapfish and Shutterfly. We sold in the US, Europe and Japan. We also helped brick-and-mortar photo processing retailers by hosting a store-branded web presence that allowed their customers to share and store photos online.

Today, Digital Now is mostly a software company. We create software tools to help consumers enjoy a richer online experience with their digital photos. Digital Now is introducing a new suite of services such as MyStorageNow that allow users to remotely store what I like to refer to as “emotional property.” Emotional property is that precious collection of personal content we own that transcends its market value: photos, home movies, and important papers. As anyone who watched the tragedy of New Orleans unfold, we know that while protecting life is paramount, the things that make that life a little more special are also worthy of protection from loss and damage. Many of those hit by Katrina lost pictures of their children’s birthday parties, first day of school, and weddings. Photos, portraits and videos of our children growing up are irreplaceable.

My company is actively working to make important items like photos, documents, music and movies secure and easily accessible. Consumers will be able to transfer their emotional property to and from my company’s secure system, from their camera phones, PDAs, personal computers, and almost any other communications device that can be used to create or display images. Software created by Digital Now will make the manipulation and sharing of photos easier than ever, no matter what cable, internet, or mobile provider you use.

We’re able to compete and negotiate with larger industry players, in part because we have protected our innovations with patents. Our first set of patents was for innovations involving film scanners. We developed a unique way to use a tri-color red, green and blue lamp housing in our film scanners to scan and digitize images from film to create index prints.

Going forward, Digital Now will rely more on its most recent patent for automatic image rotation. We have developed a way for software to determine the proper orientation of photos—so that when photographers rotate their cameras ninety degrees to capture greater vertical area, there is no need to manually rotate the image after transferring from camera to computer. We do this using a “*neural net*” to automatically detect the natural orientation of a digital image, and then automatically rotate the image file. The trained neural net is our patented innovation, providing tools and user friendliness that will be a unique service and product differentiator.

Small businesses, such as Digital Now, use patents to extend the return on investments we make in new technologies. Our goal is *not* to put competitors *out* of business, but to bring others *into our* business. We use patents as a tool to attract lenders, investors, and business partners, as well as to help generate capital to fund our next generation of innovations.

**Small Businesses Need Harmonization of Patent Law**

I have seen the patent system work for small business – and it works for us today at Digital Now. I have also seen the system fail us. Unfortunately, the system is failing small business more and more often – both at home and abroad. I believe that world-wide harmonization of patent laws would benefit American businesses, including small businesses. It will reduce the cost and complexity of obtaining patent protection around the world. I understand that there are some steps that we have to take in the U.S. to achieve world-wide harmonization. We will have to change our patent system to award the first-inventor-to-file, rather than the first to invent. I support that change. I also

support a change to the U.S. patent system that would require publication of all patent applications 18 months after filing.

A patent system that requires applications for the same invention to be researched and re-examined in each country where patent protection is sought makes little sense in today's global marketplace. Instead, a search and examination in one office should be recognized in every other country where an applicant seeks patent protection. The present system – where the process of search and examination has to be repeated in every country – is a waste of time and money. Businesses that pay for the work to be done bear these costs, especially small businesses that have less resources than their larger competitors.

Ideally, small business owners would have a single entry point to the system – in the U.S., the U.S. Patent and Trademark Office (USPTO) – where the required application is filed, searched and examined and then is automatically transmitted to selected foreign offices. I realize that we may still be subject to additional foreign patent fees and perhaps translation costs to local languages. But I would urge you to mandate changes at the international level that take full advantage of modern information technology to hasten the process of international applications and reduce costs (including for substantive searching and examination and translations) for the good of all U.S. businesses.

In a world economy based increasingly on the intellectual content of products and services, intellectual property is the leading edge of the competitive position of U.S. businesses – especially small businesses. It is estimated that 50 percent of U.S. exports

depend on some form of intellectual property protection.<sup>1</sup> In 2005, that means nearly a half-trillion dollars worth of U.S. exports relied on laws that protect intellectual property.<sup>2</sup> A harmonized world-wide patent system will better enable U.S. small businesses to quickly and affordably establish a beach head in foreign countries.

### **Successful Harmonization Requires Political Leadership**

Efforts to harmonize the patent systems of the world have been ongoing for more than 40 years, but with disappointing results. Given the clear benefits that world-wide harmonization brings, this is a world-wide political failure. If we've embarked on a path towards harmonization, then let's start what we finish. In short, we need the courage and political commitment to get the job done. Let me explain my motivation for making that last point.

The Patent Cooperation Treaty ("PCT"), which was proposed by the US in 1966 and concluded in 1970, established a system by which a single application filed in a single language in a single country would translate to multiple patent *applications* in all Treaty member countries (which now number 130). Although the PCT has worked well since its inception, it has a built-in defect. It is only a procedure through which a patent application for an invention is *filed* in a number of countries, but does not avoid the repetition of *searching* and *examining* that application over and over again in each country where patent protection is sought. The irony here is that avoiding repetitive searches and examinations was a prime motivation for the entire Treaty effort. At the start of the PCT process, the Organization that is now the World Intellectual Property

---

<sup>1</sup> See Senate Report 108-344, FY 2005 Senate Report for Commerce, Justice, and State Appropriations bill

<sup>2</sup> See the CIA World Factbook—United States, located at <http://www.cia.gov/cia/publications/factbook/geos/us.html>

Organization (WIPO) noted the following defects in the then-current world-wide patent system:

[A]ll countries issuing patents, and particularly the countries having a preliminary novelty examination system, have to deal with very substantial and constantly growing volumes of applications of increasing complexity, that in any one country a considerable number of applications duplicate or substantially duplicate applications concerning the same inventions in other countries thereby increasing further the same volume of applications to be processed, and that a resolution of the difficulties attendant upon duplications in filings and examination would result in more economical, quicker, and more effective protection for inventions throughout the world thus benefiting inventors, the general public and Governments.<sup>3</sup>

WIPO then went on to recommend “that the Director of [WIPO] undertake urgently a study on solutions tending to reduce the duplication of effort both for applicants and national patent offices . . . with a view to making specific recommendations for further action.”<sup>4</sup>

The same problem the nations of the world saw in 1966 (duplication of effort to search and examine applications concerning the same inventions in countries where patent protection is sought), leading to the same result (unnecessarily high cost for inventors seeking world-wide protection), and requiring the same solution (world-wide harmonization leading to world-wide recognition of the results of searches and examinations) are all the same today. This is why it is particularly disappointing to me that efforts at world-wide harmonization have failed – including an effort at WIPO that spanned the years 1984 to 1991 and an a more recent effort at that organization that appears unlikely to succeed. The effort that ended in 1991 failed, as I understand it, due

<sup>3</sup> See BIRPI document CEP/II/12, The Executive Committee of the International (Paris) Union for the Protection of Industrial Property (Second Session, Geneva, September 29, 1966), paragraph 46 (reproduced in the post-Conference documents of the Patent Cooperation Treaty, PCT/PCD/1, October 16, 1970).

<sup>4</sup> *Id.*



to fundamental differences between the U.S. system and that of the rest of the world – based largely on the U.S. system that grants a patent to the first inventor, rather than the first-inventor-to-file a patent application.

I have learned that two U.S. Presidential Commissions recommended the U.S. change its patent system to a first-inventor-to-file system – first in 1966 and again in 1992.<sup>5</sup> However, the U.S. ignored Commission recommendations both times leaving the international efforts without a key element of harmonization. No wonder WIPO couldn't deliver.

If anything, the complexity and cost of the international patent system has grown since PCT efforts began in 1966. The General Accounting Office quantified the costs in a June 2003 study on foreign patent filing for small companies.<sup>6</sup> That study looked at the total costs for filing (including official fees, legal costs, and translations) in six European countries (France, Germany, Italy, Ireland, Sweden, UK) Canada, Japan, and South Korea. The costs were estimated as ranging from \$160,000 to \$330,000. These costs were estimated in 2003 and were only for nine countries – so they would have to be updated and expanded.

I am not a patent attorney, but I know firsthand how a lack of harmonization can cost small businesses. Because of the cost and complexity, my company decided not to file outside of the United States for one of our hardware patents. A few years later, I was at a major trade show in Germany and saw a competitor openly discussing the use of our

---

<sup>5</sup> See, G. Mossinghoff, *Small Entities and the "First to Invent" Patent System: An Empirical Analysis*, Working Paper, Washington Legal Foundation (2005), p. 2 (footnote 3) (hereinafter "Mossinghoff").

<sup>6</sup> See, *International Trade: Experts' Advice for Small Businesses Seeking Foreign Patents*, General Accounting Office Report No. GAO-03-910, June 2003.

patented design in a new product. I discussed the issue with my patent attorney, and he told me I was basically “too late” to get patent protection in Europe. This lack of patent protection cost jobs, and hurt my ability to build the next great product.

Ultimately, the failure of the U.S. to harmonize with the rest of the world limited my company’s opportunities around the world. Harmonization might have worked well for my business, but what about others?

#### **First Inventor to File Reform and Harmonization**

In order to ensure that efforts at international harmonization of patent systems can succeed, I support the goal of H.R. 2795 to bring the U.S. patent system into alignment with the rest of the world by awarding patents on the basis of the first-inventor-to-file, rather than the current system of first-to-invent.

In a study last year, former USPTO Commissioner Gerald Mossinghoff concluded that small businesses and independent inventors would be better off with a first-inventor-to-file patent system than a first-to-invent system.<sup>7</sup> The current system of resolving conflicts between those claiming to be the first-to-invent in the USPTO – the so-called “interference system” – simply does not provide a net benefit to small entities. My co-panelist, Mr. Robert Armitage, put it well and in the following terms:

The features of the current law that should in practice impose particular hardships on the least resourceful, least well-financed inventors include the time it takes to make a final determination of which among rival inventors was first to invent. This exercise is typically prolonged – sometimes longer than the technological lifespan of the innovation. It is also enormously expensive. Sorting through an inventor’s records for potentially relevant evidence requires experienced patent counsel. It is also incredibly complicated. The United States Patent and Trademark Office proceedings used to determine who invented what first are noted for their arcane, even Byzantine character. At the end of the day the

---

<sup>7</sup> See, Mossinghoff.

resolution of the “who invented first” question can cost an inventor hundreds of thousands of dollars (alas, spending *millions* of dollars on this determination is not unknown).<sup>8</sup>

Millions of dollars is more than I can dream of spending on interference proceedings, but for big companies it’s just a cost of doing business. Again, small business gets the short end of the stick.

If patent harmonization is so clearly good for so many, why is it so difficult to achieve? There are two reasons that particularly concern small business: the need to front-load spending on ideas that may not succeed; and fear that competitors could steal inventions from published applications.

Small businesses have to deal with hard, bet-the-company issues almost every day – much more often than their larger counterparts. We are often operating in the red in an effort to prove our technology and business models. Consequently, the money we are asked to spend early in the patenting process (\$30,000 or more to draft and file an application) is money that would otherwise be used to keep the doors open by paying the rent, utility bills, or make payroll. Often, this is money borrowed from friends and family. To suggest that we should not spend this precious capital on improving our product or services, but spend it on a rush to the patent office is a tough sell indeed.

Practically speaking, changing the U.S. system to first-inventor-to-file would be of net benefit to small businesses. It is far easier to train inventors to file early than to have them keep records accurate enough to fight interference proceedings brought by companies that buy lawyers by the barrel.

---

<sup>8</sup> Mossinghoff, p. vii.

**18-Month Publication Reform and Harmonization**

Small businesses have additional worries about proposed changes to the publication of patent applications – in particular to require the publication of all patent applications 18 months after their filing date.

The current U.S. patent law provides that patent applications are published after 18 months unless an applicant requests non-publication and is not intending to file in another country that has an 18-month publication rule. Requiring publication of all patent applications after 18 months will harmonize U.S. patent law with international standards and further the basic policy reason behind the patent system – to encourage the disclosure of inventions.

However, small businesses fear losing their advantage to competitors – both in the U.S. and abroad – if all patent applications are published. This is a real fear and should not be lightly dismissed as mere ignorance. We need to ensure that as we harmonize the rules for the grant of patents, other countries play by the rules in their enforcement. It is not fair or sustainable over the long haul to disclose inventions in patents only to have them copied with impunity in foreign countries.

**Harmonization Increases Patent Quality in the U.S.**

This hearing focuses on questions of harmonization, but I would urge the Members of the Committee to seek to improve quality not only after a patent is granted, but before grant. Arguing for changes to U.S. law for the sake of international harmonization alone would be a disservice to U.S. small business. We need three things from the patent system: Quality, Clarity and Speed.

### Quality

Much has been said about the failure of the USPTO to grant patents of high quality – I understand this committee has had several hearings on the topic, and the rest of America was recently exposed to the issue when the BlackBerry became a topic of dinnertime conversation.

The recent BlackBerry case illustrates the need for patent quality. Research in Motion was obliged to settle a patent infringement action brought by NTP, Inc. for over \$600 million while at the same time the USPTO was reexamining those very patents.<sup>9</sup> Again, I am not a patent attorney and cannot possibly comment on the merits of this or any case, but clearly, the fact that the patent office took more than 3 years to reexamine and reject patents it had granted to fix a quality problem of their own creation points to a serious lack of quality control.

### Clarity

Improving the clarity of the patent system and the patents that are granted goes to the core problem facing small business in a harmonized system. Certainly, the early publication of all patent applications at 18 months after the filing date will provide clarity as to the competitive environment in which we operate. In particular, it will inform us as to what are competitors – large or small and at home and abroad – are doing. Moving to a first-inventor-to-file process also would add greater clarity to the U.S. patent system by replacing the Byzantine system of interferences to determine the first inventor with a simpler, more objective test based on the date of application. But most significantly, it

---

<sup>9</sup> See Y. Nagochi, *BlackBerry Patent Dispute Is Settled*, Washington Post, March 4, 2006, (accessed at <http://www.washingtonpost.com/wp-dyn/content/article/2006/03/03/AR2006030301489.html>)

will help small business to understand the rules for filing internationally. In today's world, there is an ever shrinking number of "U.S. Only" inventors. To build out businesses and compete effectively, we must explore the world market.

### Speed

They say "speed kills" on the highway, well, "pendency kills" on the information superhighway. The longer I have to wait for a patent to be granted, the longer I have to wait for that tool to attract investment and partners. The average length for receiving a patent from the USPTO is 29 months.<sup>10</sup> For software, one of our country's most rapidly changing industries, average pendency is even longer—40 months.<sup>11</sup> My own patent on image rotation took nearly six years.

Pendency of patent applications before the USPTO for three years or more is simply too long. It results in great ideas missing a market opportunity. I have had to abandon patent applications – and, therefore, the business opportunities patents represent – because the market changed and the opportunity to participate and possibly improve the marketplace was lost. In today's fast-paced world, a patent delayed is a potential market denied.

Patent harmonization may even improve pendency. If the USPTO could, for example, accept the results of searches and examinations conducted by the European Patent Office, there would be less work for U.S. patent examiners. PTO resources would be freed up to focus on reducing the backlog of patent applications and pendency.

---

<sup>10</sup> See [http://www.uspto.gov/web/offices/com/advisory/acrobat/ppac\\_annual\\_rpt\\_05.pdf](http://www.uspto.gov/web/offices/com/advisory/acrobat/ppac_annual_rpt_05.pdf) p.18

<sup>11</sup> See [http://www.uspto.gov/web/offices/com/annual/2004/060404\\_table4.html](http://www.uspto.gov/web/offices/com/annual/2004/060404_table4.html)

The U.S. should view harmonization as a way to free up resources that will improve the quality of patents. Small business owners should not give their lives to building up a business only to face the specter of being shut down by a patent of dubious quality.

**Government Should Educate Small Businesses about Patents**

The only way to overcome the fear of losing your idea is through knowledge. The U.S. Government must be pro-active about informing the small business community regarding the true effects of the proposed changes. For example, we need to better inform small businesses about the innovation cycle and under what circumstances patents are filed and when. It is my experience that small inventors have a tendency to tinker until the product is 'just right'. We need to make sure that small business doesn't end up making the perfect the enemy of the good, and miss the opportunity that patents present.

**Conclusion**

Patent harmonization requires both procedural and substantive reform efforts. This Committee should urge changes at the international level that will make both the process of filing a patent in multiple countries as easy and inexpensive as possible and the substantive result universal. But first and foremost, our own system is overdue for reform. Awarding a patent on a first-to-file basis promotes international consistency and results in reduced complexity here in the U.S. An 18 month publication rule harmonizes U.S. patent law with international standards and encourages disclosure of inventions. These reforms will help the cause of small business.

But I would urge this Committee to seek more than just legal changes to the U.S. patent system for first-inventor-to-file and 18 month publication. As discussed

previously, the committee must seek to ensure that the small business users of a new system understand the terms and ramifications. Congress and the USPTO must pursue the broad education of both the inventor and venture capital communities. We also need to ensure that protection for patented inventions around the world improves in concert with harmonization.

Mr. Chairman, I know that I speak for the more than 3000 small business members of ACT when I applaud your efforts to improve the patent system in the U.S. We urge you to continue in these efforts – in particular if they will speed patent harmonization at the international level and make the process of seeking and obtaining patent protection world-wide for small businesses. This is not just a narrow financial issue to lower costs. It is a fundamental issue for American business to best take advantage of the strength in innovation of this great country. In 1859, Abraham Lincoln looked at a rapidly-developing United States and saw the critical role of intellectual property in building the inventive capabilities – and wealth – of its people.<sup>12</sup> He said the patent system “added the fuel of interest to the fire of genius.” At a time when the wealth of our nation increasingly resides in the basic capabilities of people to invent and create, the strength and vibrancy of the national and international patent system cannot be compromised.

---

<sup>12</sup> Lincoln, A., *Lecture on Discoveries and Inventions*, Jacksonville, Illinois, February 11, 1859, in *Speeches and Writings: 1859-1865* (Washington, D.C.: Library of America, 1989), P.4. Lincoln saw the patent and copyright clause in the U.S. Constitution as being an essential element in the process of building a nation based on technological progress. It is in that speech that he characterized the patent system as having “added the fuel of interest to the fire of genius.”



Mr. SMITH. Thank you very much.  
Mr. Choate.

**TESTIMONY OF PAT CHOATE, POLITICAL ECONOMIST AND AUTHOR OF "HOT PROPERTY: THE STEALING OF IDEAS IN AN AGE OF GLOBALIZATION"**

Mr. CHOATE. Thank you, Mr. Chairman.

I'm here today on behalf of the Professional Inventors Alliance. The two founders of that, Ron Riley and George—

Mr. SMITH. Mr. Choate. Yes, pull the mike a little bit closer to yourself.

Mr. CHOATE. Okay. I'll be happy to.

I'm here on behalf of the Professional Inventors Alliance. Two of the founders of that organization, Ron Riley and George Margolis, are here with us today.

Small inventors are part of a group called the "small entity inventors." That is independent inventors, small businesses such as Mr. Mueller's, nonprofits, academics. They make up and contribute 45 percent of the patents done in this country.

If you remove the foreign patent applications submitted, they're the largest contributors to the patent system. They make the most patent applications. And studies done by the Small Business Administration reveal that they produce more highly sighted patents than large firms on average, and small patenting firms produce 13 to 14 times more patents per employees as large patenting firms.

They're an important part of the innovation in this country. And so, how patent law affects them is vastly important to our technological and innovative future for this country.

The question really is not whether one is for or against harmonization. Harmonization is a good thing. No one opposes having similar administrative procedures. I think it's a good thing for the world to file patents in English. English is the language of commerce in the world today.

The question of reasonable access to prior art is—is a very desirable thing, and it's facilitated by the Internet. Researchers such as myself increasingly depend upon it. Ten years ago, I employed two research assistants. Today, I employ none. The Internet serves that function actually even better. And I think no one objects to standard searches.

The question is, is in this process of harmonization, will we lower the U.S. patent standards to that of other countries, or will we raise—insist upon raising the standards of other countries to our own, which I think is the finest patent system in the world and has served us very well for two centuries?

As I take a look at the issue, there are three major issues that this patent system faces today. The first is the extended pendency rates. In the past 12 years, they've gone from 19 months to almost 30 months.

We talk about wanting a surge of innovation in this country. We can go over into Virginia, and there is something like 500,000 to 600,000 patent applications in a warehouse waiting for their turn to be considered. If we could get the pendency rate down to something like 6 months, we could unleash a vast amount of new innovations.

And what we're talking about here are some simple procedures and the Congress appropriating another billion or \$2 billion to hire more patent examiners, which would be one of the best investments this country could make.

The second major question is piracy. So much of what we're talking about today reflects our inability to deal with piracy. Now this Congress and this country led the way in the 1990's to create TRIPs, a major shift in world intellectual property rights. We created for ourselves and to get those rights, we swapped off the American apparel and textile industry. We have major rights there.

But when we deal with countries such as China, we have not filed a single WTO case against China, and they're facing major violations.

And then finally, the premature—what I call the premature publication of patents. The issue, it would seem to me, is not to pick up that 10 percent of inventors that are left out of that, but for us to go and renegotiate to take the United States off that 18-month patent rule.

Think about it, what it says. First of all, we've set up the rule, the 18-month rule, because we're unwilling to deal with the pendency issue. We're unwilling to deal—if we were issuing patents at 6 months, there'd be no need for an 18-month rule.

Alexander Graham Bell, for example, got his patent in 3 weeks. It was 600 lawsuits, including 5 challenges at the Supreme Court. This is doable.

But more importantly, what we find is this 18-month rule is a major boon to pirates around the world. The Japanese patent office, for example, sent some of their people to China, visited with various countries. And what they found was rows and rows of computers where the Japanese—I mean the Chinese companies were pulling down the information off the Net about Japanese and English and German and American patents. And they said, "We don't need to research. All we need is this access to the 18-month rule."

And moreover, when the Japanese went back and checked their own computers, they found they were getting 17,000 hits a day from Chinese companies looking into their patents, and they found that South Korea was hitting it 50,000 times a day.

Another thing that happens with the 18-month rule, if an inventor makes a filing for a patent, if it goes up at 18 months and if he's denied or if that inventor is denied a patent, after that 18-month rule the application is filed, he, in effect, loses the right to operate his innovation as a trade secret. It's given away already.

Now about a third of the patent applications every year are rejected. We're losing 60,000 or 70,000 innovations a year that inventors have, where they could use it as a trade secret, re-release it entirely to the world.

As to the question of best mode, the golden covenant that the Constitution provides is an exchange of knowledge for a grant of the exclusive right to use. Best mode is, I think, a necessity.

This country has had some very bad experiences in the past. As we moved into the early part of the century and World War I, Germany had a monopoly on dyes, certain chemicals, painkillers, anal-

getics, aspirin, et cetera. The Germans cheated. The Germans didn't give the best mode of use.

When the Dupont Company, at the direction of the U.S. Government, moved to try to replicate those inventions in a time of crisis, what they discovered is that if you followed the techniques laid out by I.G. Farber and others, you'd kill your chemist. Best mode is very important.

And thank you for your questions, and I am glad to come.

[The prepared statement of Mr. Choate follows:]

#### PREPARED STATEMENT OF PAT CHOATE

Mr. Chairman and Members of the Committee:

Thank you for the invitation to present my thoughts on "Patent Harmonization." I appear as a member of the Advisory Board of the Professional Inventors Alliance—a group of independent inventors that support strong patent protections.

#### THE THREE P'S

The U.S. patent system has three major problems today.

1. *Pendency* rates are far too long, denying the nation new innovations in a timely manner;
2. *Piracy* of U.S. intellectual property rights is not being adequately addressed;
3. *Premature publication* of patent applications at 18-months is (a) enabling the theft of U.S. intellectual properties, (b) denying patent applicants the ability to use their innovations as trade secrets, and (c) encouraging inventors not to file patent applications, thereby diminishing the nation's general knowledge.

Proposals to shift from a first-to-invent to a first-to-file system, to eliminate the "best mode" requirement in a patent application and to expand the publication of patent applications will weaken the U.S. Patent System and discourage American innovation at just the moment both should be strengthened to meet expanding global competition.

#### SIX NATIONAL ECONOMIC TOOLS

The President and Congress have six basic tools to direct the U.S. economy:

1. Fiscal Policy
2. Monetary Policy
3. Exchange Rate Policy
4. Trade Policy
5. Technology Policy
6. Competition Policy (Antitrust)

For more than two centuries, the strongest of those six has been U.S. Technology Policy, the heart of which is the nation's system of intellectual property laws and the rights they create. Those laws and rights, the strongest in the world, have encouraged national innovation and the spread of general knowledge beyond anything achieved by any other country in history.

These intellectual property rights, in whatever form they exist, are ultimately social contracts between the originator of an idea and society. The arithmetic of the exchange is simple: the temporary award of ownership allows the public to benefit from new ideas and encourages the creation of even more innovations.

What varies among nations is the way they balance this quid pro quo—ownership for disclosure—and which interests they favor in their patent policies.

At its heart, the American system of intellectual property protection—whether that protection comes as a patent, copyright, trademark, computer mask, or trade secret—favors the rights of ownership. U.S. law gives inventors and writers the long-term, exclusive right to make, use, or sell their creations and powerful legal means to defend their rights in U.S. courts.

Most other nations, however, still view an originator's discovery as a legacy to society almost from the inception. Thus, those intellectual property systems favor the quick distribution and shared commercialization of new ideas, even if this puts the inventor or writer at a disadvantage.

Think about cameras. In the United States, Kodak violated Polaroid's instant photography patents, lost their case in court and then had to pay Polaroid \$1 billion in damages. In Japan, by contrast, one company develops a killer application, such as technology to stabilize shots, but all other Japanese camera makers soon introduce the same technology. In the U.S., the innovator could use that technology to sweep the market. In Japan, a government-approved and often a government-guided cartel shares the technology among competitors.

The differences of national emphasis—ownership vs. sharing—among the U.S. European, and Japanese intellectual property systems are substantial.

The stated or explicit goal of patent harmonization efforts is to synchronize these divergent patent systems so they generally work alike. In itself, this bringing together of national systems is desirable.

However, there is an unstated, and vital, issue involved: Will patent standards and protections be raised or lowered in the harmonization process? Harmonize up? Or, harmonize down?

That is the choice now before Congress.

#### PARTIES IN CONFLICT

For almost two centuries, Congress has set intellectual property rights by allowing the affected parties to find a compromise. Now that process is impaired, largely because of the changing nature of the parties at interest. Before the 1960s, the battle was between domestic industries and between individual industries and large corporations. With globalization, the conflict is between national systems, which means foreign nations and their corporations versus both small and large entity inventors. As U.S. corporations offshore their R&D and manufacturing, their interests are increasingly aligned with those of foreign-based multinational companies that are trying to weaken U.S. protections for small entity domestic inventors.

*Small versus Large Entities*—The United States Patent and Trademark Office (USPTO) distinguishes between what it terms “small entities” (independent inventors, companies with 500 or fewer employees, not-for-profit organizations and universities) and “large entities” (larger corporations).

Until the last half of the 20th century, the principal patent conflict was between independent inventors and large U.S.-headquartered corporations, reflecting the fact that individual inventors are a natural enemy of the status quo, large corporations and state-owned enterprises.

“Innovation is a hostile act as it threatens the status quo and those who benefit from it,” says inventor Paul Heckel. That threat, Heckel claims, explains the difference between the U.S. patent system and those of Japan and Europe. Those systems were developed to minimize the threats to entrenched interests, while ours was created after our Revolution when the entrenched interests, that is, the British, had been overthrown and those in power had little but the vast future of a nation to develop.

The American experience is that these small entities, particularly independent inventors, can devastate an entrenched interest, almost overnight. Indeed, doing just that, and becoming rich and famous is the dream of most such entrepreneurs. Moreover, it happens repeatedly in America. Small entity invention has a particular American quality, reflecting our culture. Even with all the filings from large U.S. corporations and their counterparts from around the world, small entity inventors still file roughly 45 percent of all U.S. patent applications every year. That happens nowhere else in the world.

Such innovation is the very heart of what Austrian economist Joseph Schumpeter called “creative destruction.” For more than two hundred years, it has been the engine of America's economic growth. It is our principal hope for meeting the global economic challenge we face.

For the small entity inventors, their IP rights are essential. Patents provide them the means to raise capital, make license arrangements and defend themselves against infringers. As surely as night follows the day, other nations will seize upon patent changes to weaken intellectual property rights in the United States and thus weaken those same IP rights abroad.

Moreover, with weakened protections, no U.S. IP holder will be safe, whether small or large. In a world where China, India, and other nations are quickly becoming the world's workshop—manufacturing everything from the simplest to the most advanced technologies—a large and growing number of traditional U.S. corporations are in reality little more than intellectual property holders, who are “non-practicing” their technologies. In this radically different economic environment, the protection of those corporations' intellectual property rights is vital because those rights are what constitute their stockholders' real value.

*Small Entities versus Transnational Entities*—Europe, Japan, China, India and other nations aggressively use their patent systems as a tool of national development. Changes in U.S. patent laws that enable their corporations to get a look at U.S. patent applications before a patent is awarded is to their advantage. So, too, processes that ease their ability to challenge U.S. patents as a means to coerce a license or shorten the duration of a patent through confrontation, or place the validity of a patent into legal limbo is also to their advantage.

Since the early 1990s, one of the principal goals of Japanese and European-financed lobbying in the United States has been to change U.S. patent practices. There is a formidable force. Overall, the Center for Public Integrity reports that foreign governments and corporations now fund almost one-third of all lobbying in Washington, D.C. When the lobbying dollars of the largest U.S.-based corporations and their trade associations is added to the foreign efforts, almost 80 percent of all lobbying dollars come from a coalition of businesses and governments that wish to weaken U.S. patent protections. Their goal, moreover, is fully understandable—in America, an inventor with strong patent protections, a contingency fee law firm, and access to the federal court system is a real economic threat to a patent pirate.

#### HARMONIZING DOWN U.S. PATENT STANDARDS

Not surprisingly, many U.S. corporations have long sought to weaken patent protections for independent inventors. Repeatedly over the past forty years, a succession of Presidents has appointed patent reform commissions dominated by these corporate interests. Their reports repeatedly offer the same solutions—(1) they seek to cut the term of patent protection; (2) they seek to give the world a look at a patent application before the USPTO grants patent protection; (3) they seek to weaken the legal remedies and damage awards to small entity patent holders; and (4) they seek to change the award of an invention from the first-to-invent to the first-to-file a patent application.

In short, these corporate-led commissions have urged Congress to harmonize down—that is, to make the U.S. patent system more like that of Japan and Europe rather than have U.S. patent negotiators try to raise the patent standards of those nations to that of the United States.

Moreover, the temptation of the Executive Branch of the U.S. Government to reduce IP rights is great. The temptation arises out of the creation of TRIPS within the World Trade Organization, which has put IP rights into trade negotiations. In the past, the United States has traded away various U.S. industries to secure global trade agreements—textiles, apparel and steel are the most visible examples.

In the current WTO round, developing nations refused to begin the negotiations unless the United States would agree to compulsory licensing of pharmaceuticals. The USTR capitulated, putting this nation on a slippery slope of IP concessions in exchange for trade rights.

Indeed, we are already along that path. China is a flagrant violator of U.S. IP rights, yet our government refuses to bring a case against China at the WTO for denying U.S. intellectual property owners' rights that are supposedly theirs under China's accession agreement to the WTO. Again, the U.S. is swapping away IP rights for foreign policy and other trade goals.

This "harmonize down" effect comes into sharp relief by reviewing a landmark GAO study—*Intellectual Property Rights—US Companies' Patent Experiences in Japan*, published in the spring of 1993. It provides a baseline comparison of the U.S. and Japanese patent systems, as they existed 13 years ago. The changes since then are dramatic.

In this study, GAO examiners interviewed Japanese patent officials and lawyers, and they surveyed 300 corporations who were top patent holders in Japan. The respondents were top U.S. patent holders in three sectors—chemicals, semiconductors, and biotechnology—and included 90 percent of the U.S. companies that were part of the top 200 U.S. patent holders in 1991. Almost half of these companies had 10,000 employees or more, 32 percent had between 501 and 10,000, and 19 percent had 500 or fewer. More than 90 percent of these respondents had also filed patent applications in Japan during the past five years, two-thirds held ten or more Japanese patents, and all were experienced international businesses. The majority of these respondents were also large enterprises, with 60 percent reporting sales of more than \$1 billion annually.

While the 300 responding companies had all the resources needed to hire the best talent and do whatever the Japanese required foreign businesses to do in Japan, two-thirds reported significant problems dealing with Japan's patent system. By contrast, only 25 percent said they had similar patent problems in Europe and 17 percent in the United States.

In stunning detail, the GAO study also revealed that, unlike the United States, which administered its patent system in a country-neutral manner, Japan's patent system then was at once a defensive, offensive, and a strategic tool of national development. It was being used to (1) keep foreign goods out of Japan, (2) protect proprietary Japanese technology, (3) examine the inner workings of the best foreign technology and (4) get foreign patents under advantageous conditions.

The GAO concluded that the differences in patent policy between the U.S., Japan and Europe were as follows:

- The United States awarded patents to the person who is the first-to-invent. Europe and Japan awarded patents to the first-to-file an application.
- The United States provided seventeen years of protection from the date it issues a patent, no matter how many years the USPTO took to process the application. Europe and Japan provided protection that ended twenty years after the filing date, despite how much time they consumed in the review process.
- United States patent applications were secret until the government granted a patent. All other nations published patent applications eighteen months after an applicant files.
- The United States gave inventors a grace period of one year in which to file an application after they have shown their invention to the public and imposed no restrictions on the ways originators may reveal their inventions. Europe and Japan gave inventors a grace period of six months for disclosure and limited the types of disclosures they could make without losing their right to a patent.
- The United States and Europe excluded third parties from the patent review process. The Japanese Patent Office allowed third parties, including rival companies, to participate in their patent reviews.
- The United States did not allow third party opposition during the patent review process. Japan allowed third parties to oppose a patent application even before they grant an award. Europe allowed third party opposition but only after they grant a patent.
- The United States Patent Office automatically examined every patent application filed. Europe allowed patent applicants to defer examination for up to six months. Japan allowed patent applicants to defer examination for up to seven years.
- The United States accepted patent applications in all languages. Europe accepted applications in the languages of nation party to the European Patent Convention. Japan accepted the patent applications in Japanese.
- The United States and Europe processed patent applications rapidly, generally in nineteen months or less. Japan processed patent applications slowly, generally in six to seven years.
- The United States' and Europe's scope of patent protection is wide, giving the inventor exclusive rights within a broad boundary of claims. Japan construed the scope of its patent protection as narrowly as possible.
- The United States and European legal systems eased the private enforcement of patent rights. Japan has discouraged private action.

Most of the 300 corporate respondents to the GAO survey answered that they were unable to protect their intellectual property in Japan, and many also acknowledged that they were forced to enter cross-licensing and partnership deals with Japanese rivals that they would never have even considered in Europe or the United States.

If these large transnational corporations were unable to cope in Japan, then most individual inventors and small firms faced an almost impossible task.

In the intervening years, Japan has made some changes in its patent system. It has established a tribunal to hear patent cases, takes applications in English, hired more examiners and lowered its pendency rate. Yet, its basic system remains unchanged. It uses the first-to-file approach, limits patent terms to 20 years, pre-publishes applications and permits third party opposition.

As this list reveals, the direction of U.S. patent law changes over the intervening years has been to *change the U.S. patent system so that it is more like Japan's*.

Moreover, the USPTO is taking (May 3, 2006 deadline) public comment on a proposed rule on the practice of continuation applications that will further make the U.S. system like Japan's—a rule that will cut the number of a patent claims in an application.

As you know, pendency is an ongoing and increasing problem for the PTO and frankly for American competitiveness. However, any change in PTO rules that limits the number of continuations and the number of claims will not affect pendency. But, it will create great suffering for small entity inventors—universities, biotechnology firms, emerging technology companies, small businesses and independent inventors. Currently, they can file a patent application and modify it as one's research progresses. Application and revision costs are borne by the applicant progressively and timely public disclosure occurs.

The proposed rules restrict the patent applicant to 10 claims and to 1 continuation absent special circumstances. The PTO thinks that this will reduce examiner workload and relieve pendency, though it has yet to demonstrate this. Instead, the rules create new, amorphous requirements that the patent applicant must meet. Essentially the rules mean that the patent applicant must perform the examination process themselves all in advance. This radical change represents a first step toward converting the PTO into a registration system.

This rule change is so significant it is something for Congress and not for the PTO to decide. I urge this Committee to review those proposed changes and comments in hearings.

#### THREE HARMONIZATION ISSUES

*First-to-Invent Versus First-to-File*—For more than two centuries, the United States has awarded a patent to the first person to invent the creation. All other nations award the patent to the first person to file a patent. The Governments of Japan and Europe support U.S. adoption of a first-to-file system. Several Presidential and academic study commissions also favor a first-to-invent approach. In the 1993 GAO survey, three-quarters of the companies with 10,000 employees or more favored a first-to-file system, as did about half the companies with 501 to 10,000 employees.

In that survey, of course, a quarter of the large corporations and about half of the mid-sized companies favored a continuance of the first-to-invent approach. I am unaware of any survey of small entity inventors on this issue. Various independent inventor groups, however, advocate leaving the first-to-invent system in place, arguing that it is functioning well.

In a recent study of whether small or large entities are advantaged or disadvantaged by the first-to-invent approach, former Commissioner of Patents and Trademarks Gerald J. Mossinghoff did a statistical analysis of what happens when two parties claim to have invented something at nearly the same time, a process called interference cases or two-party decisions. If there were problems in the first-to-invent system, a large number of such cases would exist.

Remarkably, in the 22-year period 1983–2004, Mossinghoff found there were only 3,253 two-party decisions, a period when the USPTO received 4.5 million applications and granted more than 2.4 million patents. Thus, there were on average only such 155 such cases per year, or as Mossinghoff pointed out, fewer than one in one thousand applications filed.

Mossinghoff also found that the number of small entities advantaged in that 22-year period by the interference process was 286 and the number disadvantaged was almost the same (289), a strong statistical suggestion that the USPTO was ably managing the process.

Mossinghoff's data provides a strong argument for not changing from a first-to-invent to a first-to-file patent system. Specifically, the supposed disadvantage of the present approach is that it leads to confusion and conflicts. Yet, as Mossinghoff's data reveals, the number of interference cases in the 22 years analyzed was administratively trivial.

His data also reveals that small entities were involved in only 17.6 percent of these two-party cases, although they generate 45 percent of all patent applications. The overwhelming majority of those interference cases (82.4 percent) were between large entities fully capable of financing their advocacy.

Mossinghoff's data reveals that the number of small entity inventors affected by interferences occurs only with one of every 7,800 applications. This is so statistically insignificant as to be irrelevant. One of 7,800 is not a problem.

The point is that our present system is not adversely affecting large or small entity inventors. Then, why change it? Why go to all the trouble, all the costs of changing to something else, when the benefits are so illusory and slight? If there is some benefit other than doing like other nations do, advocates of that change should be forthcoming as to what that is.

The other question raised in Mossinghoff's paper is about the ability of those few, those one of 7,800, inventors to finance the legal costs of a two-party case. He found

that 575 small entity inventors took their cases to conclusion, which also strongly suggests that legal costs were not a barrier, even for those few.

The question of legal costs is related to a broader argument made for altering the U.S. Patent System, namely that the U.S. is in a “patent litigation” emergency—that is, a flood of lawsuits with little or no merit is threatening the innovation process.

I examined that issue in a recent working paper published by the U.S.-China Economic and Security Review Commission (*A Great Wall of Patents*, October 2005). I concluded from publicly available data that the U.S. does not have a patent litigation crisis. Indeed, the data makes clear that the threat of lawsuits for most inventors is actually diminishing.

The real litigation threat is to a handful of large corporations whose business models rely on the aggressive, unapproved and uncompensated use of the patented works of others. The owners of that intellectual property are suing these large companies and winning large awards. In appeal, the courts are upholding these awards as valid. Now, a handful of these large entity patent holders have banded together and are trying to achieve through legislation what they cannot get in the courts—easier access to the IP of others, at a lesser cost and with fewer penalties.

Federal judicial caseload statistics for patent lawsuits and USPTO data on patent applications and patents issued reveal:

- An inventor is less likely to be involved in a patent suit today than in the past. The number of patent lawsuits filed per the number of patent applications filed has been on a downward slope since 1990.
- Likewise, the number of patent lawsuits filed per the number of patents granted by the USPTO has also declined even greater—almost 13 percent between 1988 and 2004.
- Only 5/10,000 of one percent of patents issued are challenged in a patent trial.<sup>1</sup>
- In 2004, more than 28 percent of patent lawsuits settled with no court action required.<sup>2</sup>
- In 2004, more than 53 percent of patent lawsuits settled before pretrial.<sup>3</sup>
- In 2004, more than 14 percent of patent lawsuits settled during or after pretrial.<sup>4</sup>
- In 2004, only 96 patent cases went to trial, which represents only 3.5 percent of all patent cases filed that year.<sup>5</sup>

Put into context, the number of patent lawsuits that went to trial during the period 2001 to 2004 rose from 76 cases to 96.

Fewer than 100 patent trials a year is not a patent litigation crisis—particularly in a nation that issues almost 200,000 patents annually and where litigants settle almost all patent lawsuits before trial.

Although the current first-to-invent system is working very well, imagine what is likely to happen if Congress were to change it to the first-to-file approach.

The large corporations could standardize their global patent operations and perhaps get some savings out the efficiencies. They are well accustomed to working in first-to-file systems around the world.

For the small entities, the shift would be chaotic. They are not accustomed to the first-to-file approach. Their experiences and knowledge of the patent system are grounded in the first-to-invent system. Hundreds of thousands of inventors, academics, lawyers and paralegals would be forced to learn a new system—a costly and disruptive process at best for them, and for the USPTO.

The first worry on the part of many inventors and academics would be whether someone would steal their innovations and rush to the USPTO to file an application—a legitimate concern in today’s world of unchecked piracy. Indeed, Chinese inventors are now taking patent applications posted on the Net and using that information to be the first-to-file in China.

The fear of patent piracy, here and abroad, would motivate countless inventors to rush to file. Inevitably, the result would be a flood of premature patent applications. In turn, the influx of such applications will greatly burden the USPTO at a time when patent pendency is already rising.

<sup>1</sup> Calculated from data contained in *Federal Judicial Caseload Statistics, 2004*, Table C-4 and *Performance and Accountability Report: fiscal year 2004*, Table 1, p. 116.

<sup>2</sup> Calculated from data contained in *Federal Judicial Caseload Statistics, 2004*, Table C-4.

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*



And what are the principal gains from incurring these costs and dealing with the resulting chaos, other than pleasing patent bureaucrats in other countries and allowing transnational corporations to save a few patent-processing fees? Other than being like other nations, what is the advantage to the United States and small entity inventors for making such a shift?

In short, the advocates of this change have failed to prove that the marginal benefits of this shift will equal the marginal costs and inventor confusion. This is significant, for we are at a moment when larger patent issues loom, such as unchecked patent piracy by nations such as China, the growing technological challenge from abroad and rising pendency rates at home. Our limited USPTO resources should be devoted to those issues, rather than to a change that would create unproductive chaos.

Imagine the response if we were to ask England and Japan to change from a right to a left hand drive system for their automobiles so they could be like us and thus make life easier for our automakers. Congress should view their demands for patent harmonization in a similar way—deciding what is in our inventor’s and our country’s best interests.

*Best Mode*—Should inventors be required to include in their patent applications the “best mode” to replicate and use their creations?

I think the answer is yes—absolutely. The golden covenant of a patent is simple—exclusive use in exchange for making public new knowledge. Otherwise, the patent grantee gains the benefits of government-licensed exclusivity, while denying the public the full knowledge to which they are entitled.

In the early part of the 20th century, I.G. Farben, the giant German chemical cartel, was granted hundreds of chemical patents in the United States, giving them exclusive use over their creations. However, Farben cheated. When DuPont and other chemical makers tried to replicate those processes during World War I, they discovered that vital elements were missing. Indeed, Pierre DuPont, who lost more than \$100 million of 1917 dollars trying to replicate those chemicals, claimed that if DuPont chemists had followed the Farben patents, they would have been killed.

The point is the United States should not give exclusive rights to inventors unless they share with the public the best and true mode. Expanding public knowledge is one of the patent system’s most important functions.

*Pre-Publication of Patent Applications at 18-Months From Filing*—In 1999, the United States enacted harmonization legislation that required the USPTO to reveal to the world vital information from all patent applications that have been on file for 18-months. An exception was made for those inventors who seek a patent that is limited to the United States. Today, approximately 10 percent of patent applications fit that criteria and are not published on the Internet at 18-months if not granted.

The 18-month rule may be meaningless for large entity inventors. It devastates small entity inventors—giving competitors and pirates the world over vital details about their creations before patent protections are granted.

The 18-month rule is driving small entity inventors away from the patent process, denying the nation substantial knowledge. In the past, an inventor could take a failed application and apply the knowledge as a trade secret. With 18-month publication and 30 months plus patent pendency, the secret is spilled to the world. The USPTO rejects about one-third of all patent applications. This means that approximately 60,000 to 70,000 potential U.S. trade secrets will be made available to U.S. competitors and pirates worldwide annually.

Are foreign competitors stealing ideas and technologies from what I label the premature publication of patent applications? Consider this: In 2004, the director of Japan’s External Trade Organization’s Intellectual Property Rights Office in Beijing visited a leading Chinese company. The head of that corporation’s intellectual property division showed him a room with several dozen computers whose exclusive purpose was to search the patent applications put up on the Internet by the USPTO and its equivalent in Japan and Europe. The Chinese executive explained it was easier and far less expensive to pull information from foreign patent applications than to do their own research.

When informed of this, the Japanese Patent Office began monitoring the number of hits its patent application files on the Net were getting. They counted 17,000 hits per day from China and 55,000 per day from South Korea.

Likewise, the very system that is supposed to protect America’s most precious technological secrets is revealing them prematurely to the rest of the world. When I explain the 18-month publication rule to business executives, they are dumbfounded that such a thing could be possible.

I conclude that the real issue is not whether to include the 10 percent of patents under the 18-month rule, but how to stop pre-publication altogether. I cannot imag-

ine any benefits to U.S. inventors or the nation from the present approach, while the liabilities are obvious.

#### CONCLUSION

Harmonization of the world's patent systems is a desirable goal for the United States. The vital question in that harmonization process is whether the United States should lower its standards to those of other nations or whether we should work to raise their standards to ours.

Put another way, what is there in the patent systems of Germany, France, Italy, England, Japan, Brazil, India and South Korea that is so superior to that of the U.S. that Congress should change two centuries of success to follow their lead and be like them? The argument that all other nations do something—that the U.S. should join a herd simply because there is a herd—is insufficient reason to change U.S. patent laws that have worked so well for this nation for so long.

As I describe in this testimony, the U.S. has followed the lead of other nations in recent years and lowered its vital patent standards in the name of harmonization. Those changes, and those now before the Congress, weaken U.S. IP protections. Our independent inventors are greatly disadvantaged by those changes—shorter effective patent terms and the premature publication of patent applications particularly.

It would be very useful to have these harmonization issues rethought in a forum where small entity inventors—-independent inventors, small companies, non-profit organizations and academic inventors—are an integral part of the process. Such an exchange would be congruent with our long tradition of bringing a balanced compromise on patent policy to the Congress.

Thank you for allowing me to share my perspectives with you.

Mr. SMITH. Thank you, Mr. Choate.

To me, one of the primary purposes of today's hearing is to try to better answer the question of why independent inventors sometimes object to our efforts to try to implement a first inventor to file, the harmonization that you all have been talking about. And my questions are going to be focused primarily on trying to answer that particular question.

Mr. Dickinson, for example, you mentioned in your testimony that the very individuals who, in recent tradition, have been most concerned about this change, the individual or small inventors, have actually been disadvantaged by our current system.

In just a minute, I'm going to ask you all to respond to a couple of Mr. Choate's points. But I'd like for you to go into a little bit more detail, Mr. Dickinson and Mr. Armitage. You mentioned harmonization, bringing in objectivity and transparency. Mr. Mueller, you actually said that a patent system that requires application for the same invention to be researched and re-examined in each country where patent protection is sought makes little sense in today's global marketplace, and that harmonization will reduce the cost and complexity of obtaining patent protection around the world.

If you can go into a little bit more detail, elaborate a little bit more as to why you think independent inventors are actually benefited by harmonization? And maybe you can speculate—I'm going to give Mr. Choate equal time in a minute—maybe you can speculate as to why independent inventors seem to be opposed to the idea of harmonization?

And Mr. Choate, just a quick comment, your direction. You said you supported the concept of harmonization in some areas, but you had concerns about this particular proposal. I wonder a little bit if conservatives like you and me sometimes just don't resist change regardless.

And I'm going to come back to that theory in just a minute. But Mr. Dickinson, if you will begin?

Mr. DICKINSON. Thank you, Mr. Chairman.

A couple of questions there. Let me see if I can respond. And I have pretty good contact with the independent inventors, talk with them a lot about these issues, and particularly this issue of first to file versus first to invent.

Interestingly, I think the record shows that some 30 years ago, when hearings were held on this topic, the roles were actually reversed. The independent inventors actually supported moving to first to file, while the largest entities in some cases resisted it. Now we seem to have changed sides a little bit. I don't think the arguments have really changed, however.

The challenge with first to file, and I think the reason why independent inventors—and they probably can speak for themselves—but I think the reason why they tend to generally oppose it is that they're worried on a couple of things.

One, that they will lose the so-called race to the Patent and Trademark Office. And that, on its face, is not such—there's maybe some validity to that on its face. In reality, large companies like mine, we have fairly—we try to make them very streamlined, but we have fairly cumbersome processes for approval. We have fairly elaborate mechanisms for taking the inventions from the bench, going through the invention disclosure process, and on up to an application.

So, for us, we're a little inhibited in that race. Independent inventors, on the other hand—particularly with the development of the Internet, the opportunity now to electronically file patent applications, the ability to do research and to find legal resources, patent legal resources on the Internet and do the searching on the Internet—they are able to make those decisions a lot quicker.

Mr. SMITH. Let me interrupt you because I want to—Mr. Choate made a point in his written testimony that I'm not sure he mentioned it in his oral testimony that maybe we're trying to address a problem that doesn't really exist.

He makes the point that if there were problems in the first to invent system, a large number of interference cases would be filed, and they are not. So would you address that?

Mr. DICKINSON. That's an interesting question. I think one reason why there aren't that large number of interferences is because of circumstances that give rise to the interference and, by extension, the concern that independent inventors have, the fact that two inventors coming to the same invention in roughly the same period of time only happens in a very few instances.

I think we declare each year something on the order of, off the top of my head, 400 interferences out of 400,000 patent applications that might be filed. So that process of determining who the first inventor is only occurs in a very minor subset. That dispute only occurs in that little—in that little—

Mr. SMITH. Mr. Dickinson, let me sneak in another question here to Mr. Armitage and Mr. Mueller. Mr. Choate also makes the point somewhat similar to the one I just repeated. Our present system is not adversely affecting large or small inventors, then why change it? Why go to all this trouble? Mr. Armitage?

Mr. ARMITAGE. Can I first go back and maybe add a little perspective on your original question—

Mr. SMITH. Sure.

Mr. ARMITAGE [continuing]. About why sometimes independent inventors think of the first to file system as a bad deal for them.

In some of the discussions I've had over several decades, first of all, they think it's a true first to file system—in other words, whoever files first is going to get the patent—rather than a system that truly protects the inventor who files first. And if you're not the inventor and just the first filer, you're not entitled to a patent.

In your bill, in fact, there's a section—a new section on inventors rights contests. If someone who files first and they're not the inventor, they don't get a patent. The first inventor to file gets the patent.

Second thing, and I think it's very important given what Mr. Choate said, sometimes when first to file is used, people think they're getting the European patent system with no grace period, where if an applicant files two patent applications on the same subject matter or similar subject matter, one application can collide with the other and destroy the right to fully patent the invention.

They also think they're getting the European rule on absolute novelty, where any divulgation of the invention, even if it isn't publicly accessible, can be prior art. And in fact, in the first inventor to file proposal that's in H.R. 2795, none of those are true. It's a very inventor-focused system.

Mr. SMITH. Thank you, Mr. Armitage.

I'm going to come back and ask some more questions in just a few minutes. And Mr. Choate, we'll be sure and give you equal time.

For now, my time is up, and the gentleman from California, Mr. Berman, is recognized for his questions.

Mr. BERMAN. Thank you very much, Mr. Chairman.

I apologize for not being here during most of the testimony. I sort of came in the middle of Mr. Choate's testimony, where mostly you were talking about the—the—your dislike. And I think I was aware of that because it was controversial at the time of the 18-month publication.

But I am curious that from the testimony, both you and Mr. Dickinson cite the study by Commissioner Mossinghoff for opposite propositions. Dickinson says it supports the change to first to file. Mr. Choate says it shows the advantages of maintaining the current system.

Can you each respond to the other one's arguments?

Mr. DICKINSON. I think the principal take-away from Commissioner Mossinghoff's study was that the purported advantage to small inventors by the current system doesn't really exist and that when small inventors get into the dispute resolution mechanism for that contest, the interference, that they are disproportionately, actually negatively affected. And that's irrespective of the fact that it costs probably multiple hundreds of thousands of dollars to be able to even try to take advantage of that mechanism.

So that in the first instance, because of the cost, small inventors might not even be able to prove that they were the first inventor. And secondly, if they are able to do that, if they are as we say the "junior party"—namely they are the second filer, but are seeking to prove they were the first inventor—the junior party routinely

loses. Loses some 80 percent of the time because of the nature of the rules, the nature of the interference practice, and because the first filer is very often able to demonstrate they were also the first inventor.

Mr. BERMAN. Mr. Choate?

Mr. CHOATE. First of all, in the Mossinghoff study, it found that the small entity inventors were advantaged 286 times, and they were disadvantaged 289 times. That's 3 case difference. Now what that says is it's a wash at 289 to 286. Moreover, more dramatically, it says there's 576 such cases over a 22-year period when you were dealing with something like 4.5 million patent applications.

When you run those kinds of numbers, 500 cases—500 plus cases out of 4.5 million, and it splits, it says, first of all, the interference process is working fairly. Secondly, it says with 500 out of 4.5 million, it is a trivial, it is statistically totally insignificant in the management or operation of a system—

Mr. BERMAN. But the figure is the figure of the number of patents filed.

Mr. CHOATE. That's right.

Mr. BERMAN. Not the number of places where two people—

Mr. CHOATE. No, no.

Mr. BERMAN [continuing]. Claim to have invented the same thing.

Mr. CHOATE. The point I'm making is when you have a system where you're filing 4.5 million patents and you only have—you have less than 600 instances over 22 years where there's a contest, it means that that is so small, it means the system works so well that you only have 600 cases out of 4.5 million. It's a tribute to the system.

Mr. BERMAN. That's the system with the 18-month publication?

Mr. CHOATE. No. It's the system with the way that we file patents now, a first to file system. I have other arguments against the 18-month rule.

But the current system, from the Mossinghoff data, if you had this kind of efficiency in any business, everyone would be coming to study how you did it.

Mr. DICKINSON. Mr. Berman, just a quick, brief follow-up. I think the data that Mr. Choate references actually proves the other point.

I mean, we have so few of these contests, the need to determine who the first inventor is versus the first to file is so infrequent and so costly that there is very little harm in moving the system to first inventor to file to achieve the bigger goal of getting global harmonization.

Mr. BERMAN. And why couldn't I draw the other inference it's very little reason to change it?

Mr. ARMITAGE. Could I jump in here? This morning on NPR, there was a report that a new virus, a new vaccine against the Marburg virus had been tested in monkeys and appears to be very effective.

Now it's stupid for researchers to work on the Marburg virus because it kills very few people, right? Wrong. It's a horrible death if you happen to have the Marburg virus, and also the fear in any community when that virus infects even one person is horrific.

Going back to what Mr. Mueller said, that's exactly the problem that faces the patent system. If you're a small inventor in an interference, it can be death. And not only that, the way the first to invent system works, you never know you're the first inventor because you never know when someone's secret invention date will come out of hiding, and they get your patent. Either take it away and give someone else a patent and exclude you from marketing the products you've developed, or simply invalidate your patent.

So it's really the fear that it injects, the uncertainty it injects into every patent in the entire system that makes those small number of deaths intolerable.

Mr. SMITH. Thank you, Mr. Berman.

The gentleman from California, Mr. Schiff?

Mr. SCHIFF. I just wanted to follow up on one issue related to the first to file, first to invent, and ask you to speak for some people that are not at the table today. The university community I know has raised some concerns about moving to a first to file system. And I know within the university community, in fact, within the individual universities, there are difference of opinion.

But give us your assessment, pro and con, of what this change will mean to universities. I know they're concerned, among other things, with not being able to compete with the private sector in the race to file and the different nature of the academic process at a university. If you could share your thoughts on those issues?

Mr. MUELLER. I'll speak from my perspective. I went through getting my master's in electrical engineering and doing a paper and developing research on how to do film scanning. And came up with some novel ideas and some new techniques.

From my perspective, when I look at this strategy, I believe there's an opportunity to foster under a first to file system. If that was in place, somebody would have tapped me and said, "Gary, that's great. Let's write it up, and let's get it into the process." And why can't that be part of the educational system, especially with all of the research that's going on there now?

And as a small company, we're always looking at research activities and working with graduate students that have some great ideas that may apply to ours. And I would think that in a first to file system, if encouraged and trained to the small entrepreneurial community that includes strong element of educational institutions, that that would be a great place to capture those ideas and credit to first person that invented it, have them file it, and then attract businesses like myself to say, "Well, gee, I saw this patent application. You've done some research on this. I've now got a job for you."

And so, I look at it from that perspective and say the first to file, with the discipline of understanding that it's there and the encouragement to the educational institutions would be a great plus.

Mr. SCHIFF. So you think that the universities can easily adapt if they educate their researchers, Ph.D. candidates to—

Mr. MUELLER. They should be doing that. I mean, I was recently up at Penn State because my son's looking at going there, and I actually ran into a lady who was actually teaching a minor in entrepreneurship as part of the engineering department.

And I think that if you bring the educational environment and the research that goes on in the educational environment together

with this concept of “great idea, great graduate paper. New intellectual property has been invented here. Let’s get you into the system.” I think that would be a tremendous plus for the American educational system as well as the entrepreneurial environment in the U.S.

Mr. SCHIFF. If you could give me, I don’t know if you wanted to add on also, but I’m curious, too, about in the effort to find consensus on this, are we missing the bigger problem at the patent office in terms of the delay and the backlog? Are we going after the low-hanging fruit rather than the bigger problem?

Mr. DICKINSON. Speaking to the latter maybe, as a former director, I think that a number of the challenges and problems of the PTO can be addressed by some of the reforms we’re talking about.

But as I mentioned earlier, I think the biggest and best way to do that is to make sure that the PTO has the resources that it needs. And then when it gets those resources, that it deploys them effectively and efficiently. I think one of the—

Mr. SCHIFF. On that second point?

Mr. DICKINSON. Yes.

Mr. SCHIFF. Which do you think is the bigger problem, a lack of resources or lack of effectively utilizing the resources they have?

Mr. DICKINSON. Fortunately, because of the work of this Congress and several previous Congresses and the Administration, full funding has come in the last several years on an annualized basis to the PTO. So the resources are moving to be in place.

The next thing we’ll have to see is whether they can be deployed in ways which try to ameliorate some of the problems. I was very fortunate that, at several points, I was able to get the resources and hiring necessary. I think in 3 years running, I hired 900 examiners each of those years, and pendency started to come down. It literally does.

So while we like to say you can’t buy your way out of the problem, you can buy your way out of a big chunk of the problem by hiring the folks who do the professional work.

And then, candidly, one important point. I think you need to give the examiners more time. I think no single deployment of those resources—this is a personal opinion—better serves the examiners’ cause and better serves our causes as applicants than to get more time for examination, both in terms of quality and, I think by extension a little bit, pendency.

Mr. SCHIFF. Yes, sir.

Mr. CHOATE. To the question of the universities and the small inventors, we’ve used the system that—for 200 plus years. And our whole administrative structure is built around a first to invent. All of our forms, all of our people, all of our knowledge, all of our lawyers, our paralegals, the whole system is set up to operate in the way that it does, and it operates very well.

If we administratively change this system, the first thing that you’re going to have from small inventors and academics and small businesses is that fear is going to be acted upon that others are going to rush. And so, what you’re going to see, I think, is a flush of premature applications going to the patent office. Applications that haven’t been thought out or done in the way that they should

be, which, in turn, will exacerbate our problem with pendency upon the backlog.

I mean, the question I think that should be paramount here is do the marginal—what are the marginal benefits of making this radical change in our country against what are the marginal costs of undertaking that?

I think the costs are going to be far more enormous than the benefits that are going to be laid out. I think where the attention should go, rather than taking a patent system and taking our patent people and focusing them into creating and administering this new system, it should be to give them the resources that they need and go after that pendency rate.

For the Congress to set some Apollo moon shot objective to say that in 3 years, you want that pendency rate down to 18 months, and a year after that, 12 months, and a year after that, in 6 months. As Mr. Mueller said and as I think the history of the patent system says, if we can move those patents through there, we can get those innovations online, and that's what's in the best national interest.

Mr. SMITH. Thank you, Mr. Schiff.

Do you want to respond real quickly, Mr. Armitage?

Mr. ARMITAGE. Just one comment. In terms of the kind of surgery to the patent system first inventor to file is, you can think of it as an appendectomy. Okay, something gets taken out that had no function anyway.

Literally, what you're doing and every time there is a contest over who should get a patent is first determine who filed first. You can't have a patent interference unless you know who filed first. And then in those rare cases someone has proofs of invention to prove they invented first, that's the appendix that gets cut out.

So, in other words, there isn't any infrastructure that needs to be rebuilt in a first inventor to file. There is just this piece of the patent system that has enormous cost and uncertainty that gets removed. And indeed, I think we demonstrated with data on how much interferences cost, how long they take, that this is a seriously inflamed appendix.

Mr. DICKINSON. Quickly—

Mr. SMITH. Yes, Mr. Dickinson?

Mr. DICKINSON [continuing]. With regard to the university community and a small addition to that, too.

International harmonization often pairs a grace period with first to file. We like to not try to link them, but they are, for good or bad, inextricably linked. Europe and other major developed countries don't have a grace period. That's particularly disadvantageous to the university community, where publication is the norm.

So you're constantly worrying about whether an early publication is going to defeat the absolute novelty in a country in Europe, which does not have a grace period.

If we were able to get the international harmonization, and that would—I think it requires a pairing of first inventor to file and grace period—the university community would actually be better served, I think.

Mr. SMITH. Thank you, Mr. Schiff.



Let me go back to that question, Mr. Mueller, with you, and I appreciated your response to Mr. Schiff's question about the impact on universities.

A university president with whom I spoke recently who is an expert on patent reform said basically what you did, which is, yes, there would be some initial, you know, inconvenience., but they could adjust, and they could adapt. And if you took the long view, it would be better for everybody involved.

And Mr. Choate, that gets back to the direction I was going with you and which is I just wonder if there is just sort of a resistance to change regardless of or irrespective of whether there is a great deal of harm or a great deal of benefits?

And I'm going to quote you, part of your written statement—  
Mr. CHOATE. Okay.

Mr. SMITH [continuing]. Which is a little bit different than what you just said a minute ago. You were talking about the cost far outweighing the benefits.

In your written statement, you said that all the cost of changing to something else when the benefits are so illusory and slight. And I wonder if that wasn't a quote, a slight admission of a slight benefit as a result of harmonization?

And to me, the benefits are real and not imagined, not illusory. But even your own statement says they may be slight. But that gets back to my point. Do you just oppose harmonization just because it is a change, and it's a little bit of an unknown future?

Mr. CHOATE. Well, two things. As with everything, there are benefits to—there would be benefits to having everything the same. It would cut some of the administrative costs for those corporations, obviously, that are engaged internationally. It might speed time, and certainly I acknowledge that in my testimony.

And as far as defending the status quo, that's a very unusual—I find myself in a very unusual position doing that. I don't usually defend the status quo. But in this particular case, I think it merits defending.

I think the existing system, though we might like it to be somewhat different, that the cost of changing it and the chaos of changing it would be great. And—

Mr. SMITH. Let me ask some of the other witnesses to respond. You made the point a while ago you thought there might be a rush to file if we changed the system. I don't know whether that would occur or not. But if it did, it would sort of wash by and then we'd be back, left with a better system perhaps.

But Mr. Dickinson, Mr. Armitage, Mr. Mueller, do you want to respond to some of the points we've been discussing?

Mr. ARMITAGE. Yes, I think the question I would have is rush to file by whom?

Forty some percent of our patent system is foreign inventors who come to the U.S. patent office. They already file based on a first inventor to file principle. You have another, maybe quarter of the patent system that's large entity, domestic-based inventors. They're already operating under a first inventor to file system to the extent they file globally, and most do.

And then you have independent inventors, small businesses, and universities that, if they're getting any kind of good legal advice,

know the imperative to file applications promptly once they're able to make a complete disclosure of the invention. And there are a couple of reasons.

One, technology moves quickly. Prior art is published. Your invention may be unpatentable if you wait to file. And of course, if you're waiting to file in the hope of winning a patent interference, good luck.

If you're a small entity inventor, the costs and delays and the lost opportunities of not having the presumption of being the first inventor because you were the first filer leaves you with very little prospect of winning a patent interference.

So if there are a few inventors who, as a result of this, get better legal advice and file their applications in a little more timely manner, that's a big plus for them and for the patent system.

Mr. SMITH. Thank you, Mr. Armitage.

Mr. Choate, one other question for you. Then I'll give Mr. Mueller a chance to respond.

Why wouldn't it be an advantage to the independent inventor as a small businessman, business owner, to have harmonization where their patents would be better protected in other countries? If they were dreaming big dreams and expected their patents to be used across the world, why wouldn't they benefit from harmonization?

Mr. CHOATE. Well, having their patents defended in other countries is, as we have learned, is really not a function of designing better patent laws. It's a function of the willingness of the U.S. trade representative to insist that American inventors' rights be respected and that treaties be enforced.

Mr. SMITH. Yes. Which we know is difficult.

Mr. CHOATE. Which we know is difficult. So, in that circumstance, the best option for the small inventor is to say who may or may not get their rights enforced overseas is to ensure that a system that works is continued. They're comfortable. They're comfortable with this system.

Mr. SMITH. Thank you, Mr. Choate.

Mr. Mueller, you had a comment a while ago?

Mr. MUELLER. Yes, I just wanted to respond to the comments that maybe there's going to be a rush to the patent office. And I'm sitting here saying, well, guess what? As a small business person, I'm not rushing unless I think I have something that's really worth it because I'm still facing the cost of the whole process to do this, and I've got other uses for those funds.

So I think that's going to be a significant mitigating factor. And then when I go back and think about the educational institutions, how many grad students I know that have deep pockets that can do that as well?

So—and they're the ones that are actually, when they're doing their graduate paper and doing the research, they're doing a plethora of studies and analysis and looking at what everybody else has published and what everybody else has done. So they're doing their homework.

And if they think that they've got something they can go to the patent office with, it's probably worth the time and an effort to pursue it.

Mr. SMITH. Thank you, Mr. Muller.

Let me see if other Members have questions. The gentleman from California, Mr. Berman?

Mr. BERMAN. Well, thank you, Mr. Chairman.

I note, Mr. Armitage, that you chose not to confine yourself to the issue of first to file and decided to comment on other aspects of patent reform. So I'd like to just pursue that with you a little bit.

You criticized the second window provision of our bill, a provision that was once in an earlier draft, a bill that was circulated by the Subcommittee. I'm not particularly wedded to the second—I mean, one window, two windows, whatever. It's finding a way that we can address the problem of the quality of patents that have already issued.

And having one window right after the patent is issued I don't think is adequate to dealing with that. I mean, we see patents that are being litigated now that were issued 6 years ago and 5 years ago. You mentioned the coalition support for reform that permits the public to see post issuance revocation of any patent at any time, which is what I think. But are you referring to the current *inter parte* / *ex parte* re-exam?

I know that you know the limitations of that process, and how do we avoid—how do we try to provide a useful, effective alternative to costly litigation that goes on and on at tremendous expense to both sides? That's what we were trying to do with the second window, to have something when the person knows that they're being charged with infringing conduct.

Mr. ARMITAGE. You raise a good question. The coalition, in its September 1 text that will be part of the record of this hearing, actually proposed that post issuance revocation of all patents at any time during the term of the patent be available either through the new post grant opposition procedure, which was designed to have a 9-month window immediately after the patent granted, or by expanding *inter parte* re-exam in several important ways.

First of all, *inter parte* re-exam today is not open to all patents. It would be. Second, *inter parte* re-exam today can't be effectively used because of the estoppel against later going into court and really having the opportunity to fully litigate the patent when you have full discovery available. That would go away.

Mr. BERMAN. What would go away?

Mr. ARMITAGE. The draconian part of the estoppel principle that basically makes it unusable. So what—

Mr. BERMAN. Oh, I thought you said—

Mr. ARMITAGE. Would go away under, frankly, 2795 as well as the coalition text.

Mr. BERMAN. But—

Mr. ARMITAGE. So we would be left with then, at any time during the life of the patent, the ability to raise any new question of patentability based on a patent or a printed publication.

Mr. BERMAN. But without discovery?

Mr. ARMITAGE. Without discovery. And therein, I think, lies the rub. Because even in a post grant opposition, there is going to be very limited discovery available. And indeed, for certain kinds of prior art, such as unpublished prior art based on foreign knowledge

of a patented invention, that is a serious compromise in the 9-month window for post grant opposition.

Now it's a limited compromise because if you're talking about an alleged public disclosure in India that occurred a year or two before the patent was filed, and now you're talking about an opposition immediately after the patent was granted, it may be fair to have that administrative proceeding with limited discovery be able to wipe out a patent.

But let's fast forward 15 years into the life of the patent and then say do you really want less discovery than you can get in a Federal District Court? And do you really want simply an administrative proceeding that was entirely designed to be a quality check in the immediate post issuance period?

My concern with your bill, Representative Berman—which I, frankly, admire your willingness to stick with the patent reform issue given all of the difficulties—is that it goes just a step too far.

In a post grant opposition, you can raise all issues of patentability. You have in an inter parte re-exam the ability to raise almost all issues of patentability except if you want to prove public knowledge of an invention based on its use or sale, which could be anywhere in the world. And frankly, that, to me, is a bridge too far for an administrative proceeding.

Mr. SMITH. Thank you, Mr. Berman.

Mr. Schiff?

Mr. SCHIFF. Sir, I have no further questions.

Mr. SMITH. Okay. Thank you.

That concludes our hearing. Thank you all very much for your testimony. You've been very informative.

I am not sure we resolved everything, but at least we know more than we did. And so, appreciate your expert testimony.

With that, the Subcommittee stands adjourned.

[Whereupon, at 10:20 a.m., the Subcommittee was adjourned.]

## A P P E N D I X

---

### MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE HOWARD L. BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND RANKING MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Mr. Chairman,

Thank you for scheduling this hearing on patent harmonization. The past hearings on patent reform have primarily focused on litigation, quality, and damages issues, but have not really delved into the specifics of the harmonization issues—so I appreciate the opportunity to do so now. We have tried to bring in all the interested parties in this debate—by having witnesses from the technology and pharmaceutical sectors (among others), public interest groups, academics, and the USPTO. Our last attempt at harmonization was met with resistance by the small inventor community and that is why I believe that it is extremely important to include individual inventors in this process. Individual inventors are responsible for nearly half of all U.S. Patent applications filed each year.

Article I, Section 8 of the Constitution is the basis for our patent system today: Congress has the power to promote the progress of science and useful arts, by securing for limited times to authors and *inventors* the exclusive right to their respective writings and discoveries. The United States stands apart in awarding patent protection to the inventor who is “first-to-invent.” Some question whether we are global leaders in innovation specifically because we reap the benefits of a first to invent system.

Confidence in the patent system is essential to encouraging innovation. When functioning effectively, the patent system should encourage inventors to push the boundaries of knowledge and possibility. Two presidential commissions have recommended that the U.S. change its patent system to a first-inventor-to-file system—first in 1966 and again in 1992. Most recently, the National Academies of Science recommends adopting that change as well. The advantages to amending the “first to invent” standard so that the “first inventor to file” is entitled the ownership of a patent seem clear. This change will bring U.S. patent laws into harmony with international patent laws and create ease in determination of priority rights. However, even though this change may encourage inventors to file more quickly and enable inventions to enter the public realm sooner, we must listen and evaluate the concerns of inventors, both large and small, as part of making substantial reform to the system’s framework. I have always been a strong believer in the importance of robust patent protection and as we move towards a global economy, harmonization of patent laws becomes an extremely important issue for discussion.

I yield back the balance of my time.

---

COPY OF THE COALITION BILL FROM Q. TODD DICKINSON, VICE PRESIDENT AND CHIEF  
INTELLECTUAL PROPERTY COUNSEL, GENERAL ELECTRIC COMPANY

**AMENDMENT IN THE NATURE OF A SUBSTITUTE  
TO H.R. 2795**

**OFFERED BY MR. SMITH OF TEXAS**

Strike all after the enacting clause and insert the following:

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Patent Reform Act of 2005”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Reference to title 35, United States Code.
- Sec. 3. Right of the first inventor to file.
- Sec. 4. Right to a patent.
- Sec. 5. Duty of candor.
- Sec. 6. Right of the inventor to obtain damages.
- Sec. 7. Post-grant procedures and other quality enhancements.
- Sec. 8. Submissions by third parties.
- Sec. 9. Transfer of venue.
- Sec. 10. Applicability; transitional provisions.

**SEC. 2. REFERENCE TO TITLE 35, UNITED STATES CODE.**

Whenever in this Act a section or other provision is amended or repealed, that amendment or repeal shall be considered to be made to that section or other provision of title 35, United States Code.

**SEC. 3. RIGHT OF THE FIRST INVENTOR TO FILE.**

(a) **DEFINITIONS.**—Section 100 is amended by adding at the end the following:

“(f) The term ‘inventor’ means the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention.

“(g) The terms ‘joint inventor’ and ‘coinventor’ mean any one of the individuals who invented or discovered the subject matter of a joint invention.

“(h) The ‘effective filing date’ of a claimed invention is—

“(1) the filing date of the patent or the application for patent containing the claim to the invention; or

“(2) if the patent or application for patent is entitled to a right of priority of any other application under section 119, 365(a), or 365(b) or to the benefit of an earlier filing date in the United States under section 120, 121, or 365(c), the filing date of the earliest such application in which the claimed invention is disclosed in the manner provided by the first paragraph of section 112 of this title.

“(i) The term ‘claimed invention’ means the subject matter defined by a claim in a patent or an application for a patent.”.

(b) CONDITIONS FOR PATENTABILITY.—

(1) IN GENERAL.—Section 102 is amended to read as follows:

**“§102. Conditions for patentability; prior art defined; novelty**

“(a) NOVELTY; PRIOR ART.—A patent for a claimed invention may not be obtained if—

“(1) the claimed invention was patented, described in a printed publication, or otherwise publicly known—

“(A) more than one year before the effective filing date of the claimed invention; or

“(B) before the effective filing date of the claimed invention, other than through disclosures made by the inventor or a joint inventor or by others who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

“(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

“(b) LIMITATION ON PRIOR ART.—

“(1) PRIOR INVENTOR DISCLOSURE EXCEPTION.—Subject matter that would otherwise qualify as prior art under subparagraph (B) of subsection (a)(1) shall not be prior art to a claimed invention under such subsection if such subject matter had previously been made publicly known by the inventor or a joint inventor or others who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

“(2) DERIVATION, PRIOR DISCLOSURE AND COMMON ASSIGNMENT EXCEPTIONS.—

Subject matter that would otherwise qualify as prior art only under subsection (a)(2), after taking into account the exception under paragraph (1), shall not be prior art to a claimed invention if—

“(A) the subject matter was obtained directly or indirectly from the inventor or a joint inventor;

“(B) subject matter had previously been made publicly known by the inventor or a joint inventor or others who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

“(C) the subject matter and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

“(3) JOINT RESEARCH AGREEMENT EXCEPTION.—

“(A) IN GENERAL.—Subject matter and a claimed invention shall be deemed to have been owned by the same person or subject to an obligation of assignment to the same person in applying the provisions in paragraph (2) of this subsection (b) if—

“(i) the claimed invention was made by or on behalf of parties to a joint research agreement that was in effect on or before the effective filing date of the claimed invention;

“(ii) the claimed invention was made as a result of activities undertaken within the scope of the joint research agreement; and

“(iii) the application for patent for the claimed invention discloses or is amended to disclose the names of the parties to the joint research agreement.

“(B) For purposes of subparagraph (A), the term “joint research agreement” means a written contract, grant, or cooperative agreement entered into by two or more persons or entities for the performance of experimental, developmental, or research work in the field of the claimed invention.

“(4) REASONABLE AND EFFECTIVE ACCESSIBILITY REQUIREMENT.—

“(A) IN GENERAL.—Subject matter is publicly known for the purposes of subsection (a)(1) only when—



“(i) it becomes reasonably and effectively accessible through its use, sale, or disclosure by other means; or

“(ii) it is embodied in or otherwise inherent in subject matter that has become reasonably and effectively accessible.

“(B) REASONABLE AND EFFECTIVE ACCESSIBILITY.—For purposes of subparagraph (A)—

“(i) subject matter is reasonably accessible if persons of ordinary skill in the art to which the subject matter pertains are able to gain access to the subject matter without resort to undue efforts; and

“(ii) subject matter is effectively accessible if persons of ordinary skill in the art to which the subject matter pertains are able to comprehend the content of the subject matter without resort to undue efforts.

“(5) PATENTS AND PUBLISHED APPLICATIONS EFFECTIVELY FILED.—A patent or application for patent is effectively filed under subsection (a)(2) with respect to any subject matter described in the patent or application—

“(A) as of the filing date of the patent or the application for patent; or

“(B) if the patent or application for patent is entitled to claim a right of priority under section 119, 365(a), or 365(b) or to claim the benefit of an earlier filing date under section 120, 121, or 365(c), based upon one or more prior filed applications for patent, as of the filing date of the earliest such application that describes the subject matter.”.

(2) CONFORMING AMENDMENT.—The item relating to section 102 in the table of sections for chapter 10 is amended to read as follows:

“102. Conditions for patentability; prior art defined; novelty.”.

(c) CONDITIONS FOR PATENTABILITY; NON-OBVIOUS SUBJECT MATTER.—Section 103 is amended—

(1) in subsection (a)—

(A) by striking “(a) A patent may not be obtained though the invention” and inserting “A patent for a claimed invention may not be obtained though the claimed invention”;

(B) by striking “at the time the invention was made” and inserting “before the effective filing date of the claimed invention”; and

(C) by striking “sought to be patented” and inserting “of the claimed invention”; and

(2) by striking subsection (b) and subsection (c) .

(d) REPEAL OF REQUIREMENTS FOR INVENTIONS MADE ABROAD.—Section 104, and the item relating to that section in the table of sections for chapter 10, are repealed.

(e) REPEAL OF STATUTORY INVENTION REGISTRATION.—

(1) IN GENERAL.—Section 157, and the item relating to that section in the table of sections for chapter 14, are repealed.

(2) REMOVAL OF CROSS-REFERENCE.—Section 111(b)(8) is amended by striking “sections 115, 131, 135, and 157” and inserting “sections 131 and 135”.

(f) EARLIER FILING DATE FOR INVENTOR AND JOINT INVENTOR.—Section 120 is amended by striking “which is filed by an inventor or inventors named” and inserting “which names an inventor or joint inventor”.

(g) CONFORMING AMENDMENTS.—

(1) RIGHT OF PRIORITY.—Section 172 is amended by striking “and the time specified in section 102(d)”.

(2) LIMITATION ON REMEDIES.—Section 287(c)(4) is amended by striking “the earliest effective filing date of which is prior to” and inserting “which has an effective filing date before”.

(3) INTERNATIONAL APPLICATION DESIGNATING THE UNITED STATES: EFFECT.—Section 363 is amended by striking “except as otherwise provided in section 102(e) of this title”.

(4) PUBLICATION OF INTERNATIONAL APPLICATION: EFFECT.—Section 374 is amended by striking “sections 102(e) and 154(d)” and inserting “section 154(d)”.

(5) PATENT ISSUED ON INTERNATIONAL APPLICATION: EFFECT.—The second sentence of section 375(a) is amended by striking “Subject to section 102(e) of this title, such” and inserting “Such”.

(6) LIMIT ON RIGHT OF PRIORITY.—Section 119(a) is amended by striking “; but no patent shall be granted” and all that follows through “one year prior to such filing”.

(7) INVENTIONS MADE WITH FEDERAL ASSISTANCE.—Section 202(c) is amended—

(A) in paragraph (2)—

(i) by striking “publication, on sale, or public use,” and all that follows through “obtained in the United States” and inserting “the 1-year period referred to in section 102(a) would end before the end of such 2-year period”; and

(ii) by striking “the statutory” and inserting “the 1-year”; and

(B) in paragraph (3), by striking “any statutory bar date that may occur under this title due to publication, on sale, or public use” and inserting “the expiration of the 1-year period referred to in section 102(a)”.

(h) REPEAL OF INTERFERING PATENT REMEDIES.—Section 291, and the item relating to that section in the table of sections for chapter 29, are repealed.

(i) INVENTOR’S RIGHTS CONTESTS.—Section 135(a) is amended to read as follows:

“(a) DISPUTE OVER RIGHT TO PATENT.—

“(1) INSTITUTION OF INVENTOR’S RIGHTS CONTEST.—Whenever patents or applications for patent naming different individuals as the inventor are deemed by the Director to interfere because of a dispute over the right to patent under section 101, the Director shall institute an inventor’s rights contest for the purpose of determining the right to patent.

“(2) DETERMINATION BY BOARD OF PATENT APPEALS.—The Board of Patent Appeals—

“(A) shall determine the question of the right to patent;

“(B) in appropriate circumstances, may correct the naming of the inventor in any application or patent at issue; and

“(C) shall issue a final decision on the right to patent.

“(3) EFFECT OF FINAL DECISION.—The final decision of the Board of Patent Appeals under paragraph (2), if adverse to the claim of an applicant, shall constitute the final refusal by the Patent and Trademark Office on the claims involved. The Director may issue a patent to an applicant who is adjudged to have the right to patent. The final decision of the Board, if adverse to a patentee, shall, if no appeal or other review of the decision has been or can be taken or had, constitute cancellation of the claims involved in the patent, and notice of such cancellation shall be endorsed on copies of the patent distributed after such cancellation by the Patent and Trademark Office.”.

(j) BOARD OF PATENT APPEALS.—

(1) ELIMINATION OF REFERENCES TO INTERFERENCES.—(A) Sections 6, 41, 134, 141, 145, 146, 154, 305, and 314 are each amended by striking “Board of Patent Appeals and Interferences” each place it appears and inserting “Board of Patent Appeals”.

(B) Sections 6, 135, 141, 146, and 154 are each amended by striking “interference” each place it appears and inserting “inventor’s rights contest”.

(C) The section heading for section 6 is amended to read as follows:  
“§6. Board of Patent Appeals”.

(D) The section heading for section 134 is amended to read as follows:  
“134. Appeal to the Board of Patent Appeals”.

(E) The section heading for section 135 is amended to read as follows:  
“135. Inventor’s rights contests”.

(F) The section heading for section 146 is amended to read as follows:  
“146. Civil action in case of inventor’s rights contest”.

(G) Section 154(b)(1)(C) is amended by striking “interferences” and inserting “inventor’s rights contests”.

(H) The item relating to section 6 in the table of sections for chapter 1 is amended to read as follows:

“6. Board of Patent Appeals.”.

(I) The items relating to sections 134 and 135 in the table of sections for chapter 12 are amended to read as follows:

“134. Appeal to the Board of Patent Appeals.  
“135. Inventor’s rights contests.”.

(J) The item relating to section 146 in the table of sections for chapter 13 is amended to read as follows:

“146. Civil action in case of inventor’s rights contest.”.

(2) TECHNICAL AND CONFORMING AMENDMENTS.—Section 135(c) is amended—

(A) by striking “(c) Any” and inserting “(c)(1) Any”;

(B) in the second paragraph, by striking “The Director” and inserting “(2) The Director”; and

(C) in the third paragraph, by striking “Any discretionary” and inserting “(3) Any discretionary”.

**SEC. 4. RIGHT TO A PATENT.**

(a) RIGHT TO PATENT.—

(1) IN GENERAL.—Section 101 is amended to read as follows:

**“§101. Right to patent; subject matter eligible for patenting**

“The inventor of any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, has the right to apply for and to obtain a patent therefor, subject to the conditions and requirements of this title.”.

(2) CONFORMING AMENDMENT.—The item relating to section 101 in the table of sections for chapter 10 is amended to read as follows:

“101. Right to patent; subject matter eligible for patenting.”.

(b) INVENTOR’S OATH OR DECLARATION.—

(1) IN GENERAL. —Section 115 is amended to read as follows:

**“§115 Inventor’s oath or declaration.**

“(a) NAMING THE INVENTOR; INVENTOR’S OATH OR DECLARATION.—An application for patent that is filed under section 111(a) or that commences the national stage under section 363 shall include, or be amended to include, the name of the inventor of any claimed invention in the application. Except as otherwise provided in this section, an individual who is the inventor or a joint inventor of a claimed invention in an application for patent shall execute an oath or declaration in connection with the application.

“(b) REQUIRED STATEMENTS.— An oath or declaration under subsection (a) shall contain statements that—

“(1) the application was made or was authorized to be made by the affiant or declarant and

“(2) such individual believes himself or herself to be the original inventor or an original joint inventor of a claimed invention in the application.

“(c) ADDITIONAL REQUIREMENTS.—The Director may specify additional information relating to the inventor and the claimed invention that must be included in an oath or declaration under subsection (a).

“(d) SUBSTITUTE STATEMENT.—

“(1) IN GENERAL.—In lieu of executing an oath or declaration under subsection (a), the applicant for patent may provide a substitute statement under the circumstances described in paragraph (2) and such additional circumstances that the Director may specify by regulation.

“(2) PERMITTED CIRCUMSTANCES.—A substitute statement under paragraph (1) shall be permitted with respect to any individual who, at the time such substitute statement is filed—

“(A) is deceased,

“(B) is under legal incapacity,

“(C) is under an obligation to assign the invention but has refused to make the oath or declaration required under subsection (a); or

“(D) cannot be found or reached after diligent effort.

“(3) CONTENTS.—A substitute statement under this subsection shall—

“(A) identify the individual with respect to whom the statement applies,

“(B) set forth the circumstances representing the permitted basis for the filing of the substitute statement in lieu of the oath or declaration under subsection (a),

“(C) contain any additional information, including any showing, required by the Director; and

“(D) contain a warning that willful false statements and the like are punishable by fine or imprisonment or both.

“(e) MAKING REQUIRED STATEMENTS IN ASSIGNMENT OF RECORD.—An individual who is under an obligation of assignment of an application for patent may include the required statements under subsections (b) and (c) in the assignment executed by the individual, in lieu of filing such statements separately, if the assignment contains a warning that willful false statements and the like are punishable by fine or imprisonment or both.

“(f) TIME FOR FILING.—A notice of allowance under section 151 may be provided to an applicant for patent only if the applicant for patent has filed each required oath or declaration under subsection (a) or, in lieu thereof, has filed a substitute statement under subsection (d) or recorded an assignment meeting the requirements of subsection (e).

“(g) EARLIER-FILED APPLICATION CONTAINING REQUIRED STATEMENTS OR SUBSTITUTE STATEMENT.—The requirements under this section shall not apply to an individual with respect to an application for patent in which the individual is named as the inventor or a joint inventor and that, for each claimed invention, is entitled to the benefit under section 120 or 365(c) of the filing of an earlier-filed application, if—

- “(1) an oath or declaration meeting the requirements of subsection (a) was executed by the individual and was filed in connection with the earlier-filed application,
- “(2) a substitute statement meeting the requirements of subsection (d) was filed in the earlier-filed application with respect to the individual, or
- “(3) an assignment meeting the requirements of subsection (e) was executed with respect to the earlier-filed application by the individual and was recorded in connection with the earlier-filed application.

“(h) SUPPLEMENTAL AND CORRECTED STATEMENTS; FILING ADDITIONAL STATEMENTS.—

“(1) IN GENERAL.—A statement made under this section may be withdrawn, replaced, or otherwise corrected at any time. If a change is made in the naming of the inventor requiring the filing of one or more additional statements under this section, the Director shall establish regulations under which such additional statements may be filed.

“(2) SUPPLEMENTAL STATEMENTS NOT REQUIRED.—If an individual has executed an oath or declaration under subsection (a) or an assignment meeting the requirements of subsection (e) with respect to an application for patent, no supplemental oath or declaration or further substitute statement shall thereafter be required in connection with the application for patent or any patent issuing thereon.

“(3) SAVINGS CLAUSE.—No patent shall be invalid or unenforceable based upon the failure to comply with a requirement under this section if the failure is remedied as provided under paragraph (1).”

(2) RELATIONSHIP TO DIVISIONAL APPLICATIONS.—Section 121 is amended by striking “If a divisional application” and all that follows through “inventor.”.

(3) REQUIREMENTS FOR NON-PROVISIONAL APPLICATIONS.—Section 111(a) is amended by striking “by the applicant” and inserting “or declaration” and by striking each occurrence of “and oath”.

(4) CONFORMING AMENDMENT.—The item relating to section 115 in the table of sections for chapter 10 is amended to read as follows:

“115. Inventor’s oath or declaration.”.

(c) FILING BY OTHER THAN INVENTOR.—Section 118 is amended to read as follows:

**“§118. Filing by other than inventor**

“A person to whom the inventor has assigned or is under an obligation to assign the invention may make an application for patent. A person who otherwise shows sufficient proprietary interest in the matter may make an application for patent on behalf of and as agent for the inventor on proof of the pertinent facts and a showing that such action is appropriate to preserve the rights of the parties. If the Director grants a patent on an application filed under this section by a person other than the inventor, the patent shall be granted to the real party in interest and upon such notice to the inventor as the Director considers to be sufficient.”.

(d) SPECIFICATION.—Section 112 is amended—

(1) in the first paragraph—

(A) by striking “The specification” and inserting “(a) IN GENERAL.—The specification”; and

(B) by striking “, and shall set forth the best mode contemplated by the inventor of carrying out his invention”;

(2) in the second paragraph—

(A) by striking “The specification” and inserting “(b) CONCLUSION.—The specification”; and

(B) by striking “applicant regards as his invention” and inserting “inventor or a joint inventor regards as the invention”;

(3) in the third paragraph, by striking “A claim” and inserting “(c) FORM.—A claim”;

(4) in the fourth paragraph, by striking “Subject to the following paragraph,” and inserting “(d) REFERENCE IN DEPENDENT FORMS.—Subject to subsection (e).”;

(5) in the fifth paragraph, by striking “A claim” and inserting “(e) REFERENCE IN MULTIPLE DEPENDENT FORM.—A claim”; and



(6) in the last paragraph, by striking “An element” and inserting “(f) ELEMENT IN CLAIM FOR A COMBINATION.—An element”.

**SEC. 5. DUTY OF CANDOR.**

(a) IN GENERAL—Chapter 12 of title 35, United States Code, is amended by adding at the end the following:

**“§136. Duty of candor: patents and applications for patent**

“(a) DUTY.—The Director shall by regulation impose a duty of candor and good faith on individuals associated with the filing and prosecution of an application for patent and on individuals assisting a patent owner in proceedings before the Office involving a patent. The duty shall require each such individual to timely disclose information known to that individual to be material to any issue before the Office in connection with the application or patent, and to not materially misrepresent information. The duty may further address the types of information for which disclosure is required and the standards upon which a finding of misrepresentation or concealment on the part of such individuals could be based. Any allegation of any type of violation of the duty of candor and good faith under this subsection shall be governed exclusively by this chapter.

“(b) MISCONDUCT DEFINED.—An individual has engaged in misconduct under this section only if, by clear and convincing evidence, findings are made that—

“(1) the individual knowingly failed to disclose information or knowingly misrepresented information;

“(2) the information not disclosed was material or, in the case of a misrepresentation, the misrepresentation was material;

“(3) the individual had knowledge of the materiality of the information not disclosed or, in the case of a misrepresentation, had knowledge of the materiality of the misrepresentation; and

“(4) the individual’s intent was to deceive or mislead.”

“(c) LIMITS ON THE ADJUDICATION OF MISCONDUCT ISSUES.—

“(1) FORA PRECLUDED FROM MISCONDUCT DETERMINATIONS AND ADJUDICATIONS.—No court or Federal department or agency other than the Office, and no other Federal or State governmental entity, may investigate or make a determination or an adjudication with respect to an alleged violation of the duty of candor and good faith

under subsection (a) or with respect to an alleged fraud, inequitable conduct, or other misconduct in any proceeding before the Office involving a patent or in connection with the filing or examination of an application for patent, except as expressly permitted in this section.

“(2) AUTHORITY OF DIRECTOR.—Nothing in this subsection shall limit the authority of the Director to enforce regulations concerning pending applications for patent or proceedings before the Office involving a patent, including regulations relating to misconduct.

“(3) LIMITATION ON DEFENSES TO ENFORCEMENT OF PATENT.— No defense of invalidity of a patent or other defense to the enforcement of a patent may be based in whole or in part upon a violation of the duty of candor and good faith under subsection (a) or on any fraud, inequitable conduct, or other misconduct, except as expressly permitted in this section.

“(4) REFERRAL BY COURT.—In any matter before a court involving an issue of validity or infringement of a patent, if the court determines that an issue of possible misconduct under subsection (b) exists, the court shall refer the matter to the Office for investigation under this section. If such referral is made, the matter shall be resolved as provided in this section.

“(d) UNENFORCEABILITY ACTION.—

“(1) IN GENERAL.—A patent may be held unenforceable if a court determines, pursuant to a pleading permitted under paragraph (2), that—

“(A) misconduct under subsection (b) has occurred and constitutes fraud by reason of reliance by the Office on the misconduct which has resulted in the issuance of, or a certificate affirming patentability of, one or more invalid claims in a patent; and

“(B) the fraud is attributable to the patent owner.

“(2) REQUIRED MOTION TO PLEAD UNENFORCEABILITY.—The defense of unenforceability described in paragraph (1) may be pled in an action before a court only upon a motion to amend the pleadings in the action. The court shall not grant the motion unless—

“(A) the validity of one or more claims in the patent is at issue in the action;

“(B) the court has previously entered a judgment in the action that a claim in the patent is invalid;

“(C) the motion to amend the pleadings is brought by a party to the action adverse to the patent owner within 3 months after a judgment is entered by the court invalidating the claim; and

“(D) the motion sets out with particularity a substantial basis for findings that—

“(i) because of the reliance of the Office on the misconduct, fraud took place in a proceeding before the Office involving the patent or in connection with the filing or examination of the application for patent, and as a result at least 1 claim in the patent invalidated in the action was issued as a result of the reliance on the misconduct; and

“(ii) the alleged fraud is attributable to the patent owner.

“(3) REQUIRED FINDINGS FOR UNENFORCEABILITY.—

“(A) LIABILITY OF PATENT OWNER.—In determining the unenforceability of a patent, no misconduct under subsection (b) by an individual registered to practice before the Office and acting in a representative capacity before the Office in a proceeding before the Office involving the patent or in connection with the filing or examination of the application for patent shall be attributable to the patent owner unless the patent owner, or another individual who—

“(i) is subject to the duty of candor and good faith with respect to the patent,

“(ii) is not registered to practice before the Office, and

“(iii) was acting on the patent owner’s behalf,

is determined to have violated the duty of candor and good faith.

“(B) RELIANCE OF THE PATENT EXAMINER.—No misconduct may be determined to constitute fraud sufficient to support a finding that a patent is unenforceable without clear and convincing evidence of reliance of the Office on the alleged misconduct, resulting in the issuance of a claim invalidated by the court because a competent patent examiner either—

“(i) would not have issued the invalidated claim, acting reasonably, in the absence of the misconduct; or

“(ii) based upon the prosecution history as a whole objectively considered, would have done so based upon in whole or in part on account of the misconduct.

“(4) PRESUMPTION OF ATTRIBUTION TO THE PATENT OWNER.—For purposes of applying subsection 3(A), it shall be presumed that a decision to take action or a decision not to take an action in connection with a matter before the Office was undertaken with the knowledge and consent of the patent owner, if undertaken by an individual who—

“(A) was registered to practice before the Office and

“(B) was determined to have engaged in misconduct under subsection (b) on account of such action taken or such failure to take action.

“(e) REFERRAL TO OFFICE.—The Director shall establish a special office to receive referrals made under paragraph (c)(4). The special office, following a referral and after such investigation of the matter that the Director determines is appropriate, shall report to the Director whether probable cause exists to believe that an individual subject to the duty under subsection (a) may have engaged in misconduct under subsection (b). If such probable cause exists, the Director shall—

“(1) take such action, if any, that the Director determines is appropriate under section 32 and

“(2) if a violation of section 1001(a) of title 18 may have taken place, refer the matter to the Attorney General for appropriate action.

“(f) OTHER ACTIONS NOT SUBJECT TO PREEMPTION.—

“(1) IN GENERAL.—Nothing in this section shall in any manner operate to—

“(A) prevent or otherwise obstruct a criminal investigation, or an investigation by the Attorney General of any provision of the antitrust laws, or preempt any enforcement action resulting therefrom;

“(B) limit the ability of the courts of any State or the District of Columbia to investigate and make determinations with respect to issues of attorney malpractice and impose sanctions on an attorney for malpractice; or

“(C) limit the ability of any entity before which an individual is registered or otherwise entitled to practice a profession to investigate and sanction such individual based upon professional misconduct.

“(2) DEFINITION.—For purposes of paragraph (1), the term ‘antitrust laws’ has the meaning given that term in the first section of the Clayton Act and includes section 5

of the Federal Trade Commission Act to the extent that section relates to unfair methods of competition.

“(g) ADDITIONAL REMEDIES AVAILABLE BASED UPON PRIOR MISCONDUCT ADJUDICATION.—

(1) FURTHER REMEDIES.—If a final, nonappealable adjudication of misconduct based upon a pleading or an action permitted under this section has been made, it may be used as a basis for pursuit of further remedies under any Federal or State law, including common law.

(2) EXCEPTION.—Nothing in paragraph (1) shall authorize any pleading or holding of unenforceability of a patent that is not expressly permitted under subsection (d).

**“§137. Duty of candor: parties adverse to a patent or application**

“(a) DUTY.—The Director shall prescribe by regulation a duty of candor and good faith applicable to individuals who are parties adverse to a patent or application for patent in contested cases before the Office. The duty shall apply to individuals associated with such a proceeding on behalf of a party adverse to the patent or application. Each such individual shall timely disclose information known to that individual to be material to issues raised or responded to by the adverse party on whose behalf the individual is involved and shall not materially misrepresent information.

“(b) MISCONDUCT.—Misconduct under this section shall be defined with respect to individuals described in subsection (a) in the same manner as that provided in section 136(b) with respect to individuals under that section. The Director may conduct an investigation of possible misconduct by an individual based upon a violation of the duty described in subsection (a) in the manner provided in section 136(e).”.

(b) TABLE OF SECTIONS.—The table of sections for chapter 12 is amended by adding at the end the following new items:

“136. Duty of candor: patents and applications for patent.

“137. Duty of candor: parties adverse to a patent or application.”.

(c) REMOVAL OF DECEPTIVE INTENT RESTRICTION.—

(1) INVENTOR.—

(A) IN GENERAL.—The third paragraph of section 116 is amended—

(i) by striking “Whenever” and inserting “(c) CORRECTION OF ERRORS IN APPLICATION.—Whenever”; and

(ii) by striking “, and such error arose without any deceptive intention on his part”.

(B) CORRECTION OF NAMED INVENTOR.—Section 256 is amended—

(i) in the first paragraph—

(I) by striking “Whenever” and inserting “(a) CORRECTION.—Whenever”; and

(II) by striking “and such error arose without any deceptive intention on his part”;

and

(ii) in the second paragraph, by striking “The error” and inserting “(b) PATENT VALID IF ERROR CORRECTED.—The error”.

(2) FILING.—

(A) FILING OF APPLICATION IN FOREIGN COUNTRY.—The first paragraph of section 184 is amended—

(i) by striking “Except when” and inserting “(a) FILING IN FOREIGN COUNTRY.—Except when”; and

(ii) by striking “and without deceptive intent”.

(B) PATENT BARRED FOR FILING WITHOUT LICENSE.—Section 185 is amended by striking “and without deceptive intent”.

(3) REISSUE OF DEFECTIVE PATENTS.—The first paragraph of section 251 is amended—

(A) by striking “Whenever” and inserting “(a) IN GENERAL.—Whenever”; and

(B) by striking “, through error without any deceptive intention,”.

(4) DISCLAIMER.—The first paragraph of section 253 is amended—

(A) by striking “Whenever” and inserting “(a) IN GENERAL.—Whenever”; and

(B) by striking “, without any deceptive intention,”.

(5) ACTION FOR INFRINGEMENT.—Section 288 is amended by striking “, without deceptive intention,”.

(d) JURISDICTION OVER CLAIMS.—Section 281 is amended—

(1) by striking “A patentee” and inserting “(a) IN GENERAL.—A patentee”; and

(2) by adding at the end the following:

“(b) CLAIMS ALLEGED TO HAVE BEEN INFRINGED.—The court shall have jurisdiction to determine the validity of any claim specifically alleged in an action under

subsection (a) to have been infringed, even if the allegation of infringement is later withdrawn with respect to such claim.”

(e) MISCONDUCT PROCEEDINGS.—Section 32 is amended by inserting at the end the following: “A suit or proceeding under this section may be brought if commenced—

“(1) during the 5-year period beginning on the date of the conduct at issue; or

“(2) if the conduct at issue relates to a patent or to an application that issued as a patent, before the date that is the later of—

“(A) six years from the end of the statutory term of the patent; or

“(B) the end of the 2-year period beginning on the date on which the first judgment is entered that the conduct at issue represented misconduct under any provision of this title.”

(f) TECHNICAL AMENDMENTS.—(1) Section 116 is amended—

(A) in the first paragraph, by striking “When” and inserting “(a) JOINT INVENTIONS.—When”; and

(B) in the second paragraph, by striking “If a joint inventor” and inserting “(b) OMITTED INVENTOR.—If a joint inventor”.

(2) Section 184 is amended—

(A) in the second paragraph, by striking “The term” and inserting “(b) APPLICATION.—The term”; and

(B) in the third paragraph, by striking “The scope” and inserting “(c) SUBSEQUENT MODIFICATIONS, AMENDMENTS, AND SUPPLEMENTS.—The scope”.

(3) Section 251 is amended—

(A) in the second paragraph, by striking “The Director” and inserting “(b) MULTIPLE REISSUED PATENTS.—The Director”;

(B) in the third paragraph, by striking “The provision” and inserting “(c) APPLICABILITY OF THIS TITLE.—The provisions”; and

(C) in the last paragraph, by striking “No reissued patent” and inserting “(d) REISSUE PATENT ENLARGING SCOPE OF CLAIMS.—No reissued patent”.

(4) Section 253 is amended in the second paragraph, by striking “in like manner” and inserting “(b) ADDITIONAL DISCLAIMER OR DEDICATION.—In the manner set forth in subsection (a),”.

**SEC. 6. RIGHT OF THE INVENTOR TO OBTAIN DAMAGES.**

(a) Section 284 is amended—

(1) in the first paragraph—

(A) by striking “Upon” and inserting “(a) AWARD OF DAMAGES.—Upon”; and

(B) by adding at the end the following: “In determining a reasonable royalty consideration shall be given to, among other relevant factors, the portion of the realizable profit or value that should be credited to the contributions arising from the claimed invention as distinguished from contributions arising from features, manufacturing processes or improvements added by the infringer and from the business risks the infringer undertook in commercialization.”;

(2) by amending the second paragraph to read as follows:

“(b) WILLFUL INFRINGEMENT.—

“(1) INCREASED DAMAGES.—A court that has determined that the infringer has willfully infringed a patent or patents may increase the damages up to three times the amount of damages found or assessed under subsection (a), except that increased damages under this paragraph shall not apply to provisional rights under section 154(d) of this title.

“(2) PERMITTED GROUNDS FOR WILLFULNESS.—A court may find that an infringer has willfully infringed a patent only if the patent owner presents clear and convincing evidence that—

“(A) after receiving written notice from the patentee—

“(i) alleging acts of infringement in a manner sufficient to give the infringer an objectively reasonable apprehension of suit on such patent, and

“(ii) identifying with particularity each claim of the patent, each product or process that the patent owner alleges infringes the patent, and the relationship of such product or process to such claim,

the infringer, after a reasonable opportunity to investigate, thereafter performed one or more of the alleged acts of infringement;

“(B) the infringer intentionally copied the patented invention with knowledge that it was patented; or



“(C) after having been found by a court to have infringed that patent, the infringer engaged in conduct that was not colorably different from the conduct previously found to have infringed the patent, and which resulted in a separate finding of infringement of the same patent.

“(3) LIMITATIONS ON WILLFULNESS.—(A) A court shall not find that an infringer has willfully infringed a patent under paragraph (2) for any period of time during which the infringer had an informed good faith belief that the patent was invalid or unenforceable, or would not be infringed by the conduct later shown to constitute infringement of the patent.

“(B) An informed good faith belief within the meaning of subparagraph (A) may be established by reasonable reliance on advice of counsel.

“(C) The decision of the infringer not to present evidence of advice of counsel shall have no relevance to a determination of willful infringement under paragraph (2).

“(4) LIMITATION ON PLEADING.— Prior to the date that a determination has been made that the patent in suit is not invalid, is enforceable and has been infringed by the infringer, a patentee may not plead and a court may not determine that an infringer has willfully infringed a patent. The court’s determination of an infringer’s willfulness shall be made without the involvement of a jury.”; and

(3) in the third paragraph, by striking “The court” and inserting “(c) EXPERT TESTIMONY.—The court”.

(b) Section 271(f) is repealed and reserved.

**SEC. 7. POST-GRANT PROCEDURES AND OTHER QUALITY ENHANCEMENTS.**

(a) PUBLICATION.—Section 122(b)(2) is amended—

(1) by striking subparagraph (B); and

(2) in subparagraph (A)—

(A) by striking “(A) An application” and inserting “An application”; and

(B) by redesignating clauses (i) through (iv) as subparagraphs (A) through (D),

respectively.

(b) DEFENSE TO INFRINGEMENT BASED ON EARLIER INVENTOR.—Section 273 of title 35, United States Code, is amended—

(1) in subsection (a)—

- (A) in paragraph (1)–
  - (i) by striking “of a method”; and
  - (ii) by striking “review period;” and inserting “review period; and”;
- (B) in paragraph (2)(B), by striking the semicolon at the end and inserting a period; and
- (C) by striking paragraphs (3) and (4);
- (2) in subsection (b)–
  - (A) in paragraph (1)–
    - (i) by striking “for a method”; and
    - (ii) by striking “at least 1 year before the effective filing date of such patent, and” and all that follows through the period and inserting “and commercially used, or made substantial preparations for commercial use of, the subject matter before the effective filing date of the claimed invention.”;
  - (B) in paragraph (2)–
    - (i) by striking “The sale or other disposition of a useful end result produced by a patented method” and inserting “The sale or other disposition of subject matter that qualifies for the defense set forth in this section”; and
    - (ii) by striking “a defense under this section with respect to that useful end result” and inserting “such defense”; and
  - (C) in paragraph (3)–
    - (i) by striking subparagraph (A); and
    - (ii) by redesignating subparagraphs (B) and (C) as subparagraphs (A) and (B), respectively;
  - (3) in paragraph (7), by striking “of the patent” and inserting “of the claimed invention”; and
  - (4) by amending the heading to read as follows:  
**“§273. Special defenses to and exemptions from infringement”.**
  - (c) TABLE OF SECTIONS.–The item related to section 273 in the table of sections for chapter 28 is amended to read as follows:  
“273. Special defenses to and exemptions from infringement.”.

(d) REEXAMINATION.—Section 315(c) is amended by striking “or could have raised”.

(e) EFFECTIVE DATES.—Notwithstanding any other provision of law, sections 311 through 318 of title 35, United States Code, as amended by this Act, shall apply to any patent that issues from an original application filed on any date.

(f) POST-GRANT OPPOSITION PROCEDURES.—

(1) IN GENERAL.—Part III is amended by adding at the end the following new chapter:

**“CHAPTER 32—POST-GRANT OPPOSITION PROCEDURES**

- “321. Right to oppose patent; opposition request.
- “322. Real party in interest.
- “323. Timing of opposition request.
- “324. Limits on scope of validity issues raised.
- “325. Institution of the opposition proceeding.
- “326. Patent owner response.
- “327. Amendment of claims.
- “328. Discovery and sanctions.
- “329. Supplemental submissions.
- “330. Hearing and briefs.
- “331. Written decision.
- “332. Burden of proof and evidence.
- “333. Reconsideration.
- “334. Appeal.
- “335. Certificate.
- “336. Estoppel.
- “337. Duration of opposition.
- “338. Settlement.
- “339. Intervening rights.
- “340. Relationship with reexamination proceedings.

**“§321. Right to oppose patent; opposition request**

“(a) FILING OF OPPOSITION.—A person may request that the grant or reissue of a patent be reconsidered by the Office by filing an opposition seeking to cancel one or more claims in the patent. The request shall identify with particularity the reasons why one or more claims of the patent do not comply with the requirements of this title specified in Section 324, and shall identify the evidence that supports the reasons set forth in the request. The Director shall establish, by regulation, fees to be paid by the opposer. Copies of patents and printed publications to be relied upon in support of the request must be filed with the request. If an opposer relies on other factual evidence or on

expert opinions in support of the opposition, such evidence and opinions must be filed with the request through one or more accompanying affidavits or declarations.

“(b) COPIES PROVIDED TO PATENT OWNER.—Copies of any documents filed under subsection (a) must be provided to the patent owner or, if applicable, the designated representative of the patent owner, at the time of filing under subsection (a), except that if a request is made under section 322(b) that the identity of a real party in interest be kept separate, then the identity of the real party in interest may be redacted from the copies provided.

“(c) FILE AVAILABLE TO THE PUBLIC.—The file of any opposition proceeding shall be made available to the public except as provided in section 322.

**“§322. Real party in interest**

“(a) IDENTIFICATION.—The person making the request under section 321 shall identify in writing each real party in interest, and the opposition shall proceed in the name of the real party in interest.

“(b) IDENTITY KEPT SECRET UPON REQUEST.—

“(1) IN GENERAL.—Subject to paragraph (2), if requested by the opposer, the identity of a real party in interest shall be kept separate from the file of the opposition and made available only to Government agencies upon written request, or to any person upon a showing of good cause. If the identity of a real party in interest is kept separate from the file under this subsection, then the opposition shall proceed in the name of the individual filing the request as representative of the real party in interest.

“(2) EXCEPTION.—No request under this paragraph (1) to keep the identity of a real party in interest separate from the file of the opposition may be made or maintained if the opposer relies upon factual evidence or expert opinions in the form of affidavits or declarations during the opposition proceeding or if the opposer becomes a party to an appeal under section 141.

**“§323. Timing of opposition request**

“A person may not make an opposition request under section 321 later than 9 months after the grant of the patent or issuance of a reissue patent, or, if the patent owner consents in writing, an opposition request may be filed at any time during the period of

enforceability of the patent. A court having jurisdiction over an issue of validity of a patent may not require the patent owner to consent to such a request.

**“§324. Limits on scope of validity issues raised**

“An opposition request must identify with particularity the claims that are alleged to be unpatentable and, as to each claim, one or more questions of patentability on which the opposition is based. The questions of patentability that may be considered during the opposition proceeding are double patenting and any of the conditions or requirements for patentability set forth in sections 101, 102, 103, 112, and 251(d).

**“§325. Institution of the opposition proceeding; stay upon timely filed suit**

“(a) DETERMINATION ON OPPOSITION REQUEST; INSTITUTION OF OPPOSITION PROCEEDING.—

“(1) DETERMINATION BY THE DIRECTOR.—For each opposition request submitted under section 321(a) with respect to a patent, the Director shall determine if the written statement, and any evidence submitted with the request, establish that a substantial question of patentability exists for at least one claim in the patent. The Director shall notify the patent owner and each opposer in writing of the Director’s findings, not later than the date in which an opposition proceeding is instituted pursuant to the request. Any determination made by the Director under this paragraph shall not be appealable.

“(2) INSTITUTION.—If the Director makes a determination under paragraph (1) that a substantial question of patentability exists, the Director shall commence an opposition proceeding. The Director shall institute such proceeding not earlier than the date on which the 9-month period specified in section 323 expires, and not later than the date that is three months after such date or, where an opposition request is filed after the 9-month period with the written consent of the patent owner, not later than the date that is three months after the date such opposition request is filed. Absent a showing of good cause, the opposition proceeding shall be limited to review of the claim or claims and the substantial questions of patentability that are determined to exist by the Director.

“(3) CONSOLIDATED PROCEEDING.—If an opposition is instituted based upon more than one opposition request, the opposition shall proceed as a single consolidated proceeding, unless later divided under subsection (c).

“(b) PARTIES.—The parties to the opposition proceeding shall be the patent owner and each opposer who has filed a request that results in a determination under subsection (a)(2) to institute the opposition proceeding.

“(c) ASSIGNMENT TO PANEL.—The Director shall assign the opposition proceeding to a panel of three administrative patent judges (in this chapter referred to as the ‘panel’). The panel shall decide the questions of patentability raised in the opposition request. The decision shall be based upon the prosecution record that was the basis for the grant or reissue of the patent and the additional submissions by the parties to the opposition proceeding authorized under this chapter. The panel may, in appropriate cases, divide the opposition into separate proceedings if the opposition involves multiple opposition requests by different parties.

“(d) RELATIONSHIP TO COURT ACTIONS.—

“(1) STAY OF OPPOSITION.—The determination by the Director under subsection (a)(1) shall not be made, and an opposition proceeding shall not be instituted under subsection (a)(2), with respect to a patent, until after an action alleging infringement of the patent is finally concluded if—

“(A) such a stay is requested by the patent owner,

“(B) the infringement action is filed within of 3 months after the grant of the patent ,

“(C) the Director determines that the infringement action is likely to address the same or substantially the same questions of patentability that would be addressed in the opposition proceeding, and

“(D) the Director determines that staying the opposition would not be contrary to the interests of justice.

“(2) INSTITUTING OPPOSITION FOLLOWING STAY.—Within three months after the date on which a stay under paragraph (1) ends, the Director shall determine whether a substantial question of patentability that was set forth in an opposition request continues to exist. The Director may institute an opposition proceeding following a stay under paragraph (1) only with respect to a substantial question of patentability identified in an opposition request that continues to exist because it was not decided by the court in the infringement action.

“(3) NO STAY OF CONCURRENT COURT ACTION.—A court may not stay an action for infringement.—

“(A) pending a determination of whether to institute an opposition proceeding; or

“(B) if an opposition proceeding is commenced under this chapter, during the pendency of the opposition proceeding.

“(4) EFFECT OF CLAIM INTERPRETATION BY A COURT.—If a court has entered an order interpreting a claim of a patent involved in an opposition proceeding, the order has become final and non-appealable, and the patent owner disclaims any broader interpretation of the claim, the patent owner may elect to have the claim interpretation of the court govern proceedings in the opposition.”

**“§326. Patent owner response**

“After the Director has instituted an opposition proceeding under section 325 with respect to a patent, the patent owner shall have the right to file, within a time period set by the Director, a response to each opposition request that results in a determination under section 325(a)(2) to institute an opposition proceeding. The patent owner shall file with the response, through affidavits or declarations, any additional factual evidence and expert opinions on which the patent owner relies in support of the response.

**“§327. Amendment of claims**

“The patent owner is entitled to request amendment of any claims that are the subject of an opposition proceeding under this chapter, including by the addition of new claims. Any such request for amendment shall be filed with the patent owner’s response to the opposition proceeding. The panel may permit further requests for amendment of the claims only upon good cause shown by the patent owner. No amendment enlarging the scope of the claims of the patent shall be permitted in the opposition proceeding.

**“§328. Discovery and sanctions**

“(a) DEPOSITIONS.—After an opposition proceeding under this chapter is instituted, the patent owner shall have the right to depose each person submitting an affidavit or declaration on behalf of any opposer, and each opposer shall have the right to depose each person submitting an affidavit or declaration on behalf of the patent owner. Such depositions shall be limited to cross-examination on matters relevant to the affidavit or declaration.

“(b) **ADDITIONAL DISCOVERY.**—No discovery other than that provided for in subsection (a) shall be permitted unless the panel determines that additional discovery is required in the interest of justice.

“(c) **SCHEDULE.**—The panel shall determine the schedule for the taking of discovery under subsections (a) and (b).

“(d) **CONSEQUENCES FOR FAILURE TO RESPOND PROPERLY.**—If any party to an opposition proceeding fails to properly respond to any discovery under subsection (a) or (b), the panel may draw appropriate adverse inferences and take other action permitted by statute, rule, or regulation.

**“§329. Supplemental submissions**

“The panel may permit one or more supplemental submissions to be made by any party to an opposition proceeding under this chapter, subject to the rights and limitations on discovery under section 328.

**“§330. Hearing and briefs**

“A party to an opposition proceeding under this chapter may request an oral hearing by the date set by the panel. If a hearing is requested or the panel determines sua sponte that a hearing is warranted, the panel shall set a time for the hearing. The panel may permit the parties to file briefs for the hearing, and shall permit cross-examination of all affiants and declarants in the hearing, either before the panel or by deposition taken under section 328.

**“§331. Written decision**

“The panel shall issue a written decision on each issue of patentability with respect to each claim that is the subject of an opposition proceeding under this chapter. The written decision shall consist of findings of fact and conclusions of law. The written decision shall become a final determination of the Office on the questions raised in the opposition unless a party to the opposition files a request for reconsideration and modification of the written decision within a period of time set by the panel. Such time period shall not be less than two weeks after the date of the written decision.

**“§332. Burden of proof and evidence**

“(a) **BURDEN OF PROOF.**—The opposer in an opposition proceeding under this chapter shall have the burden to prove the invalidity of a claim by a preponderance of the



evidence. The determination of patentability shall be based upon the broadest reasonable construction of the claim.

“(b) EVIDENCE.—The Federal Rules of Evidence shall apply to the opposition proceeding, except to the extent inconsistent with any provision of this chapter.

**“§333. Reconsideration**

“If a request is filed for reconsideration of the written decision in an opposition proceeding under this chapter, the panel may authorize a party to the proceeding who did not file such a request to file a response to the request for reconsideration. Following any reconsideration, the panel shall either deny the request for modification of the written decision or grant the request and issue a modified written decision, which shall constitute the final determination of the Office on the questions raised in the opposition proceeding.

**“§334. Appeal**

“A party dissatisfied with the final determination of the panel in an opposition proceeding under this chapter may appeal the determination under sections 141 through 144. Any party to the opposition proceeding shall have the right to be a party to the appeal.

**“§335. Certificate**

“When a decision of a panel in an opposition proceeding under this chapter has become final under section 331, 333, or 334, the Director shall issue and publish a certificate in accordance with the decision, canceling any claim of the patent determined to be unpatentable, and shall incorporate into the patent any new or amended claims determined to be patentable. The issuance of the certificate shall terminate the opposition proceeding.

**“§336. Estoppel**

“(a) ESTOPPEL.—

“(1) IN GENERAL.—Subject to paragraph (2), after a certificate has been issued under section 335 in accordance with the decision of the panel in an opposition proceeding, the determination with respect to a question of patentability raised by an opposer shall bar the opposer from asserting, in any subsequent proceeding before the Office or a court involving that opposer under this title, that any claim of that patent

addressed in the opposition proceeding is invalid on the basis of any issue of fact or law actually decided by the panel and necessary to the determination of that issue.

“(2) EXCEPTION.—If an opposer in an opposition proceeding demonstrates in a subsequent proceeding referred to in paragraph (1) that there is additional factual evidence that is material to an issue of fact actually decided and necessary to the final determination in the opposition proceeding, that could not reasonably have been discovered by that opposer, the opposer may raise, in that subsequent proceeding, that issue of fact and any determined issue of law for which the issue of fact was necessary.

“(b) EXPANDED DEFINITION OF OPPOSER.—For purposes of this section, the term ‘opposer’ includes the person making the request under section 321, any real party in interest, and their successors in interest.

“(c) NEW PARTY IN INTEREST.—If a proceeding arising by reason of additional factual evidence raised under subsection (a)(2) involves a real party in interest not identified to the patent owner under section 322, the real party in interest shall notify the Director and the patent owner of that fact and of the subsequent proceeding, within 30 days after receiving notice that the subsequent proceeding has been filed.

**“§337. Duration of opposition**

“The final determination of a panel described in section 333 shall issue not later than one year after the date on which the opposition proceeding is instituted under section 325. Upon good cause shown, the Director may extend the 1-year period by not more than six months.

**“§338. Settlement**

“(a) IN GENERAL.—An opposition proceeding under this chapter shall be terminated with respect to any opposer upon the joint request of the opposer and the patent owner, unless the panel has issued a written decision under section 331 before the request for termination is filed. If the opposition is terminated with respect to an opposer under this section, no estoppel under section 336 shall apply to that opposer. If no opposer remains in the proceeding, the panel may terminate the proceeding or proceed in the absence of an opposer to issue a written decision under section 331.

“(b) AGREEMENTS IN WRITING.—Any agreement or understanding between the patent owner and an opposer, including any collateral agreements referred to therein, that

is made in connection with or in contemplation of the termination of an opposition proceeding, shall be in writing. An opposition proceeding as between the parties to the agreement or understanding shall not be terminated until a true copy of the agreement or understanding, including any such collateral agreements, has been filed in the Office. If any party filing an agreement or understanding requests, the agreement or understanding shall be kept separate from the file of the opposition, and shall be made available only to Government agencies on written request, or to any person on a showing of good cause.

“(c) DISCRETIONARY ACTIONS REVIEWABLE.—Any discretionary action of the Director under subsection (b) shall be reviewable under chapter 7 of title 5.

**“§339. Intervening rights**

“Any proposed amended or new claim determined to be patentable and incorporated into a patent following an opposition proceeding under this chapter shall have the same effect as that specified in section 252 of this title for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything patented by such proposed amended or new claim, or who made substantial preparation therefor, before the certificate is issued under section 335 with respect to that amended or new claim.

**“§340. Relationship with reexamination proceedings**

“A patent for which an opposition proceeding has been instituted under this chapter may not thereafter be made the subject of a request under section 302 or 311 for reexamination by the same opposer or on behalf of the same real party in interest, on the same claim and on the same issue that was the basis of the opposition proceeding. An ex parte reexamination request made by a person other than the patent owner during the 9-month period specified in section 323, or an inter partes reexamination request made during the 9-month period specified in section 323, shall be treated as a request under section 321, and no ex parte reexamination or inter partes reexamination may be ordered based on such request. A request for ex parte reexamination or inter partes reexamination made after the 9-month period specified in section 323, and a request for ex parte reexamination made by the patent owner at any time, shall be stayed during the pendency of any opposition proceeding under this chapter.”.

(g) CONFORMING AMENDMENT.—The table of chapters for part III of title 35, United States Code, is amended by adding at the end the following:

“32. Post-Grant Opposition Procedures.....321”.

(h) AUTHORITY OF PANELS OF ADMINISTRATIVE PATENT JUDGES.—Section 6 is amended by inserting at the end:

“(c) ADDITIONAL RESPONSIBILITIES OF ADMINISTRATIVE PATENT JUDGES.—Panels of administrative patent judges, once assigned by the Director, shall have the responsibilities under Chapter 32 in connection with post-grant opposition proceedings.”

**SEC. 8. SUBMISSIONS BY THIRD PARTIES.**

Section 122 is amended by adding at the end the following:

“(e) PREISSUANCE SUBMISSIONS BY THIRD PARTIES.—

“(1) IN GENERAL.—Any person may submit for consideration and inclusion in the record of a patent application, any patent, published patent application or other publication of potential relevance to the examination of the application, if such submission is made in writing before the earlier of—

“(A) the date a notice of allowance under section 151 is mailed in the application for patent; or

“(B) either—

“(i) six months after the date on which the application for patent is published under section 122, or

“(ii) the date of the first rejection under section 132 of any claim by the examiner during the examination of the application for patent, whichever occurs later.

“(2) OTHER REQUIREMENTS.—Any submission under paragraph (1) shall—

“(A) set forth a concise description of the asserted relevance of each submitted document;

“(B) be accompanied by such fee as the Director may prescribe; and

“(C) include a statement by the submitter affirming that the submission was made in compliance with this section.”.

**SEC. 9. TRANSFER OF VENUE**

Section 281, as amended by Section 5, is further amended by inserting at the end the following:

“(c) **TRANSFER OF VENUE.**—A court shall grant a motion to transfer an action under subsection (a) to a judicial district or division in which the action could have been brought and that is a more appropriate forum for the action, which includes any judicial district or division where a party to the action has substantial evidence or witnesses, if—

“(1) the action was not brought in a district or division —

“(A) in which the patentee resides or maintains its principal place of business,

“(B) in which an accused infringer maintains its principal place of business, or

“(C) in the State in which an accused infringer, if a domestic corporation, is incorporated;

“(2) at the time the action was brought, neither the patentee nor an accused infringer had substantial evidence or witnesses in the judicial district in which the action was brought, and

“(3) the action has not been previously transferred under this subsection.

“(d) For purposes of this section (c), use or sale of allegedly infringing subject matter in a judicial district shall not, by itself, establish the existence of substantial evidence or witnesses in such a judicial district.”

**SEC. 10. APPLICABILITY; TRANSITIONAL PROVISIONS.**

(a) **SECTION 3.**—The amendments made by section 3 shall apply to applications for patent, and any patents issued thereon, that contain a claim to a claimed invention that has an effective filing date (as defined in section 100(h) of title 35, United States Code) that is one year or more after the date of the enactment of this Act. With respect to any patent or application for patent to which the amendments made by section 3 apply, no claim in the patent or in the application shall be entitled to an effective filing date that is before the date of the enactment of this Act.

(b) **SECTIONS 4 AND 5.**—The amendments made by sections 4 and 5 shall take effect on the date of the enactment of this Act, except that such amendments shall not apply to any action brought in any court before such date of the enactment.

(c) **SECTION 6.**—The amendments made by section 6 shall take effect on the date of the enactment of this Act, except that the amendments made by section 6(b) shall not

apply to any claimed invention with an effective filing date before such date of enactment.

(d) SECTION 7.—(1) The amendments made by subsection (a) of section 7 shall apply to applications for patent filed on or after the date of the enactment of this Act.

(2) The amendments made by subsection (b) of section 7 shall apply to patents issuing on applications filed on or after the date of the enactment of this Act.

(3) The amendment made by subsection (c) of section 7, and the provisions of subsection (e) of section 7, shall take effect on the date of enactment of this Act.

(4) The amendments made by subsection (d) of section 7 shall apply to any request made under section 311 of title 35, United States Code, on or after the date of the enactment of this Act.

(5) The amendments made by subsection (f) of section 7 shall take effect on the date of the enactment of this Act, except that—

(A) no request for institution of an opposition proceeding under chapter 32 of title 35, United States Code, may be made until—

(i) the end of the 1-year period beginning on the date of the enactment of this Act; or

(ii) such later date that the Director may establish through notice published in the Federal Register; and

(B) any such request may be made only with respect to a patent to which the amendments made by section 3 apply.

(e) SECTION 8.—The amendments made by section 8 shall take effect at the end of the 1-year period beginning on the date of the enactment of this Act.

(f) Section 9.—The amendments made by section 9 shall apply to any action filed on or after the date of the enactment of this Act.

(g) DETERMINING VALIDITY OF CLAIMS.—For the purpose of determining the validity of a claim in any patent or the patentability of any claim in a nonprovisional application for patent that is made before the effective date of the amendments made by section 3, other than in an action brought in a court before the date of the enactment of this Act—

(1) the provisions of subsections (c) and (d) of section 102 of title 35, United States Code, shall be deemed to be repealed;

(2) the provisions of sections 102(f) of title 35, United States Code, shall be deemed to be repealed and replaced by the provisions of section 101 of title 35, United States Code, as amended by section 4(a) of this Act, relating to the inventor's right to seek and obtain a patent, except that a claim in a patent that is otherwise valid shall not be invalidated by reason of this paragraph; and

(3) the term "in public use or on sale" as used in section 102(b) of title 35, United States Code, shall be deemed to exclude the use, sale, or offer for sale of any subject matter that had not become reasonably and effectively accessible to persons of ordinary skill in the art to which the subject matter pertains, as defined in the amendments made by section 3 of this Act.

(h) EFFECT OF EUROPEAN PATENT CONVENTION AND PATENT LAWS OF JAPAN.—Before the date, if ever, that the Director of the United States Patent and Trademark Office publishes a notice in the Official Gazette of the Office declaring that both the European Patent Convention and the patent laws of Japan afford inventors seeking patents a 1-year period prior to the effective filing date of a claimed invention during which disclosures made by the inventor or by others who obtained the subject matter disclosed directly or indirectly from the inventor do not constitute prior art, the term "effective filing date" as used in section 102(a)(1)(A) of title 35, United States Code, shall be construed by disregarding any right of priority under section 119 or 365 of title 35, United States Code, except that provided under section 119(e) of title 35, United States Code.

(i) ADDITIONAL TRANSITIONAL AUTHORITY OF DIRECTOR.—For a patent that issues more than one year after the date of the enactment of this Act and for which the amendments made by section 3 do not apply, the amendments made by section 7(f) shall apply to such patent, subject to the following:

(1) the Director shall establish by regulation the conditions or requirements for patentability that may be addressed in a request for opposition to such patent under chapter 32 of title 35, United States Code, provided that no such request may raise a question of patentability arising under section 102(g) of title 35, United States Code;

(2) during the period ending six years after the date of the enactment of this Act and to the extent required based upon availability of administrative patent judges within the United States Patent and Trademark Office to conduct opposition proceedings, the Director shall establish priorities for the patents that may be subject to a request for opposition under this subsection based the following criteria:

(A) the number of applications for which the patent contains a claim for benefit under section 120 of title 35, United States Code,

(B) the duration of the pendency of the patent in the United States Patent and Trademark Office prior its issuance,

(C) the patent examining group within the United States Patent and Trademark Office that was involved with the examination of the patent, and

(D) any classification of the patent under the Patent Classification System as established by the United States Patent and Trademark Office; and

(3) subject to paragraphs (1) and (2) of this subsection and provided that sufficient requests for opposition are made that the Director determines raise a substantial question of patentability, at least 100 oppositions shall be initiated during each of the second and third years after the date of enactment of this Act, and at least 400 oppositions during each of the subsequent four years.

(j) CONTINUITY OF INTENT UNDER THE CREATE ACT.—The enactment section 102(b)(3) of title 35, United States Code under Section (3)(b) of this Act is done with the same intent to promote joint research activities that was expressed, including in the legislative history, through the enactment of the Cooperative Research and Technology Enhancement Act of 2004, Pub. L. 108-453 (CREATE Act), concurrently repealed under Section 3(c)(2) of this Act. The United States Patent and Trademark Office shall administer section 102(b)(3) of title 35, United States Code, in a manner consistent with the legislative history of the CREATE Act that was relevant to its administration by the Office.