

species conservation network in the world and is one of six commissions of IUCN, the World Conservation Union. In recognition of his continuing role as mentor for young scientists and other colleagues, IUCN established a graduate student internship program named in his honor. Dr. Rabb also serves as Vice-Chair of the Chicago Council on Biodiversity, President of Chicago Wilderness Magazine Board, and Board Chair of the Illinois State Museum.

Among the many awards given to Dr. Rabb are the Peter Scott Award from the Species Survival Commission, the R. Marlin Perkins Award from the American Zoo and Aquarium Association, the Silver Medal of the Royal Zoological Society of London, the Conservation Medal from the Zoological Society of San Diego, and the Distinguished Achievement Award from the Society for Conservation Biology.

My wife and I have spent many a weekend at the Zoo with our grandchildren, and I can tell you that I am proud to have Brookfield Zoo located in my district and to have had the honor of working with George Rabb over the years. I invite my colleagues to join me in sending best wishes to the good doctor as he ventures forward on his exciting new journey.

INTRODUCTION OF THE P2P PIRACY PREVENTION ACT

HON. HOWARD L. BERMAN

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 25, 2002

Mr. BERMAN. Mr. Speaker, I rise today to introduce the P2P Piracy Prevention Act—legislation that will help stop peer-to-peer piracy.

The growth of peer-to-peer (P2P) networks has been staggering, even by Internet standards. From non-existence a few years ago, today nearly a dozen P2P networks have been deployed, a half-dozen have gained widespread acceptance, and one P2P network alone is responsible for 1.8 billion downloads each month. The steady growth in broadband access, which exponentially increases the speed, breadth, and usage of these P2P networks, indicates that P2P penetration and related downloading will continue to increase at a breakneck pace.

Unfortunately, the primary current application of P2P networks is unbridled copyright piracy. P2P downloads today consist largely of copyrighted music, and as download speeds improve, there has been a marked increase in P2P downloads of copyrighted software, games, photographs, karaoke tapes, and movies. Books, graphic designs, newspaper articles, needlepoint designs, and architectural drawings cannot be far behind. The owners and creators of these copyrighted works have not authorized their distribution through these P2P networks, and P2P distribution of this scale does not fit into any conception of fair use. Thus, there is no question that the vast majority of P2P downloads constitute copyright infringements for which the works' creators and owners receive no compensation.

The massive scale of P2P piracy and its growing breadth represents a direct threat to the livelihoods of U.S. copyright creators, including songwriters, recording artists, musicians, directors, photographers, graphic artists, journalists, novelists, and software program-

mers. It also threatens the survival of the industries in which these creators work, and the seamstresses, actors, Foley artists, carpenters, cameramen, administrative assistants, and sound engineers these industries employ. As these creators and their industries contribute greatly both to the cultural and economic vitality of the U.S., their livelihoods and survival must be protected.

Simply put, P2P piracy must be cleaned up. The question is how.

The answer appears to be a holistic approach involving a variety of components, none of which constitutes a silver bullet. Wider deployment of online services offering copyrighted works in legal, consumer-friendly ways, digital rights management technologies, lawsuits against infringers, prosecutions of egregious infringers, and technological self-help measures are all part of the solution to P2P piracy.

While Pursuit of many of these components to the P2P piracy solution requires no new legislation, I believe legislation is necessary to promote the usefulness of at least one such component. Specifically, enactment of the legislation I introduce today is necessary to enable responsible usage of technological self-help measures to stop copyright infringements on P2P networks.

Technology companies, copyright owners, and Congress are all working to develop security standards, loosely termed digital rights management (DRM) solutions, to protect copyrighted works from unauthorized reproduction, performance, and distribution. While the development and deployment of DRM solutions should be encouraged, they do not represent a complete solution to piracy. DRM solutions will not address the copyrighted works already "in the clear" on P2P networks. Additionally, DRM solutions will never be foolproof, and as each new generation of DRM solutions is cracked, the newly-unprotected copyrighted works will leak onto P2P networks. Similarly, copyrighted works cannot always be protected by DRM solutions, as they may be stolen prior to protection or when performed in the clear—for instance, when a movie is copied from the projection booth.

Shutting down all P2P systems is not a viable or desirable option for dealing with the massive copyright infringement they facilitate. While the 9th Circuit could shut Napster down because it utilized a central directory and centralized servers, the new P2P networks have increasingly engineered around that decision by incorporating varying levels of decentralization. It may be that truly decentralized P2P systems cannot be shut down, either by a court or technologically, unless the client P2P software is removed from each and every file trader's computer.

As important, P2P represents an efficient method of information transfer and supports a variety of legitimate business models. Removal of all P2P networks would stifle innovation. P2P networks must be cleaned up, not cleared out.

Copyright infringement lawsuits against infringing P2P users have a role to play, but are not viable or socially desirable options for addressing all P2P piracy. The costs of an all out litigation approach would be staggering for all parties. Copyright owners would incur overwhelming litigation expenses, other-wise-innocent P2P users would undoubtedly experience privacy violations, internet service providers

and other intermediaries would experience high compliance costs, and an already overcrowded federal court system would face further strain. Further, the astounding speed with which copyrighted works are spread over P2P networks, and thus their immediate ubiquity on millions of computers, renders almost totally ineffective litigation against individual P2P users. Certainly, a suit against an individual P2P user will almost never result in recovery of sufficient damages to compensate for the damage caused.

In short, the costs of a litigation approach are likely to far outweigh the potential benefits. While litigation against the more egregious P2P pirates surely has a role, litigation alone should not be relied on to clean up P2P piracy.

One approach that has not been adequately explored is to allow technological solutions to address technological problems. Technological innovation, as represented by the creation of P2P networks and their subsequent decentralization, has been harnessed to facilitate massive P2P piracy. It is worth exploring, therefore, whether other technological innovations could be harnessed to combat this massive P2P piracy problem. Copyright owners could, at least conceptually, employ a variety of technological tools to prevent the illegal distribution of copyrighted works over a P2P network. Using interdiction, decoys, redirection, file-blocking, spoofs, or other technological tools, technology can help prevent P2P piracy.

There is nothing revolutionary about property owners using self-help—technological or otherwise—to secure or repossess their property. Satellite companies periodically use electronic countermeasures to stop the theft of their signals and programming. Car dealers repossess cars when the payments go unpaid. Software companies employ a variety of technologies to make software non-functional if license terms are violated.

However, in the context of P2P networks, technological self-help measures may not be legal due to a variety of state and federal statutes, including the Computer Fraud and Abuse Act of 1986. In other words, while P2P technology is free to innovate new, more efficient methods of P2P distribution that further exacerbate the piracy problem, copyright owners are not equally free to craft technological responses to P2P piracy.

Through the legislation I introduce today, Congress can free copyright creators and owners to develop technological tools to protect themselves against P2P piracy. The proposed legislation creates a safe harbor from liability so that copyright owners may use technological means to prevent the unauthorized distribution of that owner's copyrighted works via a P2P network.

This legislation is narrowly crafted, with strict bounds on acceptable behavior by the copyright owner. For instance, the legislation would not allow a copyright owner to plant a virus on a P2P user's computer, or otherwise remove, corrupt, or alter any files or data on the P2P user's computer.

The legislation provides a variety of remedies if the self-help measures taken by a copyright owner exceed the limits of the safe harbor. If such actions would have been illegal in the absence of the safe harbor, the copyright owner remains subject to the full range of liability that existed under prior law. If a copyright owner has engaged in abusive interdiction activities, an affected P2P user can file

suit for economic costs and attorney's fees under a new cause of action. Finally, the U.S. Attorney General can seek an injunction prohibiting a copyright owner from utilizing the safe harbor if there is a pattern of abusive interdiction activities.

This legislation does not impact in any way a person who is making a fair use of a copyrighted work, or who is otherwise using, storing, and copying copyrighted works in a lawful fashion. Because its scope is limited to unauthorized distribution, display, performance or reproduction of copyrighted works on publicly accessible P2P systems, the legislation only authorizes self-help measures taken to deal with clear copyright infringements. Thus, the legislation does not authorize any interdiction actions to stop fair or authorized uses of copyrighted works on decentralized, peer-to-peer systems, or any interdiction of public domain works. Further, the legislation doesn't even authorize self-help measures taken to address copyright infringements outside of the decentralized, P2P environment.

This proposed legislation has a neutral, if not positive, net effect on privacy rights. First, a P2P user does not have an expectation of privacy in computer files that she makes publicly accessible through a P2P file-sharing network—just as a person who places an advertisement in a newspaper cannot expect to keep that information confidential. It is important to emphasize that a P2P user must first actively decide to make a copyrighted work available to the world, or to send a worldwide request for a file, before any P2P interdiction would be countenanced by the legislation. Most importantly, unlike in a copyright infringement lawsuit, interdiction technologies do not require the copyright owner to know who is infringing the copyright. Interdiction technologies only require that the copyright owner know where the file is located or between which computers a transmission is occurring.

No legislation can eradicate the problem of peer-to-peer piracy. However, enabling copyright creators to take action to prevent an infringing file from being shared via P2P is an important first step toward a solution. Through this legislation, Congress can help the marketplace more effectively manage the problems associated with P2P file trading without interfering with the system itself.

PAYING TRIBUTE TO RACHEL
HENNING

HON. SCOTT McINNIS

OF COLORADO

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 25, 2002

Mr. McINNIS. Mr. Speaker, I would like to take this opportunity to pay tribute to an individual whose pioneering efforts in the business market have led to numerous innovations. Rachel Henning is a trailblazer in technology that contributed to bolster the Denver economy. It is with much admiration that I pay tribute to and exemplary citizen of the State of Colorado.

Rachel Henning is the founder and creator of Catalyst Search. Her cost effective staffing resource, provides businesses with the tools they need to survive in today's business market. Her initial idea to create a successful recruiting and consulting firm has become a re-

ality and expanded to Denver, Colorado and the surrounding area. Anchored in Colorado, Catalyst Search acts as a pioneer of this 21st century providing clients the convenience and expertise necessary to compete.

Rachel's hard work and determination, has built a great company worthy of admiration. As an active member of the Internet, Colorado, and Women's Chamber of Commerce, Rachel provides each organization with leadership and stability. She has contributed much time and effort to the civic and business communities in which she spends her time.

Mr. Speaker, it is an honor and a pleasure to applaud the diligent efforts of Rachel Henning and I am honored to congratulate her before this body of Congress and this Nation. I believe her aspirations will grow into a very prosperous career as a business leader, and her diligence and commitment deserve our praise and I am honored to pay tribute to her today. Good luck to you, Rachel, in all your future endeavors.

COMMEMORATE A UNIQUE AND
MAGNIFICANT GROUP OF AVI-
ATORS

HON. RON PAUL

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 25, 2002

Mr. PAUL. Mr. Speaker, today I am pleased to commemorate a unique and magnificent group of old aviators who have received very little publicity in the civilian sector. They will celebrate their 90th and 60th anniversaries in conjunction with the Commemorative Air Force (CAF) "Wings Over Houston" Air Show from October 23–26, 2002, in Houston, Texas.

The first Enlisted Pilot, Vernon L. Burge, earned his wings in the old Signal Corps in 1912. Prior to World War 11, 282 enlisted pilots served in the Signal Corps, then in the Army Air Service and later in the Army Air Corps as rated pilots. Many flew the Air Mail during the early 1930s of the Roosevelt Administration.

With the approach of WWII, aircraft manufacturers were producing aircraft faster than the Air Corps could fill with pilots. To qualify for Flight Training, a cadet was required to have two years of college. To fill this shortage of pilots, Congress enacted legislation in 1941 authorizing enlisted men to participate in aerial flight.

To qualify for Pilot Training, the enlisted men had to meet several stringent requirements. They had to be enlisted in the regular Army, not drafted, possess a high-school diploma, pass a rigid physical exam, and sign a contract with the Army avowing that upon completion of Flight Training, they would continue serving in the Army Air Corps as Staff Sergeant Pilots for three years, as Technical Sergeant Pilots for three years, as Master Sergeants for three years, and end the contract as Warrant Officer Pilots.

The Enlisted Pilots (aviation students) attended the same ground schools, same flying schools, had the same flight instructors, same training airplanes, and successfully completed the same curriculum as the Aviation Cadets.

Almost 2,500 enlisted men graduated as Enlisted Pilots from Ellington, Kelly, Luke, Mather, Columbus, Dothan, Lubbock, Moody,

Roswell, Spencer, Turner, Victorville, Williams, Craig and Stockton Air Bases in Classes 42–C through 42–J, the last class of Enlisted Pilots.

Upon graduation, and ordered to participate in Aerial Flight by General "Hap" Arnold, Chief of the Army Air Corps, these pilots flew Douglas A–20s, Curtis P–36s and P–40s, Lockheed P–38s, North American P–64s, Douglas C–47s, C–48s, C–49s, C–53s. They flew many of these aircraft in combat as Staff Sergeant Pilots. Later, as officers, they flew all of the aircraft in the Air Force inventory during and after WWII.

The Flight Training of Aviation Students Program was discontinued in November 1942, with enlisted men graduating as Flight Officers in following classes.

Charles "Chuck" Yeager, the first pilot to exceed the speed of sound, completed his flight training as an enlisted man but graduated as a Flight Officer in December 1942. Bob Hoover, the world renowned military and civilian acrobatic pilot was an Enlisted Pilot. Walter H. Beech served as an Enlisted Pilot in 1919 and later founded the Beech Aircraft Company in Wichita, Kansas.

The Air Force honors the third Enlisted Pilot, William C. Ocker, for pioneering instrument flying by naming the Instrument Flight Center at Randolph AFB in his memory.

Captain Claire Chennault organized a flight demonstration team at Maxwell Air Field in 1932, called the "Men on the Flying Trapeze" (the forerunner of the Thunderbirds), which at one time included two Enlisted Pilots, Sergeant William C. McDonald and Sergeant John H. Williamson. Staff Sergeant Ray Clinton flew solo stunt and backup for the team.

The Enlisted Pilots' accomplishments are many and their legend is a long one of dedication and patriotism. Seventeen became Fighter Pilot Aces and thirteen became General Officers. They pioneered many air routes throughout the world. After release from active duty, they became airline pilots, airline union heads, corporate executives, bank presidents, teachers, doctors, manufacturers of racing cars, corporate aviation department heads, and much, much more.

Of the almost 3,000 American Enlisted Pilots from 1912 through 1942, approximately 600 remain. They are a terminal organization—most of them are in their early eighties.

According to retired USAF General Edwin F. Wenglar, chairman of the Grand Muster Reunion, 75 to 100 of these grand Airmen will be able to attend their reunion, which could very well be the last gathering of the finest and most magnificent aviators in the annals of aviation history.

RECOGNIZING ARMOND MORRIS AS
THE LANCASTER SUNBELT EXPO
SOUTHEASTERN FARMER OF
THE YEAR FOR GEORGIA

HON. SAXBY CHAMBLISS

OF GEORGIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, July 25, 2002

Mr. CHAMBLISS. Mr. Speaker, I would like to recognize and congratulate Armond Morris, of Ocilla, for his recent selection as Georgia's Lancaster Sunbelt Expo Southeastern Farmer of the Year. Armond has farmed in South