

Wildlife Enforcement Officers Use of the Internet

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Abstract: The Internet has become a global communication tool with immense potential. The power and capabilities of the Internet are now available and being used by the wildlife law enforcement officers of the world. Wildlife law enforcement personnel can share information and cooperate in interstate investigations. Features such as a Game Warden List help individuals keep in touch and discuss issues among themselves. The Game Warden's Place website offers a number of services useful to the profession, including links to other sites. Wildlife agencies and personnel can and should use this new technology to its fullest potential as they enter the 21st century.

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The Internet is simply one computer talking to another computer over a telephone line. In its more complex form, it has the ability to send and receive information from a laptop and cell phone even while you drive in your car. It could be a very important report you need to send or receive. It could be a multimedia birthday card to your child, complete with a video and voice message that you recorded a few seconds earlier. It could even be color photos of a boating accident you are investigating and forwarding to your central office.

The Internet can be confusing to the uninitiated. How do I get my computer to talk to another computer? Basically, the Internet is made up of several thousand computers scattered around the world that are called servers. There are millions of people worldwide who have Internet access to thousands of Internet servers. The majority of these computers and people hooked up to the Internet are in the United States. Servers make up the true heart of the Internet. A server is a system to which everyone connects for online or Internet service. Located on these servers are all electronic mail (e-mail), material and data available on the World Wide Web (www) waiting to be accessed with your computer. You acquire this material by going through an Internet Service Provider (ISP) to get onto the Internet.

An ISP can be an individual, a commercial establishment, or even a government agency. Most government wildlife agencies use an internal government Internet or Internet server. Individual wildlife officers, for the most part, use their own personal

Internet accounts. A growing number of wildlife agencies are making e-mail available to their field personnel as a way to facilitate communication, however. Agency-provided Internet accesses usually only support e-mail capability. Although provided this way is meant usually only for internal purposes, it can still be forwarded to anyone on the Internet.

The primary drawback to agency-provided Internet access is that the field officer must often make a long distance call to access the agency server, increasing costs. As local ISPs and new technologies expand more cost efficient alternatives should become available.

E-Mail

E-mail is the single most widely used attribute of the Internet. Using e-mail is similar to sending a letter through the postal service or leaving a message on a telephone answering machine. With e-mail, you use your computer to type a letter and your modem to call up a mail server that is part of your ISP's system. The server, through prior programming, will authorize you to do this. The mail server will then receive a copy of the message you are sending and forward it to the server that is part of the e-mail address that you specified. Using the e-mail address `decoydoc@hci.net` as an example, the address can be broken down as follows: `decoydoc` is the individual account or person to whom the mail is addressed. The portion of the address following "@" is the server network that provides "decoydoc" with e-mail. After being forwarded to the proper "mail box," the message is then stored in the recipient's folder within that server until that person goes online and accesses the e-mail account. The message is then downloaded onto his computer and can be printed out. Other capabilities of e-mail include the ability to send files or programs, complete with digital pictures, anywhere on earth, for free.

The World Wide Web

The World Wide Web is the second most used aspect of the Internet and the part that most people think of in connection to the Internet. The "www" or "w3," as it is commonly referred to, is an immense collection of data stored on the many thousands of computer servers that make up the Internet. Other Internet users simply go online and access this data by going to a specific Universal Recognized Language (URL) address. The address always begins with `http://www`. This signals the web browser program that it is looking for a HyperText Transfer Protocol (http) document somewhere on the World Wide Web. The portion of the address "`hci.net`," as in `http://www/hci.net` tells the Internet browser to go to the network domain (or net) and to locate the server domain name "hci." In this case it would be the Internet Service Provider of "Harbour Communications, Inc.," which is my ISP located in Morganton, North Carolina.

If we added "`/decoydoc`" to the end of this Internet address, we would then go specifically to the folder called "decoydoc" that resides within the web server that

makes up "Harbour Communications, Inc." If there is a file with the extension of Hyper-Text-Markup-Language (HTML) named "index.html," we would open an Internet document called a "web page."

By opening up this web page, we could then view whatever the author, or "webmaster," of this document, or site, had placed on it. The computer code work to make this material visible over the Internet for the web browser to receive and view the web site is called HTML. A webmaster is someone who writes or oversees the construction of HTML documents so that they can be accessed over the Internet. There is almost no limit to what types of material can be distributed over the Internet. With the advancement of Internet Web browsers and HTML code, a whole new communications tool has now been opened to the world. Wildlife agencies and other organizations worldwide have recognized this new potential and have only recently begun utilizing some of its capabilities.

Getting Started

To start using this new communications tool, you will need to have a computer, a modem, a web browser/Internet service, and a communications program that allows your equipment to connect to the Internet. The computer can be either an IBM compatible model or a Macintosh. For optimum performance, it should be of at least 486 MHz speed or faster and have a monitor capable of displaying a minimum of 256 colors. Although not required, a sound card with speakers is recommended since both the Internet and e-mail are becoming enriched with sound and are capable of delivering information audibly. The majority of today's computer are equipped with a 33,600 BPS modem, models with a 56,000 BPS modem are appearing on the market with upgrades available for older computer models. The faster speed modem is increasing in popularity. Some telephone companies, such as AT&T and MCI, now support the faster modem. Both companies also offer Internet connection to consumers. An advantage to the large commercial Internet providers such as America On-Line, Microsoft Network, CompuServe, and others is the ability to access the Internet while traveling or from telephones other than the one you normally use with your computer if it is a laptop model. Local and toll-free telephone access numbers are usually available from major Internet providers for customer convenience.

Game Wardens on the Internet

The very nature of a good wildlife law enforcement officer is to seek, discover, implement, and innovate new ideas and methods to enhance his ability and productivity. In the past 2 years, a handful of officers from around the world have learned how to put the power of the Internet to use as the wildlife law enforcement tool for the upcoming millennium.

The Internet has existed for several years; however, it has only been within the past 2 or 3 years that a significant number of wildlife law enforcement personnel have been logging on line in a significant way. I went online with the Internet in December

1996. It was my own personal account and sideline hobby. For the next 7 months, I spent much of my time studying the various aspects of the Internet. In doing so, I began to visualize a possible use of the Internet for wildlife law enforcement officers.

In August 1997, I sent faxes to wildlife law enforcement offices in approximately 20 states. In the fax, I identified myself and described how I was setting up an e-mail list-serve, an automated list of e-mail addresses, for wildlife law enforcement officers worldwide. The list-serve connects any active and/or retired wildlife law enforcement personnel electronically. It is a free service, and officers can join or leave by simply notifying me by e-mail. They are able to access and communicate with other wildlife law enforcement personnel almost instantly on a global scale.

In the beginning the replies were very slow. The first was from an officer in the state of Washington. Some officers were cautious and suspicious of my motives and what the list, which I dubbed the Game Warden List, was all about. As the number of member officers began to increase, word of the program began to spread. The next big push was when an announcement and description of the service was published in the *International Game Warden Magazine* (Anon. 1997).

Soon officers from Canada joined, as did several from Australia. By 1 May 1998, 600 officers had joined the game Warden List. The list has members from 48 states, all but 1 of the Canadian provinces, Australia, New Zealand, Italy, and England. Although most officers are using the list through their personal Internet accounts, several states have recognized the value of the service and are allowing their officers its use through agency Internet access.

The Game warden list has proven itself to be a very valuable tool for the average officer in the field as well as for agencies as a whole. It has even become a tremendous morale booster for many officers by allowing for a new method to communicate not only with their own local officers but also with officers from around the world. The Game Warden List has already aided in very positive ways with the membership responding to several major items. One item was the recent decision of the Canadian Province of Saskatchewan to finally allow their officers to carry a service firearm. A large e-mail campaign by the membership of the Game Warden List in support of their fellow officers was launched in 1997. Shortly thereafter the Saskatchewan government decided to allow their wildlife officers this much-needed benefit.

On a sadder note, the Game Warden List has also been able to keep up with and follow along as officers or their family members have fallen victim to the perils of life and the job. As a result of the list, thousands of officers around the world are now finding out about those tragedies almost instantly. This has brought officers closer together than they ever thought possible. Many officers or family members have received phone calls, e-mailed messages, card, and even visits or monetary support from officers that they never before knew existed.

As another example, the State of Washington has been considering laying off or even dismissing several of its officers for budget-cutting reasons. The Game Warden List immediately launched a campaign of support for fellow officers to the Governor of Washington seeking his assistance and intervention in this matter.

The Game Warden List has been invaluable in completing surveys and disseminating information related to both law enforcement and agency issues and programs. The membership is quickly learning that if you have a question you need answered, just put it out on the list. Often within hours you will have the answer. The response by the representatives from almost every recognized wildlife agency in the world is often amazing through this new medium. Many testimonials have reached my desk about how enjoyable, enlightening, and beneficial the Game Warden List has become.

A good case-in-point is Iowa officer and writer Bob Mullens who recently put together 600-page "Warden Tips" manuscript that was submitted to the North American Wildlife Enforcement Officers Association (NAWEOA). According to Officer Mullens, "this project was almost entirely put together by information that officers around the world sent in over the Game Warden List and would not have happened without it." The manual is now being edited by NAWEOA for printing and distribution.

The e-mail list has even become a way to meet new officer friends. Several trips and get-togethers with officers that before were unknown to each other have occurred. The e-mail list is becoming a favorite story exchange arena as well as being the medium to pull out unrecognized talents of job-related poetry and short stories among wildlife enforcement officers.

Four months after the Game Warden E-mail List-Serve began, I moved into the second phase of my Internet project. On 3 January 1997 the Game Warden's Place (<http://www.hci.net/~decoydoc>) web site was launched. The goal of the Game Warden's Place was to have the premiere web site for wildlife enforcement-related material. The web site would be made for and by wildlife officers and would be a place for officers and the general public to go to find information relating to our work that they might not find anywhere else.

Less than a year and a half later, that goal has become a reality. By mid-1998, the web site had been visited over 10,000 times, with the visitor-per-day rate climbing. The web site provides up-to-date information on meetings, training classes, and seminars. It has frequently updated web links to all the official governmental agencies of North America at 1 location. It provides interactive slide shows of North America's wildlife for both young and old alike. It provides information for various wildlife officer-related periodicals and associations with printable order forms. It provides an equal opportunity for all wildlife officers to submit articles and information for the Internet that might not be available to them any other way.

It even allows the officer to go shopping at the Game Warden's Store. Here an ever-growing supply of unique items and vendor services that are useful for wildlife law enforcement work can be found at one location. Some of the items or services are even offered by various wildlife officers themselves.

In a new and unforeseen benefit of the Internet, officers worldwide have allowed me to put together a Game Warden Travel Section on the web site. We now have a very large directory-type web site that contains a list of officers volunteering their time, knowledge, and even room and board to fellow officers who are travelling

and on vacation in their location. This Internet location address is only available to members of the Game Warden List-Serve and is not available to the public. Furthermore, the address can be changed within seconds for added security.

Soon after the Game Warden Place web site was launched, Pennsylvania Officer Ed Shutter set up and launched the first Game Warden Internet Relay Chat (IRC) channel. On the chat channel, officers from around the globe are able to connect and communicate with each other simultaneously. Several dozen officers are able to have real-time conversations by typing a question or comment into a chat program and then seeing the reply from other officers almost instantly. This is done in a regularly-scheduled format and at a predetermined time and day of the week for the chats. This is done over a regular Internet connection and is also free.

In winter 1997, Canada's North West Territories Officer Raymond Bourget challenged the membership of the Game Warden List to start a Christian Fellowship Group. Soon approximately 3 dozen or so officers were participating in the Christian Fellowship e-mail list, a list-serve separate from the Game Warden List. Shortly thereafter I began the administration of the Christian Game Warden Support Group (CGWSG) e-mail list-serve. Soon after that, we set up the CGWSG web site as well as our own Internet chat channel. We now have a membership of 60 officers who have been called upon many times for both spiritual and emotional support.

As a result of this tremendous growth of wildlife officers on the Internet, several wildlife officer agency associations have created their own association web sites. Pennsylvania Officer Steven Spangler with the Conservation Officers of Pennsylvania Association (COPA) and Officer Rick Webb with the Washington State Officers Association are just a couple of the dozen or more wildlife officer-generated web sites.

The Future

The future for Wildlife officers on the Internet in my eyes looks very bright. I see many more officers globally being connected to the Game Warden E-mail List-Serve, with as many as 1,000 members by the end of 1998 alone.

I see many new features being added to the Game Warden' Place web site for the officer as well as the public. Already in the developmental stages are officer-accessible-only web pages in which the officer will be able to view detailed videos and diagrams of how to build and maintain various decoy-related tools. These should be available before the end of the year. In short, there really is no limit to what can be done.

In the broader picture, I see the Internet aiding the officer and his agency the most. An officer will have the ability to send and retrieve instantly the various kinds of reports and files he uses. It will give the officer access to vast database information sources as well. I see the officer in the field being able to send photos of work-related scenes back to his supervisors or central office instantly for immediate discussion and decision-making applications. In the not-too-distant future, I see a whole network of wildlife agencies connected, collaborating, and sharing information and data

in seconds instead of months. This technology is here and now is the time to start using it. If a small group of wildlife officers can do it with their household computer devices, imagine what a group of agencies could do together.

Literature Cited

Anonymous. 1997. Game warden place web site. Internet. Game Warden Mag. 1997:10.