Before The President's Commission on the United States Postal Service

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Good Morning/Afternoon:

My name is Maynard H. Benjamin and I have the honor of representing the Intelligent Document Task Force and the Envelope Manufacturers Association and Foundation today. As you may not be aware of our task force, I thought I would give you a brief introduction to our work.

The Intelligent Document Task Force was formed in the spring of 1997 as a joint project between the United States Postal Service and private industry to conduct a scan of technologies that could make the mail more information rich. Our vision is a seamless interface between the tree and the mailbox and our goal is to identify technologies that can facilitate this vision. There are 12 members of this task force: six are from the Postal Service and six from private industry. The six from the Postal Service are from the disciplines of engineering, legal, marketing, technology--both overall technology and metering, and we have a representative from the Postal Inspection Service to deal with security technology issues. On the industry side, we have engineers and scientists from the following companies: Escher Laboratories, Glatfelter, International Paper, MeadWestvaco Corporation, Pitney Bowes and Williamhouse, Inc., as well as myself representing the envelope manufacturing industry. This model of a cross functional/industry/federal partnership has worked well. It is very cost-effective and it has produced some interesting technologies for the USPS to consider, as you will shortly see.

So far, we have reviewed the ongoing work at the following labs and universities: Bell & Howell Engineering, Dow Labs, Eastman-Kodak Labs, Escher Labs, Flint Research, Hewlett-Packard Labs, IBM Labs and High-Speed Printing Center, International Paper Corporate Research, MIT Media Lab, Motorola Bistatics, Pitney Bowes Research, Sandia National Lab, Scitex, Inc., and several other smaller technology companies. We have produced two reports on our findings and both have been submitted to the Commission for review. Our third and final report will be out later this year and we will provide the Commission a copy when that report is released. All of this effort and information has cost the Postal Service and private industry less than $100,000 -- not million, but thousand. It is one of the few cross-functional, joint government private industry ventures with this return on the dollar and we are all very proud of what we have accomplished.

Let me briefly show you just four technologies which we believe have great promise in making the mail more intelligent:

Technology 1 – Add more Value to the Barcode

The USPS has moved forward into this new technology by endorsing the concept of an intelligent envelope having an information-rich symbology. Personal postage was rolled out several years ago in the form of a PDF 417 two-dimensional indicia that the USPS chose to use as an alternative to the adhesive postage stamp. The indicia uses a checkerboard pattern to encode various data elements including source, date and amount. It was chosen for its ability to protect postage and identify the purchaser of the postage. Each PDF 417 personal postage stamp is unique and different and can be produced in your home in lieu of going to your local post office. Several companies, including Neopost, Pitney Bowes and Stamps.Com have applications using this technology, but so far, the technology has not met with widespread home

market acceptance. I might add that many states are now using two-dimensional barcodes that are on the back of your driver's license.

The USPS has also enhanced the POSTNET barcode through the CONFIRM system that provides the ability for mailers to track and trace commercial mail. This technology simply uses the platform of POSTNET to build an enhanced numerical set that gives you the ability to identify an existing piece of mail and trace and track it through the system. Developments in this area continue with the USPS moving toward consolidating the number of barcodes used on a mailpiece through a universal barcode system. This effort is just beginning.

Technology 2 – RFID or Radio Frequency Identification

Radio Frequency Identification has been around for a long time. Today, if you buy a CD or some electronic products, you know they have not neutralized the RFID chip when you walk out of the store and the security system activates. In Britain, if you try to walk out of a supermarket with a Gillette razor, the chip in the package of razors will go off. If you use EZPass on the highway, you are using RFID.

The video clip that I am showing you uses RFID or Radio Frequency Identification to create a mailpiece that will actually serve as a pointer to an Internet site. Simply by touching a screen or even using a barcode, we can create a pointer or look-up for a Web site. Why use this? The sheer volume of Internet sites will shortly exhaust our availability of URLs or Internet addresses. We need to create sub-addresses and documents that serve as pointers. RFID could be a candidate technology to accomplish this. RFID can be used to track mail pallets or containers of mail, but there are some impediments right now.

The primary barriers to RFID are cost and robustness of this technology. Right now, it is very difficult to get the cost of the chip used in RFID below 25 cents. A number of companies are working on it and have had some very good experiments with printable RFID. The Auto-ID Consortium at the MIT Media Lab is pledged to bringing the cost below one penny. When it does, mailpieces can use RFID. I believe this point is three years away.

Technology 3 – Fiber Fingerprinting and Imbedding Data

If there had been a stamp on the printed stamp envelope that a person bought to transmit anthrax through the mail in October 2001, we would have had a much easier time identifying where the mail had come from and the path it went through to delivery. We did identify that path through the excellent forensics of the Postal Inspection Service, but the experience pointed out the need for reducing anonymous mail. The reason that FedEx and UPS had just limited problems with false anthrax attacks was their ability to track and trace every shipment. Now, it is easy to do this in the millions – it's very tough in the billions, but it can be done.

The USPS owns one of the largest art collections in the world, the images of our postage stamps. Yet, a stamp image is only used for a short period of time. These adhesive postage stamps are printed using analog processes and the only tracking or tracing information we can place on them is a chemical tag that is fluorescent ink. If we would produce digitally printed postage, we could imbed more information that would make the mail more functional and we could also secure the mail at the same time. Using both imbedded printing and a device called a fiber fingerprint, each mailpiece would be unique and users could have a choice in the images they use. Let me show you what I mean.

Technology 4 – Postal Portal

The Postal Service has an important place in making our future communications marketplace more efficient and secure. Today, the Internet is the Wild West of the 1870s. By design there are few rules and it is a buyer beware market. The Internet is growing and maturing and adopting new features that will gradually make it a safer and more secure place to operate. The Postal Service has an important role in this new communications marketplace because it sits at the crossroads between the paper-based world and the electronic world. It also has a trusted brand and it has people who are in every neighborhood every day.

A U.S. Postal Portal could be made part of a home computer system as an application that would put the postal customer in charge of his/her communications needs. Here is one example. The portal would manage incoming electronic and physical communication. The consumer could screen out spam, manage electronic transactions, communicate electronically with the USPS concerning delivery preferences and also be knowledgeable about the physical documents and packages being delivered. If a consumer was not home, his package could be redirected to a 24-hour drop box in a local convenience store with a unique code known to the consumer instead of the consumer having to go to a local post office or the Postal Service having to attempt redelivery. Stamps and mailing supplies could be ordered online.

The USPS already has some of this on their existing Web site, but I am talking about something that is much more customer specific, tailored, and useful than the mix of services that are available today.

The challenges to implementing this new technology:

1. The Postal Service's financial problems of the last four years have meant that capital spending has had to be cut back significantly. Unless there is an immediate operational return, more than likely a project will not move forward. In addition, the USPS has placed a great deal of capital investment into creating an infrastructure to move the mail more efficiently. New wide field of view cameras on mail processing equipment can read more information, but you also need software that supports those cameras, training for staff and many downstream processes that have to be changed. All of this requires more money, which is in short supply for anything other than moving the mail right now. We should be considering new business models, such as fee for service models where vendors purchase the capital equipment and return a usage fee to the USPS rather than the USPS putting out all of the funds. Joint risk taking should be encouraged, not discouraged.

2. The USPS still has a problem gaining input from customers and driving its technology developments from the customer back. For example, when PC Postage was created, there was a very expensive and drawn out process to work on requirements to qualify vendors as providers, but very limited work done on customer expectations. As a result, we have a process that does deploy the technology and there are qualified vendors. But how come so few vendors qualify and so few customers want to use PC Postage? Is it because the system is too cumbersome for the customer to use? We have got to stop over-regulating technology or we will be constantly missing the customer's expectations. The customer of the Postal Service is the end user, the person or business that uses metering technology; it is not the intermediary, the metering company.

3. Too many technologies that are developed by the USPS look for customers rather than customers or users defining the technology that they need. In the mid-1990s the USPS was experimenting with a product called hybrid mail. It invested a great deal of

money to make hybrid mail work and had a wide variety of experiments with hybrid mail. Unfortunately, hybrid mail never took off quickly. It ended up being a niche market and international agreements limited its success. The USPS did not do an adequate job in getting customer input on this product before it came out with hybrid mail. Private technology companies spend a great deal of time with focus groups that try a great number of ideas before they launch them. I participated on one panel to evaluate a new type of printer that would bind and print. That product never made it to the market because the customer panel nixed many of its features during the focus analysis. As a result, the company did not spend viable capital developing a product that the customer did not find interesting or easy to use. Maybe we should consider the same.

4. The process of engaging private industry in technological developments needs to be improved. Many companies have a difficult time talking to the USPS about their new ideas because intellectual property issues get in the way. I am convinced that the reason the Intelligent Document Task Force has been successful is that we all signed blanket waivers indicating that whatever we saw in our reviews could not become a part of our own offerings. At the same time, companies were also given coverage for legitimate developments that they had created. We don't have a good universal intellectual property management system at the USPS and we need one. Let us find a way to free up our intellectual resources to build a stronger mailing system.

5. We need to continue to promote a private public sector partnership on new technology by creating a permanent technology council to advise the USPS on new developments. We must create better "bang for the buck" technologies and ensure that consumer input is evident in anything we do. Let's stop looking for customers for technological developments that we have made and start looking to customers to tell

us what they want that facilitates their communications needs. We need to start listening to the workers on the floor of the postal plants about the technology they need to help them work smarter rather than giving them something developed by the engineers that does not really add much enhanced value. More periodic reviews need to be made. We need to ask more questions about the "bang for the buck" and customer focus.

6. We also need a more viable process that avoids bid protests and counter suits where the government and the USPS must spend time and dollars defending their decisions and/or settling vendor claims. If it is procured correctly the first time around, why should there be protests that end up in recoverable damages? We need a closer examination of what we are doing in procuring new technology and ensure that we are following accepted federal practices.

There are many more ideas that we have circulated in our two reports from the task force that have already been provided to the Commission. I will be happy to address any further questions you might have.

Thank you