

To automate tomorrow's mail

Post Office critics agree on the need for automation, but not on a Government-owned corporation for bringing it in

by John Van Deventer

The United States Post Office takes longer to get the mail delivered than the postal service of just about any other advanced country, and loses over \$1 billion a year doing it.

The basic problem of the Post Office, according to a bulky report issued by the President's Commission on Postal Reorganization, is that it has failed to modernize its plant and equipment over the years. The report blames Congress and recommends taking the Post Office out of Congressional control and turning it into a Government-owned corporation.

The proposed corporation would be authorized to issue bonds to finance capital equipment—instead of going through the Congressional appropriations process. Presumably this would bring mechanization to the Post Office more rapidly. The report predicts that instead of mounting deficits (currently \$1.7 billion a year), the Post Office would break even within several years after the formation of such a corporation, primarily through rapid mechanization and automation, which would reduce operating costs, and also by increasing revenue through higher rates for second-class mail.

A committee headed by Postmaster General W. Marvin Watson is currently studying the report, but Administration recommendations may be a long time coming, and longer awaiting Congressional approval.

Representative Tom Steed (D-Okla.), chairman of the House Post Office subcommittee predicts that Congress will study the report for some time before turning the Post Office into a corporation free of Congressional control, and Steed's senior staff member, Tex Gonnels, expresses skepticism over whether the reorganization will in fact create a modern postal system.

"It's questionable," he says, "whether a corporation could in fact bring mechanization to the Post Office any faster than the present setup. After all, the R&D budget at the Post Office has been almost doubling every year for the past few years. That's about as fast as you can bring mechanization to the Post Office."

And in a move that sidesteps the report's major recommendation, Senator

Mike Monroney (D-Okla.) has introduced legislation that would allow the Post Office Department to issue bonds on the market to raise money for capital equipment improvements, but from its present position as a cabinet-level department of Government.

Objections to the Monroney approach have come from Frederick R. Kappel, head of the commission that made the report and former chairman of the board of AT&T. "This approach is wrong," he says. "It misses the whole point of the report."

Kappel wants to run the Post Office as a business, and has support from inside the Post Office, if not from Congressmen.



he and Kappel want to accelerate.

The long-range objective: next day delivery of preferential mail posted anywhere in the United States. But to achieve it, Packer points out, the Post Office now spends only .01 percent of earnings on research and development, against an average of 3.0 percent in industry.

The mechanization (a term the Post Office prefers to automation) going on revolves around two basic facts of mail life.

- Eighty percent of all mail is letter mail.

- Less than a penny of the six cents for a letter stamp goes for transporting the letter outside the Post Office,



UPI/Post Office

The postal clerk is being replaced by the scanning-sorting machine.

"The only way to run the Post Office like a business is to remove it as much as possible from Congressional control," says Assistant Postmaster General Dr. Leo S. Packer, who spent all of his working life in industry before joining the Post Office two years ago to head the bureau of research and engineering.

The outcome of the controversy will affect the rate of automation, not its existence. Packer's group, within the confines of a severely limited research and development budget (\$18 million last year) already is embarked on a major mechanization program, which

while the rest is eaten up by processing of the letter within the Post Office.

Letter mail processing, then, is receiving the most mechanization effort. It consists of culling (separating of letters from other mail), facing (turning addresses right side up), cancelling (the stamp), sorting (dividing mail into destination piles), sacking and dispatching.

At present, the department culls the mail manually. Under test is a mechanized system that takes all incoming mail, segregates it by physical characteristics, and feeds letter mail into the facing machines. Culled letter mail is

7 september 1968/vol. 94/science news/245

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. . . automation

presently fed via conveyor belt into facing and canceling machines. Under development is a fluidic transport belt to replace the conveyor belt. The fluidic belt is a stream of high-speed air, on which the mail rides from the culling station into the facing and canceling machines at a much faster flow rate than is possible with conveyor belts.

Also under development is a canceling machine that sprays a jet of ink at a stamp to cancel it, and thus avoids physical contact with the letter. This will prevent another problem: breakage among canceling dies when letters containing a solid object are canceled. Concurrent with this is the development of detection and extraction devices for removing mail containing solid objects (metal, plastic, glass, wood, bottle caps, coins, pens, etc.) before the mail enters the canceling machine.

Some 60 percent of all letter mail is business mail that has already been culled, faced and canceled, and is ready to be fed directly into sorting machines. For this reason, and also because sorting is the greatest expense in processing letter mail, the sorting process is receiving more attention at the Post Office than all of the other letter mail processing areas.

At the present time, sorting is done by highly trained personnel who must look at the address on each letter and then sort the mail with the aid of various types of sorting machines. The most automatic of the sorting machines in large Post Offices is the manual key sort with which 12 operators sort 36,000 letters per hour into a maximum possible 279 different sorts or bins. Each letter is automatically fed to a position in front of the operator; the operator reads the address and then presses the appropriate numbered key causing the letter to be automatically placed in its appropriate destination bin. Since the operator must be trained to know the sorting scheme—that is, which addresses go in which numbered bin—the sorting operator is the most highly skilled laborer in the Post Office.

Under development is a computer system that would enable the sorting operator to key certain digits that appear in the zip code of the address; the computer then translates the zip code numbers into the correct number of the appropriate bin, so that the operator does not have to learn the numbering scheme.

But it is the automatic reading of addresses by optical reading machines that is the real hope of Post Office mechanization. These electronically scan typed or printed addresses—rather

than having the address read by an operator. Four optical character readers, made by Philco-Ford Corp., are being field tested now in large Post Offices. These machines can read an address in 83 milliseconds. One reading machine reads some 90,000 letters per hour and feeds them into the letter sorting machine.

At their present state of development, optical scanners can read only about 40 to 50 percent of the mail that is run through them. The main problem is lack of contrast between the color of the ink in the address and the color of the envelope. The cathode ray tube now used in readers is color blind because it emits in near ultraviolet just outside the visible spectrum. This causes trouble when trying to read, for example, red type on a gray envelope. A possible solution is the use of the laser as part of an optical reader's scanning system. With the laser any color type can be read on any color letter since the laser emits in several parts of the visible spectrum.

The Post Office estimates that with the proper regulation of what goes on the letter envelope and where it is placed, 90 percent of all letter mail could be read by optical scanners. The only postal restriction on letter mail now is one that requires that the envelope be over a minimum size of three by four and a half inches.

For sacking and dispatching the department now uses movable tables, sack racks, hampers, trucks, skids and other material-handling devices and various types of conveyors. Under development are improved methods that eliminate roller tables, hand and power trucks, and other materials handling devices from workroom floors.

Looking ahead to the automation that will exist in the Post Office 10 years from now, Dr. Edward Reilley, director of research and development for the department, predicts that processing will be almost fully automatic. "Optical readers will be able to read 95 percent of all letter mail," he says. "While the development of an optical reader that can read handwritten letter mail is not in sight, in 10 years 95 percent of all letter mail will be typed or printed since most personal letters will be done then on typewriters."

The Post Office is also looking into a self-service parcel post office to be put in shopping centers. Self-service letter mail offices have already been developed. Reilley predicts that both of these will be in widespread use in 10 years. But the overall picture depends on what kind of an organization is pushing it. ◇