

**BEFORE THE  
POSTAL REGULATORY COMMISSION**

SIX-DAY TO FIVE-DAY STREET DELIVERY  
AND RELATED SERVICE CHANGES, 2010

Docket No. N2010-1

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**Excerpt of Program of Policy Studies in Science and Technology, *Final Report: USPS And  
The Communications Revolution: Impacts, Options, and Issues* (March 5, 1977)**

## FINAL REPORT

USPS AND THE COMMUNICATIONS REVOLUTION:  
IMPACTS, OPTIONS, AND ISSUES

March 5, 1977

Prepared by the

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## EXECUTIVE SUMMARY OF OPTIONS AND ISSUES ANALYSIS

The two basic policies of the United States Government with regard to mail service are: universal access to mail service at reasonable cost to users, and achievement of financially viable, cost effective postal operations. These two objectives, already threatened by inflationary pressures, now face an additional serious threat: competitive diversion of revenue-producing portions of the mailstream by electronic communications -- including message-carrying computer networks, facsimile services, and electronic funds transfer.

The consequences of electronic communication systems (ECS) for the mailstream are determined by institutional and user attitude factors more so than technical or economic considerations. The estimated upper limit on the possible diversion of mail due to ECS is 5.4 billion pieces (5.5%) in 1979 and 20.3 billion (19%) in 1984. These diversions are from the most lucrative mail -- first class and commercial bulk mail third class -- especially that exchanged among business, government, and non-profit institutions. More importantly, when this diversion actually appears in the form of decreased volume, the time for effective steps to correct the situation will have passed. (See page viii for summary of diversion analysis.)

It is therefore necessary for USPS, and for the Congress, to make some fundamental decisions immediately. There are three basic options:

- USPS could continue present efforts to make its services and operations more efficient but not attempt to participate in electronic communication systems (ECS).
- USPS could participate in ECS through contractual cooperation with industry, utilizing excess capacity on existing networks and facilities.
- USPS could participate in ECS by establishing its own electronic mail systems and competing with existing private systems.

This report recommends the second option, cooperative participation, on the grounds that:

- Non-participation (the first option) will, in the long run, further erode the financial viability of postal operations. As physical mail delivery becomes only one alternative in the increasingly competitive landscape of communication technologies and systems, some vital mail services may have to be reduced or more heavily subsidized.
- Fully competitive participation (the third option) involves potentially high political and judicial costs, and a relatively high probability of financial failure for USPS electronic mail services, since USPS is far behind the private sector in developing this capability.
- Cooperative participation by the USPS in ECS (the second option) will assure access for a wider range of users -- small businesses, professional, civic, and charitable organizations, and households --

to sophisticated electronic message delivery systems. These groups may not be served, at least in the short term, by the private sector.

- Cooperative participation will create a working relationship between USPS and the ECS industry; this will lead to a more adaptive and increased use of USPS facilities and personnel in the emerging national and international electronic communications network.
- Cooperative participation will also allow better use of existing communications capacity, encourage technical development, and minimize (although not avoid) initial costs and long-term financial risks of USPS participation.

Cooperative participation by USPS in ECS will, however, raise some additional policy issues:

- Should USPS enjoy a favored party status in electronic message services: e.g., to what extent should these services, when offered by USPS, be regulated by the FCC as are communications common carriers at present?
- Should the separation between communication and computation services now imposed by Federal regulations be continued?
- Should USPS electronic message services be marginally costed or competitively costed or public service costed?
- How will present copyright laws be applied to ECS?
- How will privacy and security of information be assured? For what reasons, if any, will the Federal government monitor, limit, or record electronic transmission?
- Will ECS participation create new legal liabilities for the government or for USPS?

Full analysis of these issues is beyond the scope of this report, but some implications of policy options are indicated.

The basic recommendation of this report is that Congress and the President should direct USPS to take immediate steps toward participation in ECS through contractual cooperation with the private sector communications industries.

We also recommend that, whether or not USPS is to participate in ECS, USPS should be directed to establish a continuing mailstream description system. No major industry or corporation attempts to operate with so little information about its real costs and its market as does USPS. A mailstream description system would help USPS achieve greater efficiency, economy, and effectiveness for its services, as well as guide any participation in ECS. Further, USPS should be directed and given the necessary support to increase and upgrade its marketing research, long-range planning, and research and development functions and in general its responsiveness to user needs.

Finally, Congress and the President should seek ways to raise the level at which postal-related policy issues are considered, recognizing that they can no longer be considered in isolation from the broader issues of national communications policy. These issues affect the responsibilities of

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a wide range of Congressional committees beyond those which exercise oversight over USPS. To inform these committees, including those with responsibility for banking and finance, commerce and trade, rural development, the media, social security, and information and communication technologies, we recommend that joint Congressional hearings be held. The Office of Technology Assessment should be considered as a source of further analytical support for such efforts.

In the Executive Branch, the responsibilities of the FCC, OTP, OT, and the Department of Commerce are involved in resolving postal-related issues. The analytical groups of all of these units are overworked and understaffed. We recommend that the communications policy functions of the FCC, OTP, OT, and the Department of Commerce be upgraded and strengthened.

Equitable access to modern modes of communication is essential to many aspects of American life and society. The maintenance of a strong and healthy postal service is basic to the continued provision of equitable access. The consequences of ECS for the mailstream present a serious threat to the financial health of the postal service, with or without diversion, and thus to equitable access to modern modes of communication. Unless action is taken soon to deal with this threat, corrective measures in other areas of postal service operations may be negated by the overriding impacts of ECS.

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For illustrative purposes, the trend was continued to 20 years to show that diversion would still be progressing with mail volume only 8% less than today's. (In this time frame, ECS may have extended to households in a significant way, life styles may have changed, and communications may be radically different than today's expectations.)

One sees that the majority of the diversion has taken place in the exchanges among institutions. Exchanges among households are little affected.

#### Implications and Consequences of Diversion

The following is a condensed list of highlights from the analysis performed to bound the potential impact of ECS on the mail stream:

1. Simple examination of the mail stream will not provide sufficient warning for USPS to take effective action. Initially, diversion is small. But the high growth rate of the causes for diversion becomes overwhelming once they are evident in mail volumes.
2. Even though 49% of the mail volume is quite easily encoded electronically, institutional, economic, and sender/receiver factors will inhibit the rate of loss of mail to less than two-fifths of this during the next decade.
3. Electronic communication systems will increasingly divert the short, stereotyped messages and increase the demand for the unusual, larger, and heavier items going to out-of-the-way places or small establishments. These are high-cost items for USPS to serve. Increases in volumes of such items would lose USPS money, increase its need for manpower, and reduce the need for automatic handling equipment.
4. Mail sent from large institution to large institution will be the first to be lost. Large corporations, major universities, insurance companies, aggressive banks, research organizations, and the like will use electronic communications for transactions, correspondence, memos, as well as the computer services that associate with this communication such as text editing, automatic distribution of memos, and scheduled payments. Smaller organizations could be handicapped by not participating in these private networks.

5. The USPS provides the crucial link between the centralized and large institutions and the small dispersed households and organizations. Reliance on this distribution and collection system is unlikely to be threatened by ECS over the next ten years. Possible applications of ECS, such as EFT, are not likely to create significant diversions in this time frame, although some losses will occur through the automatic depositing of checks.

6. The diversity of the mail stream protects USPS from complete and abrupt interruption of its services. This diversity also poses great difficulty in assessing their position since any adequate description of their "market" for mail services is inherently disaggregate and complicated. Moreover, they must contact the user groups in order to anticipate changes with enough warning to plan responses.

7. The most vulnerable volumes are the most profitable to USPS. These are first class transactional and correspondence mails among businesses, non-profit organizations and government; transactions between institutions and householders appear to be the next most vulnerable, especially financial deposits and possibly bill payments. Commercial advertisers have a number of indirect uses for electronic technologies that will assist them in reducing costs or increasing efficiency.

8. Estimates of diversion are taken from an expected 2% annual growth according to historical trends for the USPS. Because GNP, population, and numbers of household addresses are growing at comparable rates, this is a logical expectation. According to our analysis, total mail volume would still continue to grow until 1980. Thereafter, it would be possible for ECS alone to cause an absolute decrease even though this is not anticipated.

9. First class mail constitutes 48% of revenues, 49% of attributable costs and 57% of all mail pieces. Third class bulk mail, mostly advertising, contributes 60% more revenue than its attributable cost; first class contributes 71% more. These two mail classes are largely responsible for covering fixed and institutional costs of USPS operation. Essentially, all diversion is from these two classes.

10. An upper limit on financial loss of mail revenue after five years would be \$600 million annually. This corresponds to 5.5% of the mail stream being diverted. In ten years an "upper limit" on the loss of revenue would be \$2.2 billion annually, even though we anticipate \$1 billion to be a more likely estimate.

11. Several mail volumes can be expected to grow as a result of ECS. More intense communication among people at distant locations due to ECS will produce an associated desire to exchange information or objects that are cumbersome to transmit electronically. Computer tapes, cassette recordings, large volumes of reference materials, library books, small circulation journals, catalogs for limited markets, are but a few of the items that may increase in demand. Computer networks will permit the formation of small specialized groups with members scattered throughout the United States or even the world. Such networks are already being used to facilitate buying and selling of information and specialized skills, and will stimulate the need for distribution of supplementary materials. Greater ownership of television tape recorders in the home and videodiscs for viewing prerecorded shows will contribute to the parcel mail.

12. These mail services which can be expected to grow do not pay their attributable costs, let alone support institutional costs. Private organizations can compete for the lucrative portions of these exchanges, leaving the unprofitable services to USPS.

POLICY ISSUES

The basic U.S. policy toward mail service has been the same since the Post Office was established in the early days of the republic: guaranteed service to all citizens and institutions, with substantial equality of access, service, and cost to users. The compelling national objective embodied in this policy is one of knitting together a national economy and national polity, composed of a diverse population and diverse economic institutions dispersed over a large geographical area. This national objective subsumes several equally important goals:

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