ODP-8-2251

MEMORANDUM FOR: Chief, Management and Assessment Staff, DDA

FROM   : Clifford D. May, Jr.
                  Director of Data Processing

SUBJECT   : Communications Support Requirements
                  FY-1981-85

REFERENCES   : a. Your Memo, Same Subject, dated
                      17 November 1978
                  b. Memo from Director of Communications,
                      Same Subject, dated 20 October 1978

1.   As requested by references a. and b., we describe
in the following paragraphs our requirements for support from
the Agency communications program for the planning years
FY 1981-1985. These requirements will be coordinated within
the Directorate, but it is possible that some duplicate
requirements exist between ODP and non-DDA organizations.

2.   Project SAFE Communications Requirements FY 81-85:
The SAFE Headquarters communication system is being funded,
designed, developed and tested apart from the requirements
stated in this paper. However, approximately 300 terminals
will be connected to SAFE from non-Headquarters buildings.
Communications support and funding for the circuits to
support remote building terminals should be programmed
by OC. A reasonable maximum planning rate for outside
Headquarters (remote) terminal installations is as follows:

Fiscal Year	81	82	83	84	85
Terminals	30	100	100	40	30

The required digital data rate for these terminals is 9.6KB/
second. Requirements for higher rates, if any, for possible
image transmission are not yet known.

There are interface requirements for SAFE/Cable Dissemination Systems but neither the methods nor the communications requirements are adequately defined at this time. The SAFE Project Communications Requirements paper, due in January 1979, should establish firm requirements in this area.

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3. COMIREX Automated Management System (CAMS): This system will have 95 CRT terminals, 12 read only printers, and 2 remote job entry devices connected to a COMTEN front-end processor in the Special Center at the end of FY 1980. From 1981 through 1985, we will install 15 CRT terminals and 3 read only printers each year. In addition, we expect to install 2 graphics terminals in 1980 and five more in 1981. The data rate for all terminals will be at least 9600 bps, but the graphics terminal rate may be higher and require different interface equipment. In 1980, we are going to examine the feasibility of providing for more efficient and more closely coupled computer-to-computer communications with participating agencies, including

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4. Data Communications Requirements: By the end of FY 1980, about [____] terminals will be connected to the ODP computer centers. We expect that 150 will be installed in at least twenty-five sites separate from Headquarters. At present, asynchronous terminals are standardized at 2400 bps and synchronous at 9600 bps, but during this year we will begin to install the new standard terminals, which will operate at 9600 bps. All terminal installation requirements stated below are for this rate or higher.

Continual demand for new terminals at a fairly steady rate is predicted. Our surveys of customer intentions clearly indicate more terminals required than we can obtain, for whatever reason. Therefore, the growth rate stated is what we believe is a reasonable expectation, given budget authorization, resources available for installation, and shifting priorities, among other constraints or limitations.

Fiscal Year	81	82	83	84	85	Total
Number of New Terminals Installed (9600 bps)						

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In addition, gradual replacement of existing terminal installations with the new standard is planned. This is mentioned as a potential communications requirement because the standard bps rate will go from 2400 to 9600 for each terminal replaced.

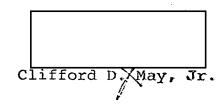| Fiscal Year	82	83	84	85	Total
Number of New Terminals (Replacement) (9600 bps)					

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Past experience leads us to expect new site instal-lations and requirements for new data communications centers outside Headquarters. Last year we estimated six new loca-tions, one with 60-100 terminals and five with 10-16 during the planning period. We believe that may be still reasonable, but by FY 1985, not FY-82.

Our goals for reliability and error control remain the same, that is: .995 average reliability and one uncorrected error per week per circuit.

As noted last year, we believe minicomputer instal-lations will be accelerated in the future. However, the options offered in the new standard terminal could substi-tute for minicomputers for certain functions. As yet, ODP does not offer a standard minicomputer configuration. There-fore, we do not have any communications requirements for minicomputers that are firm. We do not intend to budget for non-standard minicomputers.

5. <u>Technical Support</u>: This office will install a new CAMS computer in FY-81, and 5 new or upgraded front-end processors by FY 1980. At the end of the planning period, we will begin to replace some of our older computers in the Ruffing Center. These installations will require continuing support from OC for procurement and installation of associated hardware, recabling, accelerated maintenance and similar activities.

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Clifford D. May, Jr.