

being exploited in the Department. Of more importance from the information systems viewpoint, the magnetic tape recording could be converted easily into computer-readable form without any additional manual effort. These two approaches to capturing input could significantly lighten the manual workload involved in feeding the system and would provide, if needed, the basis from which to move into full-text storage or automatic keyword selection at some later date.

129. The full support requirements for Level III and IV activities have not yet been defined. It is, however, conceivable that while full-text storage would not prove immediately feasible for general application it could be used to great advantage for special features of the subsidiary systems in conjunction with CRT on-line terminals.

Information Storage

130. There are two major requirements for the storage of substantive information in the Department. These are availability for retrieval for analytic and operational purposes, and archival storage for historical purposes. Storage in either case must be subject to the two important criteria of providing access to both subject collections of information and individual documents.

131. The current system is virtually restricted to the use of paper as the storage medium. However, the range of possibilities for storage of the total substantive information file consists of microform (fiche and film), video tape files and computer-compatible (electronic) full-text storage as well as "hard copy".

132. From the archival point of view, foreign affairs files generally being among the most interesting historically for researchers, there is understandable resistance to any storage form which would eliminate either "hard copy" or subject collections of papers. This does not rule out a combination of existing "hard copy" in subject collections with other forms which have definite operational advantages. For example, microfilm/microfiche are desirable in a number of ways, particularly for space-saving, portability, ease of handling and the relatively low cost of reproduction. Use of microfiche enables large volumes of the same information to be stored economically in a number of locations. Microfiche readers and printers are in widespread use at the present time, and usually have a high quality of image projection. Microfiche are units or sets of information and are not very suitable for applications in which the units (or groups) increase in size day by day as in an ordinary file. They are therefore more suitable for closed files than current files. Roll microfilm, on the other hand, can handle incremental files, but suffers from the disadvantage that access to specific items in large volumes of information is cumbersome, all previous frames on any roll of film having to be sequentially passed to reach the desired frame.

133. A newer technology with similar aims to those of microform is that of video tape storage. The technique here is to take a 'photograph' of the material in the same way a TV camera does, storing the image on a magnetic tape in analogue or digital form. Because the medium is electronic, the images can be produced on a CRT terminal and selectively copied onto other tapes. This enables random selection for file-building and remote viewing. While somewhat more flexible in these ways than microfilm/microfiche, it is also a less proven and more expensive technology. It also suffers from the same disadvantage as