NPIC/PPBS/PPD-01-70 25 February 1970

MEMORANDUM FOR: Chief, Plans & Programs Division, PPBS/NPIC

SUBJECT : Improvement of the MIS

1. Management throughout the Center has expressed concern for the lack of timeliness of the MIS Reports.

2. This concern was stated at the time of MIS study when, in fact, at that time the MIS update required 7 to 10 days.

3. Today the situation is worse. Updates take upwards of 14 days -- too long to be of value to most users and especially the PMB.

- 4. To bring this problem into focus, review of the memorandum of agreement between PPBS and PSG/AID of 25 July 1968, which dealt with the realignment of functions, responsibilities, and personnel associated with the MIS, reveals that five persons were transferred to AID to perform the following activities:
  - a. The collection and verification of manhour data (recorded on time sheets) and submission of these data to the Operations Branch, AID, for input to the computer-based Management Information System.
  - b. The collection and verification of project data (e.g., project information work phase notices, products, etc.) and submission of these data to the Operations Branch, AID, for inclusion in the MIS.
  - c. The maintenance (e.g., updating and purging) of data contained in the MIS.
  - d. The preparation of algorithms for the retrieval of information from the MIS and the collation and presentation of this information in a format mutually agreed to by AID and PPBS. (To be limited to those services amenable to existing MIS software and/or which require minimum manual extraction and formatting operations.)
  - e. The continuing review and redesign of system components of the MIS in an effort to improve MIS products and meet the changing demands of MIS customers, as determined by PPBS in consultation with AID.

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- f. Serve as the interface between operational and developmental components of AID and MIS customers in all matters pertaining to the MIS.
- 5. Today only two individuals are associated with the above activities. The effect has been that the time required to complete an MIS update has increased and less attention has been and is being paid to activities 4c and 4e above. The other three persons have been transferred to work considered by AID to be more critical.
- 6. After observing the work of the AID MIS staff, I would agree that between two to three persons are sufficient to carry on the above activities, provided certain changes in policy and procedures take place, namely:
  - a. In terms of policy, the MIS must be given a higher priority for EAM and computer activities.
  - b. In terms of procedures, the present, essentially manual, input data editing sub-system must be revised to utilize the computer in the verification, correction, and input of MIS data. This would improve the timeliness of the MIS and provide the AID MIS staff with more time to perform activities 4c and 4e.
- 7. Before detailing recommendations, other aspects of the problem should be discussed.
  - a. For several years now each time an improvement was sought in the MIS, the method used was to go out and ask the various Groups and Divisions what kind of improvements they would like.
  - b. Naturally, all sorts of nebulous answers would come back; e.g., too many or not enough activities codes, too many errors in system, etc.
  - c. Either these types of answers are problems or they are not, and no one knows for sure because very few studies have been made -- and unfortunately the few studies that have been made have used MIS data (which may be inaccurate) to prove that data itself was inaccurate.
  - d. To put the problem further into focus, the memorandum of agreement between PPBS and PSG/AID, in terms of the activities to be performed by PPBS, stated:

- (1) Determination of management data elements which should be recorded in the MIS.
- (2) The determination of the information elements which should be extracted from the MIS.
- (3) The analysis of data extracted from the MIS.
- (4) The preparation of management analysis reports based in whole or in part on information extracted from the MIS.
- e. Certainly PPBS has involved itself in these activities, but on a more or less ad hoc basis and no formal, vigorous method of data analysis on a regular basis has been established. The data within the MIS (even if expanded) is in itself not significant; rather, it is the analysis performed upon the data and the use to which it is put that is significant.
- f. To some extent PPBS uses MIS data to provide forcasts of future work efforts, but no attention is given to authenticating the data itself.
- g. Do we or do we not have too many project activity codes etc? Is this system being misused? Many questions could be asked, the answers to which, in the final analysis, could provide the Center with an accurate, useful, and lean MIS.
- h. In essence then, we need both an auditing system (a vital aspect of any MIS non-existant in the present system) and a data element analysis system.
- i. The problem of the MIS is much broader than just the software to perform the editing, auditing, and analysis. It involves PSG/AID in how they carry on their responsibilities, it involves PPBS in how it does its analysis, and it involves the PMB since it is vitally associated with the MIS data.
- 8. It is within this framework then that I make the following recommendations:
  - a. PPBS/RAD take on the role of Center MIS coordinator.
    - (1) To some extent RAD now has this role since it chairs the PMB, handles requirements, issues project numbers, and inputs work phase notices.

- (2) However, more has to be done in the area of auditing the system and drawing inferences from the data elements about the system.
- b. PPBS/PPD task PSG/AID to develop an input data verify and edit sub-system to the MIS.
- c. PPBS/PPD develop an auditing and analysis system.
- d. PPBS/PPD develop a new production control system.
  - (1) The parameters of this system have been set.
  - (2) This system is in line with the new MIS concept of an operational control system.
- 9. The proposed MIS modification would comprise:
  - Development of a remote access system for the U-494.
    - (1) To provide PSG/AID the tool by which to verify, edit, and correct MIS input data and to provide a timely (weekly) MIS update.
    - (2) To provide PPBS/RAD the tool by which to audit the MIS input data.
    - (3) To provide PPBS/RAD the basic MIS data by which analytical studies can be made.
  - b. Establishment of a basis of understanding between all components and the MIS.
    - (1) To minimize the misuse of the system.
    - (2) To streamline the system so as to make it trim and relevant.
    - (3) To set the stage for a future real time, MIS system.
  - c. To make use of information input into the MIS but lost once the update is made.
- 10. Concepts basic to this modification are:
  - a. Time sheets will be modified to include the entry of the agency occupation (skill) codes.

- b. Each Monday at 1200, the time sheets will be sent directly to PSG/AID/OB for keypunching.
- c. The time cards will be read directly into the computer where all entries will be checked for completeness of information and accuracy.
- d. All the time cards, along with tables of valid project numbers, skill codes, activity codes, etc., will be stored on drum.
- e. An error listing will be returned to PSG/AID/SIS.
- f. All corrections will be made from a remote console directly to the drum file.
- g. Concurrently, PPBS/RAD (also from a remote console) will perform an audit to the drum base file and submit corrections in a like manner.
- h. A listing showing all errors found will be sent to the appropriate component from the building MIS coordinator (CH/RAD) through the PMB.
- i. When the file has been corrected, PPBS/RAD will signal PSG/AID to proceed with the normal MIS update.
- j. PPBS/PPD will query the same drum base file and analytically study the information.
  - (1) A profile of skills committed to certain projects could be made.
    - (2) A determination could be made as to which projects, activity codes, etc. are never or infrequently used.
  - (3) The study of such information could provide the Center with an understanding of the MIS and provide the framework for improving the entire MIS.
- k. The file will be stored on drum for one week (when the next weeks time sheets are input) then saved on tape for approximately two weeks until all the analysis has been performed.
- 11. The modification will be accomplished as follows:

- Contractual services will not be utilized.
- Enlist the services of PSG/AID to support PPBS/PPD to expand and refine the basic concept.
- Enlist the services of PSG/AID to support PPBS/PPD and PPBS/RAD in the analysis and design of the system.
- d. Enlist the services of PSG/AID to program, document, and implement the verify, edit, and correction phase of the system.
- e. Enlist the services of PSG/AID to provide programming support for the auditing and analysis of the file.

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