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20 July 1970

MEMORANDUM FOR: Chief, Plans & Programs Division, PPBS/NPIC  
SUBJECT : Management Information System (MIS)

What is the MIS?

The MIS handbook gives the following definition:

"The MIS is a method of collecting data on Center activities in order to provide a systematic means of accounting for tasks levied on the Center, the effort expended by Center personnel, and a record of the resulting products. The information acquired can be used not only to determine how manpower was used, but also to assess the status of work in process and to determine the Center's capability to take on additional work and the relative priority in which it will be accomplished. Furthermore, based on past performance, the MIS can assist in projecting the Center's need for manpower and funds.

The system provides information. It does not make decisions-- that is the responsibility of management. It does, however, enable management to make decisions based on a greater range of information than would be possible without the system.

The system is quantitative only in that it records how much was produced, how long an effort took, or how many man-months of effort were involved. It does not evaluate quality. The

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customer is the judge of the quality of the Center's product; the supervisor of the employee's performance.

The effectiveness of the MIS is chiefly determined by the information entered into it. Since most of the information going into the system comes from the individual employee's accounting for his time, the wholehearted cooperation of each person is essential for the system to work properly."

What is the Purpose of the MIS?

1. To provide a statistical base from which management can assess past and current operations and to plan for oncoming commitments.
2. To provide a tool to be used by the line manager in evaluating his component's performance.
3. To present information to production components for planning and controlling their work.
4. To report status information of the Center's work flow.
5. To provide a standardized method of accounting for and reporting manpower utilization.

In What Ways has the MIS been Used?

1. ~~Primarily~~<sup>F</sup> for analysis of specific projects or programs to determine:
  - a. Cost of a project or program in terms of manpower and dollar equivalents.
  - b. Duration of a project.
  - c. Types of activities (PI, editing, graphics, etc.) associated with a project and the cost of each; e.g.

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what is the PI cost of a certain report, what is the cost of security escort duty, etc?

- d. Overtime costs for various projects.
  - e. The types of projects associated with the various NPIC components.
  - f. The number of projects started, cancelled, or completed in a given period of time, and the number of projects currently in work.
2. ~~The MIS has also been used~~ <sup>T</sup> to forecast the effort required to exploit a mission.
  3. ~~The MIS has been used~~ <sup>T</sup> to provide the Production Management Board with a project status report to facilitate project scheduling.
  4. ~~The MIS is used~~ <sup>T</sup> to show NPIC support to CIA and non-CIA components.
  5. ~~The MIS has been used on numerous occasions~~ <sup>T</sup> to answer ad hoc requests for information by the various levels of NPIC and Agency management. These requests vary from computer utilization, report production, costs of certain programs, planning, budgeting, training, travel, etc.

Why is the MIS Needed?

1. It is the only source of Center-wide information by which management at all levels can measure the Center's performance.
2. It enables all Center personnel to use the same system thereby reducing operation costs.

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What are the Costs of the MIS?

1. There are the PSG/AID personnel costs to administer the system. Included here are the costs to perform the functions dealing with the computer operations, inputing of data, producing reports, and maintaining the file. Roughly this amounts to [redacted]. (Based on two plus man years at the Centers' average salary.)

25X1

2. If purchased, computer time for the MIS would cost about [redacted] per year; However, since we own our computers and we have not reached a saturation level on computer utilization we do not include this in our total MIS costs. (Based on two hours of computer time per week at approximately [redacted])

25X1

3. The cost for such activities as preparing time sheets and requesting special retrievals from the MIS is approximately [redacted] per year. (Based on the Centers' average salary and each individual spending 15 min/week filling out his time sheet.)

25X1

4. It is estimated that keypunching of time cards runs about [redacted]

25X1

5. The total cost of the MIS without considering the sunk computer cost of [redacted]

25X1

6. Put another way, for approximately *8 \$ man year* ~~one man year~~ per each major

*Exp. Bureau*  
~~(division)~~ we have a Center wide project time reporting system.

In View of the Costs What are the Alternatives and What can be Said for Each?

1. Drop the central system (MIS) and allow each group to develop *its* their own system to meet *its* their needs ~~and the needs of the Center.~~ *Assume*

*That the Center's total needs can be met by an amalgam of the data from the individual systems.*

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*because of the cost of the system... will be a problem...*

*Alternative may well cost us more than the present system*  
This is not to end up costing more than one man year per each division and yet create a multitude of unrelated information systems difficult, if not impossible, to correlate the necessary data for decision making by the Center's top level management.

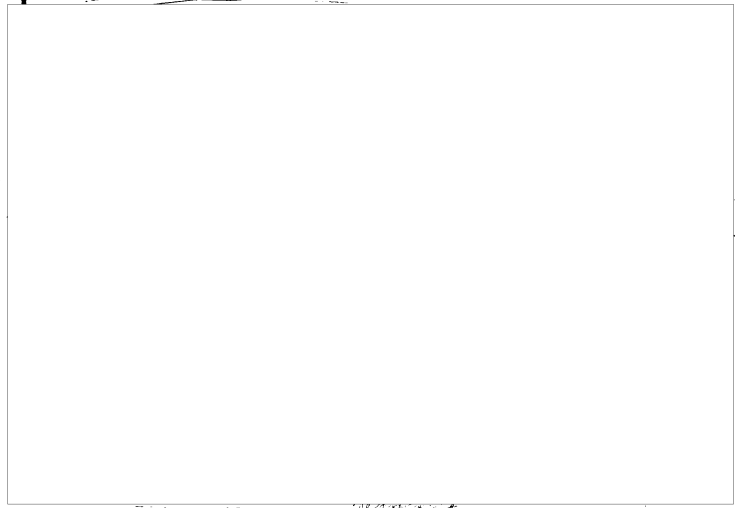
2. *Continue the system as it presently exists*  
~~Do nothing with the MIS.~~ It will still serve many purposes but its full potential will not be realized because of its relative slow response time.

3. Improve the MIS. Modify the system and its operating procedures to insure a more rapid turn-around-time thus increasing its usefulness to the Center's managers.

Recommendation

1. The MIS should be retained.
2. The MIS should be improved.
3. Once the system has been improved the MIS data should be studied analytically to determine what further action should be taken.

What is to be Gained by Approving These Recommendations?



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3. ~~Second~~ *Third*, the Center would ~~preserve~~ a system which is familiar to all Center employees. To discontinue the MIS and to attempt to replace the MIS with some other system would have real costs relative to indoctrination and re-establishment of a routine with regards to record keeping, employee familiarization, and information retrieval.



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5. *Fifth*, the system itself would be used not only for management information needs but to provide the necessary feedback to improve the MIS.

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What Improvements Can be Made to the MIS Immediately?

1. Input to the system can be reduced by dropping the requirement that the O/Dir, PPBS, and SS submit time sheets into the system.

2. A method can be devised to input bulk time against specific overhead projects for the above three components. In this way the MIS would continue to reflect all Center overhead and yet reduce the ~~number~~ <sup>number</sup> of input transactions.

What is the Rationale for This?

1. O/Dir, PPBS, and SS ~~are~~ <sup>can be</sup> considered direct overhead to the Center as a whole. ~~in which case individual time sheets for individuals in these organizational components~~

2. It makes no sense then to submit a time sheet for each individual within these components when their time generally gets aggregated anyway once placed into the computers. <sup>as not necessary</sup>

3. ~~It makes better sense to~~ <sup>rather we can</sup> determine before hand the type of activities associated with individuals within these three components, estimate the man hours, aggregate the time and submit one entry into the computer.

4. There is then just one computer entry and the filling out of time sheets for these components has been eliminated.

What Other Improvements Can be Made?

1. The timeliness of the system can be improved by:

a. ~~Providing the means by which each group can submit its man-hour data directly to the computer rather than the current method of submitting time sheets to P56/AID for keypunching, sorting, listing, checking and updating of the computer files~~ <sup>Setting the policy and procedure by which</sup> <sup>via remote console</sup>

~~Providing the computer programs by which each group~~ <sup>enables each group</sup>

b. Providing the computer programs which will read each groups man-hour data into the computer, which checks the data for correctness of entry and automatically ~~and~~ <sup>immediately</sup> returns an error listing for ~~immediate~~ <sup>immediate</sup> corrective action.

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*rather than the slower tape*

- c. Provide drum storage for the weekly man hour data .
2. The editing and auditing of MIS data (now manually performed) can be done automatically if:
  - a. Computer software and drum storage is provided.
  - b. Skill tables are added to the file.
3. Keeping the MIS from getting out of hand by:
  - a. Providing the software by which analytical studies of the MIS data can be made thus preventing misuse of the system.
  - b. Developing the software to provide a profile analysis of Center resources to determine the best method of collecting and distributing MIS data.

What will These Improvements Cost?

1. Approximately six man months of analysis and design support.
2. And twelve man months of programming support.

To Summarize Then:

1. There exists a system which in spite of its shortcomings provides the Center with information necessary to gage the performance of the Center.
2. Immediate improvements to the system can be made by not requiring the O/Dir, PPBS and SS to fill out time sheets.
3. We can make significant improvements to the MIS in terms of timeliness, edits, audits and analysis by investing approximately one and one half years of systems analysis <sup>and</sup> programmer support.