LANGLEY'S VIEWS ON NEMS

BY

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The NEMS system consists of seven Center files and one Langley-unique file, the Prior Monthly Transactions (PMT). The NEMS Monthly Transaction file contains the current activity of the working month and is emptied to begin a new month. Since there was insufficient time to get all the information needed from this file before it was purged, we requested that the PMT file be established. This file assists our users in generating statistical information on data for periods greater than 1 month. It is also used to determine employee workload and productivity and has been beneficial as an audit trail on our items. The PMT file will be maintained for 12 months.

In order for anyone to access the NEMS on-line system, he must first have his USERID set up. Whenever an attempt is made to enter NEMS, the system checks the USERID against the NEMS USERID/AUTHORITY Table and, if it is not on the table, all access is terminated. A user may have access to all or part of a subsystem, or may not have access to a particular subsystem at all, depending on the level of authority given him.

There are five NEMS on-line subsystems. They are all menu driven with formatted screens. The main menu will display only the subsystems the user is authorized to use. Each subsystem can have various levels of authorization within it.

The NEMS Batch System consists of a series of jobs that perform various functions ranging from data base updating to reporting to data base maintenance. It is designed to run after the on-line system has been brought down. A NATURAL program submits the scheduled jobs and monitors their progress. All job submission and restarting is automatic and is initiated by the same NEMS job.

JCL used to run the various batch reports and maintenance functions is contained in one place. The JCL is automatically submitted to the internal reader by the JCL Generator programs based on control switches set in the records. For instance, if we are running the monthly cycle, only JCL card images with the monthly switch are selected.

A control record is used to monitor the job flow and the status of each job. This record is used to check for the completion of all jobs. At the end of the batch system, or if a fatal error occurs, a journal report is produced. It serves as an activity log for the run for that day.

As with all new systems, it is not unusual to encounter various problems. After 2 months of actual production it was decided that BDSD and Equipment Management personnel would document problem areas and situations experienced with NEMS. The documentation included changes we needed at Langley as well as other items we felt would assure smooth installation at other Centers. The documentation was transmitted to NASA Headquarters as an attachment to a letter from the Director for Management Operations. We identified 32 problem areas and/or concerns, with most being minor. Of the 32 items, 13 have been corrected and most of the others are in the process of being corrected.

One of Langley's greatest concerns is with the reconciliation between NEMS and the General Ledger. Langley's accounting system tracks cost data to the penny level. NEMS deals in whole dollar amounts. Therefore, we have no way of reconciling the two. The only approach that is acceptable to Langley, unless requirements for reconciliation are changed, is for the NEMS files and the reports involved in the process be at the penny level. All other NEMS reports can remain whole dollars.

Also to reconcile, Langley needs data to show the difference between the previous cost and the new cost for the month. On an input record, the adjustment amount is added to the cost and recorded as total amount. The adjusted cost is not captured. In order to establish a control between the prior months and the current month, a new field needs to be added to capture the adjusted cost (debits and credits). Langley has not reconciled the Equipment account with the General Ledger since February 1984.

Problems with NEMS regular production runs cause concern. Production at Langley is run on the second and/or third shift. If a run(s) terminates and/or abends in a particular module, we must wait until the next day to resolve NEMS problems after consultation with Headquarters personnel. Although Headquarters has given Langley excellent response in problem resolution, it is often difficult to define the problems by telephone. In addition, the NEMS users cannot use the system until problems are solved and the runs completed, which occurs in the next night's production.

NEMS is a very good system and has many outstanding features. However, for a successful installation, we must have (1) a good data base to convert to NEMS and (2) users and the data processing staff must work together.