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## **SEMIANNUAL TECHNICAL REPORT NORSAR PHASE 3**

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## M. PROGRAMMING ACTIVITY

The activity of the programming group in this period falls in the following, partially overlapping, categories:

- development of new programs
- maintenance of program systems
- support and routine processing.

The maintenance of program systems will be described separately in their respective chapters (K and L). Also, some time has been used to study documentation related to ARPANET (see Chapter N). Some programming support and consultative help has been given to visiting scientists.

## Development of New Programs

The following programs have been designed and coded in this period:

- A program that lists the Event Processor SYSLSTtape on the printer, and at the same time punches Edited Bulletin Reports on cards, if any are found on the tape. By using this program computing time is saved, which otherwise would be used to hunt for the correct Edited Bulletin on the Event Tape.
- A complete inventory program for NTNF/NORSAR equipment.
- A subroutine that allows the programmer to give the end coordinates, instead of the starting point coordinates of a number to be plotted.
- A program that selects specified records from the Detection Log Tapes and copies the records onto output tapes in one or more runs.

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A program that copies long period records in specified data intervals from Low Rate tapes onto an output tape.

A one-event processor scheduler, that uses the Event Processor packages and facilities to compute a solution (Summary Report and Plot output) for one single event, based on input parameters given over the 1052 Console typewriter. In this way a facility for getting an EP solution for a specified event is available, without having to wait for the delayed on-line EP solution.

A program giving a statistical summary of the data output from the Array Monitoring process.

## Support and Routine Processing

The following routine and support jobs have been performed throughout the period, contributing significantly to the work load:

- Maintenance of the tape library directory, using the Tape Library program,
- Job shop runs of developed analysis programs for scientists and foreign visitors,
- Running of discrimination test programs and compilation of explosion data,
- Administration and control of the Data Retention procedure,
- Administration of a large amount of DP off-line runs, for an investigation on signal detectability and false alarm rate, and
- Investigation and record keeping of DP on-line unscheduled stops.

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