

COMPUTERS IN AIR

H.O. Srivastava, Director, Computers, AIR, New Delhi

To keep up with the technology explosion in information and communication, the oldest service, AIR, had to go for technology upgradation to cope with the rest of the world. Computers came in for the management of bulletins, administration, and personnel management for AIR

To know how they work Dr. Ranjit Singh interviewed H.O. Srivastava, Director, computers, AIR

■ What are the application areas for computers in your department?
 □ The areas are divided into two parts. One is MIS, which includes personnel management. This is on a Unix machine which we purchased from ESPL. The other package is on project management. This is a very sophisticated package using PERT/CPM techniques, and it has been implemented at headquarters as well as at zonal offices in Delhi, Bombay, Calcutta and Madras. The third application: We have got 36,000 audio tapes which are stored at headquarters. If a programme is to be produced then sorting operation from these tapes is required. This again is in the UNIX environment.

We have another machine, Norsk Data 550, which contains material management and inventory control. In addition, we have a royalty payment package. Royalty is paid to film producers depending on the number of times a particular song is telecast. Another package which we have developed is billing for commercials. Our revenue is Rs. 290 mn every year. Another application is computer-aided design (CAD).

■ Where do you propose to use this CAD package?

□ AIR is implementing a huge expansion plan costing Rs. 7 bn during 1985-1990 where 100 identical radio stations are being set up. The design of these studios as well as buildings is being done using our CAD package.

■ Does that mean that various acoustic parameters like reverberation time (RT) are also accounted for in your CAD?

□ Yes, the RT for our studios is between 0.2s to 0.8s. In addition, we have developed structural analysis package which is useful for civil and



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tower designs.

■ How did you develop the operational software?

□ Certain software has been developed by suppliers and subsequent modifications have been carried out in-house.

■ What is the hardware configuration?

□ We have a Norsk Data 550 super minicomputer along with a CAD system, 1.2 KB x 1.2 KB graphic system, AO digitizer, AO plotter magtapes and terminals. Another system is Unix based having 10 terminals and 7 PC's. Also there are 4 computers in zonal offices and those are all Unix based machines.

■ Would you like to throw some light on the historical development about induction of computers in AIR?

□ A. In the wake of the huge expansion plans of television in 1982, when one TV transmitter was installed per day, the biggest problem was redeployment of staff. At that time we felt the need of computerizing our operations to face the challenge of expansion. P.S. Dhaat, ex-

engineer-in-chief, and myself had initiated a proposal which was cleared by the government. Thereafter S.P. Bhatnagar took over and initially we purchased a Rs. 1 mn computer in 1985 from ESPL.

■ What is the total cost of the system?

□ The first computer cost Rs. 1 mn and the second one Rs. 13 mn. In addition, 4 computers at zonal offices cost Rs. 3.1mn, including software. The recurring expenditure is Rs. 1.2 mn per year, of which Rs. 0.4 million is towards salaries and rest is towards maintenance.

■ What are the salient features of the software?

□ First of all, software are menu-based and simple. The software is not language-specific, it uses a report generator for creating reports. Also, we have 4-C query languages. We also have special software called screen handler.

■ What practical benefits have accrued to the department by using computers?

□ Two types: One is the economy of operations. For instance, the task of booking of advertisements and the reconciliation statement used to take upto two years. Now it takes just four weeks. This alone has resulted in saving of Rs. 0.25 mn per year.

The second type of benefit relates to satisfaction. For example, payment to producers is fast, agencies get their commission faster, and staff get their salary slips along with the provident fund statement every month.

■ Did you have any country as a model before establishing these computer facilities?

□ We had visited Japan and the United Kingdom and studied automation in NHK and the BBC. My

conclusion is Japan has done wonderful work in this area. But I would say that although Japan started automation in the 60's and we in 1985, yet as far as CAD is concerned, NHK did it in 86 and we implemented it in 1987.

■ You have computers at Delhi head-quarters and other locations, and at the moment you are depending upon mail for upgrading data. Have you explored networking of various computers?

□ We have already networked our two computers, the All-India Radio computer at head quarters and the North Zone computer near India Gate. This has been done using modems and P&T lines. Currently our

teams are going to Calcutta, Bombay, Madras for implementing network-



ing of all the computers but the leased lines over long distances are very costly. Therefore I was trying to get satellite links already allocated to AIR for this purpose.

■ In today's world where at least in urban areas television enjoys much more popularity, what role do you envisage for radio?

□ It is a global phenomenon that television and VCR due to their visual impact get more attention. However, radio has its own importance. For example, you can listen to radio while driving a car or doing house hold chores, like cooking, washing, etc. Similarly, radio is popular for maintenance workers, truck drivers, field workers, etc.