

This encompasses fifty percent of all maintenance work. The major focus of the results, at the tactical level, is on the utilization of flying hours between the various maintenance checks. At the strategic level, the model can answer many questions, such as the impact of moving and closing maintenance bases and the effect of changing the number of spare aircraft.

**ASSET, A Digital Computer Language for the Simulation of  
Communication Systems**

---

by

R.R. Bowen

C.D. Shepard

R.V. Baser

Communications Research Centre,

Department of Communications

Ottawa

ASSET has been written to simulate time-continuous communication, control, and radar systems on the XDS Sigma 7. Both the detailed responses of such systems to specific inputs, and system performance characteristics such as signal to noise ratio, probability of error, probability of detection, mean squared error, etc. can be measured with ASSET. In general, the simulation technique is to convert the continuous-time system to a sampled-data system, and then to represent the sampled-data system blocks by ASSET statements. ASSET was designed with three goals in mind: ease of programming, measurement accuracy, and efficient Monte Carlo simulation; careful choice of measurement technique and compiler design resulted in what the authors believe to be an optimum compromise between these sometimes conflicting requirements.