

8.3

Paxsat Program Plan (Continued)

of each such elements would be required for operations within the geosynchronous orbit, three such complete systems would also proceed in parallel. This parallel development, despite first impressions, is not so severe. Primarily, the three elements of a Missions Control Facility, Ground Receiving Center and the Communications network is slightly more complicated than building a Command, Tracking and Ranging Facility and a Communications Ground Station for commercial fixed satellite services. Such a system is typically manufactured (phase C/D) and installed on site within 24 months. Secondly, the three parallel networks need be installed in three separate nations around the world thereby suggesting three contributors to the financial load of the Paxsat system. The program schedule is typical of a similar ground control network proposed for a future earth resource mission requiring 12 months of phase A activities, 18 months of phase B activities and 30 months of phase C/D activities.

(c) Space Segment

The Space Segment schedule illustrated in Figure 8-2 is characteristic of a typical satellite program. One year of Phase A activities followed by approximately two years of Phase B activities is typical of a spacecraft program. A six-month prestart on Phase C/D activities is characteristic of the jump start commercial spacecraft contractors employ to meet schedule constraints imposed by the spacecraft buyer community. A well-defined spacecraft system can be manufactured, integrated, and tested within a 36 month period. In the schedule illustrated for the Paxsat spacecraft, an additional 6 month period is allowed for the building of the first spacecraft to account for unforeseeable events that may delay normal program integration and test procedures. The learning curve phenomenon indicates that subsequent spacecraft could be built, integrated, and tested in the more usual length of time. Spacecraft deliveries can typically be staggered on 4 month centers depending upon the integration facility at the selected contractor. Finally, a 4 month launch campaign is assumed for each of the flight spacecraft.