

NEW TDMA INFRASTRUCTURE FOR INTELSAT

INTELSAT's 120-Mb/s TDMA networks, in operation since 1984 in the Atlantic and Indian Ocean Regions, are used by major telecommunications carriers to transmit public telephone services worldwide. COMSAT Laboratories is currently developing a new TDMA infrastructure (NTI) system that will allow INTELSAT to manage these networks more easily and replace existing equipment that is nearing the end of its useful lifetime. With the new equipment and software provided by COMSAT, INTELSAT will be able to schedule time for occasional-use customers much faster, automate many aspects of network administration, and more than double the number of customer terminals that can access each network. These innovative capabilities will result in significant cost savings and increased revenue for INTELSAT.

Elements of the NTI system include:

TDMA Control and Management System (TCMS)

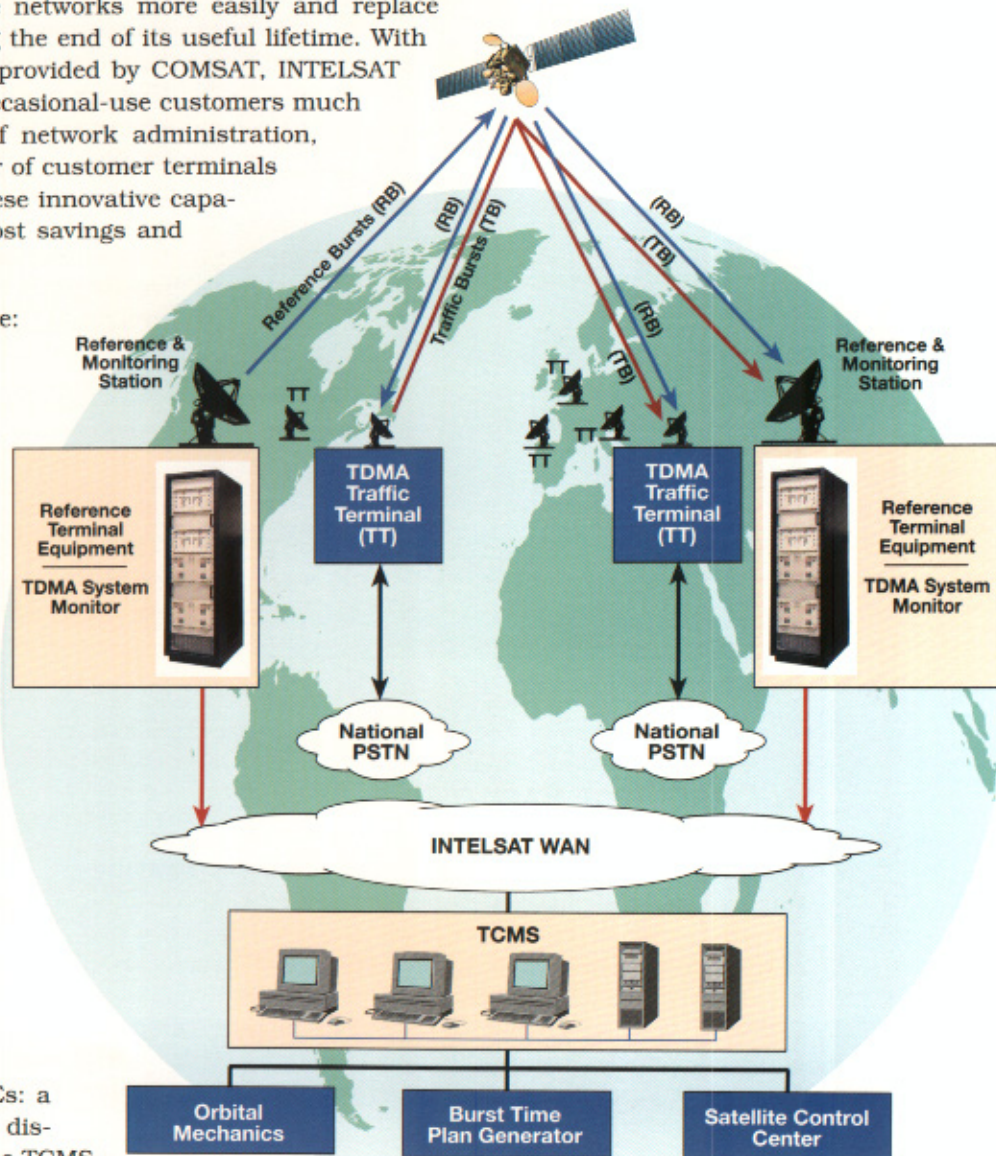
The TCMS interfaces with the INTELSAT resource planning and spacecraft operations infrastructure to serve as a global network control and management facility. Use of the TCMS enables INTELSAT to control its networks remotely—from its headquarters in Washington, DC—rather than from the four separate earth stations currently used.

Reference Terminal Equipment (RTE)

Each TDMA network has two RTEs: a primary and a backup. The RTEs distribute control information from the TCMS to the traffic terminals and provide a timing reference (such as a master clock) that permits each terminal to synchronize transmission.

TDMA System Monitor (TSM)

This equipment monitors all traffic terminals to assess the transmission quality from each earth station.



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