



MAJOR PROGRAMME 3:

Communications

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“...Transmitting International Monitoring System data (raw or processed) to the International Data Centre by the most direct and cost-effective means available...”

(ARTICLE IV, PARAGRAPH 19)

This Major Programme, which is managed by the Global Communications Section of the IDC Division, has as its main component the transport of data from the facilities of the IMS to the IDC in Vienna through the Global Communications Infrastructure. The GCI also provides for the distribution of IMS data and IDC products from the IDC to States Signatories, as well as transport of ancillary data.

GCI MANAGEMENT

The Global Communications Section was reorganized in 2000 to focus resources more efficiently on two major components: installation and operations. To improve the installation process, a quality management system for VSAT installations was developed, documented and tested, with promising results.

In May, an amendment to the long term GCI contract was signed to accommodate the extended VSAT installation schedule, consolidate the management of installation and maintenance of the GCI, and strengthen the GCI service level agreement.

GCI TOPOLOGY

The PTS received a request from the USA to change its network topology from an independent subnetwork to the basic topology. A plan was developed to initiate the change order to the GCI contract and begin the implementation.



Following adoption by the Preparatory Commission of a model agreement/arrangement relating to the implementation of an independent subnetwork between governments and the Commission, the PTS began contract discussions with those States Signatories which have selected the independent subnetwork topology. The first such arrangement was signed towards the end of 2000. The model agreement sets out the procedures and the terms and conditions whereby the PTS will pay allowances to States which have opted for their own independent subnetworks.

GCI IMPLEMENTATION

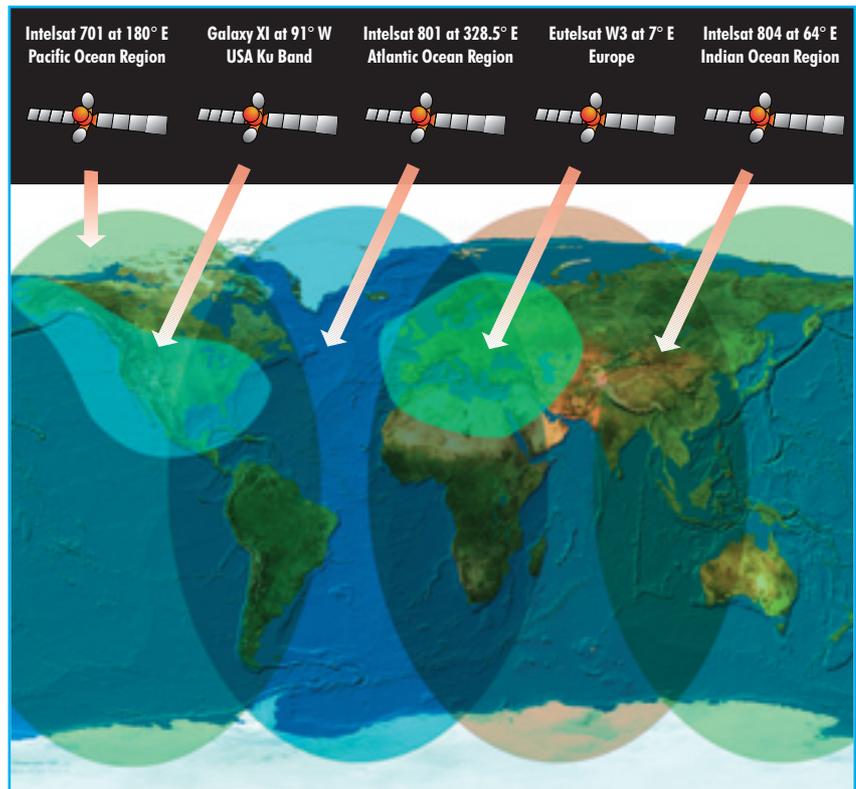
Further implementation of the GCI in 2000 included the installation of a new VSAT hub to provide Ku band coverage in the USA. In total, 44 VSAT stations had been installed as of 31 December, with 19 having been completed in 2000. A total of 107 GCI site surveys had been completed, 70 of them in 2000.

Problems in licensing of VSAT operations continued to be a significant hindrance to the implementation of the GCI. A number of licences were obtained following WGB deliberations and bilateral discussions between the PTS and States Signatories, but many licence applications remain problematic, in some instances owing to commercial interests in host countries.

The GCI design was enhanced with the inclusion of edge routers at NDC and IMS remote sites, to provide for the security of the GCI and to ease the network implementation constraints on the States Signatories. All new installations will include the routers, and a programme is under way to retrofit all 27 previously installed sites. Retrofits have been completed at 13 of these sites.

Development of the various services within the GCI system proceeded throughout 2000. Improvements to the network management system continued. The GCI contractor initiated implementation of a more comprehensive call tracking system to improve the reporting of incidents and corrective actions taken. Issues related to routing and addressing communications throughout the GCI were dealt with, and conclusions are expected during 2001. GCI performance metrics and proposed reporting formats were presented to WGB, and work to implement these will continue into 2001.

At the request of WGB, the Global Communications Section undertook two studies to assess the possibilities for sharing the GCI with third parties and forwarding to States Signatories data for IMS stations which they host. These studies were completed and the results



presented to WGB. Experiments to verify the concept of data sharing began, and several States expressed interest in data forwarding.

Continuing performance problems in the Pacific Ocean region were urgently addressed with the GCI contractor. By the end of 2000, it appeared that substantial progress had been made towards correcting these problems. A longer period of stability, to be followed by a specific set of performance tests, will be required by the PTS in order to conclude that the technical issues have been resolved. The PTS is continuing to work with the contractor to resolve the management and logistical issues, which, in the view of the PTS, were the root causes of the performance problems.

GCI WORKSHOP

A workshop on GCI Related Topics was held from 2 to 4 October in Vienna for the purpose of training and for technical discussion of the GCI. There were 64 participants representing 12 States Signatories, the GCI contractor and its subcontractors, and the PTS. The presentation topics included GCI performance measurement, data forwarding, disaster recovery, operations licensing, and comparison of the GCI with other communications networks. Valuable input was provided to the PTS by the workshop participants.