four lines were operational, with only very short breaks, throughout the duration of GSETT-2, with one exception: the line between Canberra and Washington broke on 2 June and was not available for four days. Alternative routings via PSDN and Internet were established, however, and all the data were successfully transmitted, although with some delay.

The Washington Communications Hub and the Stockholm Communications Node were particularly important elements in the inter-EIDC network, as they facilitated data exchange and interconnected NDCs and EIDCs through a variety of communications links. The Washington Communications Hub provided a communications gateway in Europe through the Zurich Node. On a daily basis, the Washington Communications Hub produced and distributed to all participants a "traffic report", listing all messages that had been exchanged. Figure 5.1 shows the inter-EIDC links, and also the links used by the NDCs to transmit data to the EIDCs.

No general communications technique was adopted for the inter-EIDC network as a whole. Rather, it was decided to test simultaneously systems using different methods to ensure proper routing of messages. A set of rules was developed that defined how the various components of the systems were to interact with each other.

Considering the complexity of the inter-EIDC network and the different communications methods used, it is fair to state that the inter-EIDC network worked very well during Phase 3 of GSETT-2. Only very few of the problems encountered in the course of GSETT-2 could be associated with failures in components of this network.

More details on the inter-EIDC network are given in the appendices.

The total cost (no manpower costs included) incurred by the four EIDCs for establishing and operating the inter-EIDC network through Phases 1, 2 and 3 of GSETT-2 was approximately US$ 1 million.

5.4 Data formats and volumes, reliability and timelinesss

The Ad Hoc Group developed a common format for data and messages that were exchanged during GSETT-2. This format is well documented in Conference room paper 190/Rev.4. Since this format had already been used throughout the preparatory tests, only a few countries had difficulties adhering to it during Phase 3. These were mainly countries that had not participated in GSETT-2 prior to Phase 3.

The total volume of data received by each of the four EIDCs during Phase 3 of GSETT-2 was approximately one gigabyte. The total amount of data submitted by all the NDCs varied from 12 to 29 megabytes per data day. In an appendix, the distribution of this total volume among the originating NDCs and EIDCs is tabulated. The table gives the total number and volume of messages sent from each NDC, and the corresponding number and volume of messages received by each of the four EIDCs. Also given are figures for the messages generated by each of the four EIDCs and sent to the other EIDCs.