



iii. FIELD COMPUTER SYSTEM III

The Field Computer System (FCSIII) provides trace sequential recording of up to 480 channels of seismic data at a 1 millisecond sample rate. It contains the necessary circuitry to receive, store, format, write to magnetic tape, digitally check and reproduce read-after-write records.

The FCSIII is divided into five major rack mounted subsystems plus peripherals. They are the Gould 32/2705 Computer, Gould I/O Expansion, Zitel Mass Memory, Amplifier Control and Read After Write Monitor / Digital Data Checker.

The recording system receives the seismic data from the Streamer Control System (SCS) via Ethernet links. The data may then be resampled to 2 or 4 milliseconds, if required, prior to formatting and demultiplexing. Trace headers are applied prior to writing data from mass memory to tape. The recorder initiates recording by first writing the record header and then pulling the seismic data on a trace by trace basis from mass memory and writing these in trace sequential format on tape. The mass memory stores data in one buffer while data is extracted from the other and recorded on tape.

Three 6250 BPI tape transports are utilised with the computer automatically switching transports when a tape is full or an error condition develops. These units operate in a fully read after write mode permitting quality checking of the data all the way to tape. The recorder selects, remultiplexes and displays two channels for scope display. A single read-after-write scope display of all channels being written to tape is also available.