



xi. TIGER II SYSTEM DESCRIPTION

The Texas Instruments airgun Controller (TIGER II) is a micro-processor based unit that supervises all timing, firing and control functions for the airgun array.

The Tiger II monitors the shuttle pulse of each airgun and continuously adjusts individual gun firing times to synchronise the array to within a one millisecond standard deviation, thus ensuring optimum pulse amplitude and front to back ratio for the array.

A fire sequence is initiated on receipt of wire blast from the FCS. The Tiger II returns Field Time Break (FTB) to the recording instruments and fires the guns a nominal 51.2 Msec. later. When used with a digital streamer, the Tiger II synchronises FTB with the sample interval of the digital streamer data. This synchronisation function is called "multiplex streamer mode".

The Tiger II may be operated independently in stand-alone mode, or in computer mode via a link to the CMS III. Stand-alone mode enables all normal gun control functions to be implemented from the front panel keyboard. The airgun array is unaffected by the selection of stand-alone mode, insofar as performance is concerned, although performance monitoring is limited.

The computer mode link to the CMS III facilitates data logging of individual gun performance in real-time, as well as the production of graphically presented performance statistics at the end of the line.