calibration constant of 12 msecs. Since fathogram readings were in terms of water depth from the surface, this emperical value included an adjustment for the depth of the energy source and depth of the geophones.

The total static correction applied for a given data trace is the C computed for the shot location plus the C computed for the receiver location.

D. EXPERMENTAL and OTHER PROCESSING

1. M-5 Processing

In order to optimally define velocity relationships and to identify and eliminate multiple reflections, it was initially planned to process a network of selected lines through the M-5 space-time varying processing package. However, after several experimental attempts it was found that the M-5 package was unsuited for processing in this area.

The M-5 system is not set up to allow sufficiently frequent variations of many parameters which must be varied in processing marine data with large and rapid variations in water depth.

The principal factor that prevented utilization of M-5 processing was that this system applies water replacement statics before the final residual normal moveout corrections. Large statics at this stage had the effect of destroying the true $T - \Delta T$ relationships.

2. Time Invariant Deconvolution versus Time Variant Deconvolution.