Final Zoning for
OPR-G311-WH-97
Approaches to Brunswick, GA
Zone GA15
Time Corrector 18mins
Range Corrector X1.12
Reference 8720030

Zone GA16
Time Corrector 0mins
Range Corrector X0.91
Reference 8720030

Zone SEC181
Time Corrector -24mins
Range Corrector X0.96
Reference 8720030
G.6 Tide Correctors

a. The tidal datums for this project are Mean Lower Low Water (MLLW) and Mean High Water (MHW). Soundings are referenced to MLLW. Heights of bridges and cables are referenced to MHW. The operating tide station at Fernandina Beach, Florida (872-0030) served as control for datum determination.

b. Tidal zones are controlled by one primary gauge, Fernandina Beach, Florida (872-0030). Due to the limitations of HPS and for ease of data processing, the following zone correctors were applied to all F00436 data using the predicted tides utility in HPS. All proper zones will be applied through HPS upon receipt of approved tides from N/CS41. See following page for location of zones GA16, GA15 and SEC181.

<table>
<thead>
<tr>
<th>Zone</th>
<th>&quot;FE-1of3&quot;</th>
<th>&quot;FE-2of3&quot;</th>
<th>&quot;FE-3of3&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference #</td>
<td>872-0030</td>
<td>872-0030</td>
<td>872-0030</td>
</tr>
<tr>
<td>Time Corrector</td>
<td>0 minutes</td>
<td>18 minutes</td>
<td>-24 minutes</td>
</tr>
<tr>
<td>Range Corrector</td>
<td>X0.91</td>
<td>X1.12</td>
<td>X0.96</td>
</tr>
</tbody>
</table>

Approved tides for F00436 were requested from N/CS41 in a letter mailed and dated December 4, 1997. Approved tides and zones have been partially applied during office processing.

The WHITING and its launches employed no unusual or unique methods or instruments to correct echo soundings.

All sounding correctors were applied to both the narrow (100 kHz) and wide (24 kHz) DSF-6000N beams. Zoning for this project is consistent with the Project Instructions.

H. CONTROL STATIONS

The horizontal datum for this survey is the North American Datum of 1983 (NAD 83). No horizontal control stations were established for this survey.