Bar Check and Lead Lines

Bar check and lead lines were calibrated by RAINIER personnel on February 19, 1993 at PMC. Calibration forms are included with the project data for OPR-P125-RA.

Tide Correctors

The tidal reference station used for this survey was Cordova, Alaska (945-4050). Tidal correctors as provided in the project instructions for sheet N are:

<table>
<thead>
<tr>
<th>Time Correction</th>
<th>Height Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Water</td>
<td>Low Water</td>
</tr>
<tr>
<td>0 hr 0 min</td>
<td>0 hr 0 min</td>
</tr>
<tr>
<td>Range Ratio</td>
<td>X0.96</td>
</tr>
</tbody>
</table>

HDAPS listings of the data used in generating tide corrector tables are included in Appendix V of this report.

Tide gages were installed and maintained by RAINIER personnel at Storey Island, Alaska (945-4553), and Olsen Island, Alaska (945-4596). The control station was Valdez, Alaska (945-4240). Opening levels for the Valdez station were completed by the Pacific Operations Section. Requirements for closing levels were waived in Change No. 1 of the Project Instructions. Bracketing levels for the field gages were run at the end of September.

The station descriptions, field tide records, and Field Tide Notes will be forwarded to N/OES212 monthly in accordance with HSG 50 and FPM 4.3, and at the end of the project. Requests for approved tides will be forwarded to N/OES2.

H. CONTROL STATIONS

A listing of the geodetic stations used to control this survey is included in Appendix III of this report.

Positions for all existing stations are from the National Geodetic Survey (NGS) data base. All existing stations were recovered in accordance with methods stated in Section 5.2.4 of the Field Procedures Manual. Further information can be found in the "Full 1993 Horizontal Control Report for OPR-P125-RA."

I. HYDROGRAPHIC POSITION CONTROL

Method of Position Control

All soundings and features were positioned using differential GPS. System checks were performed by launch to launch comparisons of positions corrected from two independent differential GPS stations. Serial numbers for Ashtech GPS equipment are annotated on the data printouts.