



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Office of Ocean and Earth Sciences  
Silver Spring, Maryland 20910

ORIGINAL

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: August 18, 1993

MARINE CENTER: Pacific

OPR: O136

HYDROGRAPHIC SHEET: H-10459

LOCALITY: Cleveland Passage, Stephens Passage, Alaska

TIME PERIOD: March 20, 1993 - March 31, 1993

TIDE STATION USED: 945-1785 The Brothers, Alaska  
Lat.  $57^{\circ} 17.7'N$  Lon.  $133^{\circ} 47.8'W$   
PLANE OF REFERENCE (MEAN LOWER LOW WATER): = -0.88 feet  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: = 13.8 feet

TIDE STATION USED: 945-2210 Juneau, Alaska  
Lat.  $58^{\circ} 17.9'N$  Lon.  $134^{\circ} 24.7'W$   
PLANE OF REFERENCE (MEAN LOWER LOW WATER): = 4.34 feet  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: = 15.3 feet

REMARKS: RECOMMENDED ZONING

1. In Stephens Passage (except Cleveland Passage) times and heights are direct on The Brothers, Ak. (945-1785). Data from the back-up gauge at The Brothers (945-1786) is used. When data for The Brothers are not available, apply a -6 minute time correction and a x0.90 range ratio to Juneau, Ak. (945-2210).
2. In Cleveland Passage times are direct and apply a x0.98 range ratio to The Brothers, Ak. (945-1785). Data from the back-up gauge at The Brothers (945-1786) is used. When data for The Brothers are not available, times are direct and apply a x0.91 range ratio to Juneau, Ak. (945-2210).

NOTE: Hourly heights for The Brothers are tabulated on Greenwich Mean Time, whereas, hourly heights for Juneau are tabulated in Alaska Standard Time.

*William M. Gibson*  
ACTING CHIEF, DATUMS SECTION

