

U.S. Department  
of Transportation

United States  
Coast Guard



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USCG-98-3385217

16000  
03/04/99

From: Commanding Officer, Marine Safety Office Valdez, AK  
To: COMMANDANT (G-MOV)  
Via: Commander, Seventeenth Coast Guard District (mon)

Subj: PORT ACCESS ROUTE STUDY FOR PRINCE WILLIAM SOUND

1. Enclosed is the Port Access Route Study for Prince William Sound dated 04 March 1999. This study was completed following a Notice of Study published in the Federal Register on 09 February 1998. Much of the data incorporated in this study, was gathered from other recent studies such as the Prince William Sound Risk Assessment and Disabled Tanker Towing Study.
2. My desire is for Headquarters to review the material submitted, request for any supplemental data that is required, and submit a proposal to IMO no later than 25 June 1999. I understand that IMO meets on 25 September, and I strongly desire to meet the 90-day submission deadline. A Notice of Study Completion incorporated within the Federal Register will also be needed, however I anticipate that this will only require a 30-day comment period, as all of the changes recommended here have been discussed at local public meetings and were outlined in the original Notice.
3. The maritime users of Prince William Sound have been very vocal concerning their desired waterway improvements and this information has been captured here. My point of contact for any additional information you require is LT Chris Holmes at (907) 8357209.

A handwritten signature in black ink, appearing to read "RJM/96".

R. J. Morris

U.S. DEPARTMENT OF TRANSPORTATION  
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15 Apr 99

FIRST ENDORSEMENT on MSO Valdez ltr 16000 of 04 Mar 99

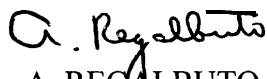
From: Commander, Seventeenth Coast Guard District  
To: Commandant (G-MOV)

Subj: PORT ACCESS ROUTE STUDY FOR PRINCE WILLIAM SOUND

1. I recommend that modifications (a), (b), and (c) to the Prince William Sound vessel traffic system be approved. Clearly these modifications will make the Prince William Sound waterway a more efficient and viable marine transportation system. There is no clear consensus regarding the benefits of removing the traffic separation zone in Valdez Arm as proposed in modification (d). Consequently, I do not recommend the approval of this modification. Adoption of modification (d) could potentially increase the risk of collision between ships.

2. The endorsed modifications are supported by three years of studies. MSO Valdez developed their final recommendations in cooperation with Prince William Sound waterway users.

3. I know that our staffs have discussed the time-critical nature of this proposal. I appreciate your willingness to forward it to IMO prior to the 25 June deadline. My point of contact in this matter is LT John Bryant who may be reached at (907) 463-2264.

  
A. REGALBUTO  
Chief of Staff

Copy: CG MSO Valdez

# Port Access Route Study Prince William Sound, AK

Completed By: USCG MSO Valdez

04 March 1999

To: COMMANDANT, Coast Guard (G-MOV)  
Via: Commander, Coast Guard District Seventeen (mon)

*Summary of Contents:*

1. Background and Purpose.
2. Maritime Trends and Analysis Overview.
3. Summary and Conclusions.
4. Recommendations for Notice of Proposed Rulemaking.
5. List of Enclosures.

## 1. Background and Purpose.

In recent years, many waterway users of Prince William Sound, most notably oil shippers have expressed a desire to modify the existing Traffic Separation Scheme in an effort to employ all possible risk reduction measures while improving overall waterway efficiency.

On December 15 1996, the Prince William Sound Risk Assessment Steering Committee received the final report of an analysis of Oil Shipping Risk within Prince William Sound. This study specifically focused on Oil Transportation, however all facets of maritime commerce and private vessel usage were reviewed to fully understand vessel interactions. An excellent description of this is provided in enclosure 2. Previous to this analysis, The Disabled Tanker Towing Study was completed in August of 1994. Both of these analysis studies are referenced within this document.

The combination of a desire to improve the waterway, coupled with the completion of the Prince William Sound Risk Assessment has led to this Port Access Route Study outlined in enclosure 1. The purpose of this study is to evaluate the need for modifications to current vessel routing and traffic management measures in the approaches to and departures from Prince William Sound and within Prince William Sound. In reality, what everyone wants is an opportunity to make all Traffic Scheme changes that improve Traffic Management now under one rulemaking.

During this study, the main interface with waterway users was the VMOC (Valdez Marine Operators Committee). This group is comprised of individuals who represent the interests of local Commercial Shipping and Industry; as well as members from the Regional Citizens Advisory Council, State of Alaska, and U. S. Coast Guard. Meetings are conducted every other month. During the entire study process, members of the group were encouraged to provide written comments. A final presentation on the findings of this study was presented on 02 March 1999 to the group, and was met very favorably by all members.

## 2. Maritime Trends and Analysis Overview:

The trends expressed in enclosure 2 have not significantly changed since publishing in 1996. However, minor changes have taken place including the following: Several new Escort Vessels have replaced others in the ALYESKA/SERVS fleet, and several tankers have been removed from service. In addition, ALYESKA began operation of a Vapor Control Recovery Loading System in March 1998. This system is functional on berths 4 and 5 of the Trans-Alaska Pipeline Terminal. Originally, it was thought that Vessel Traffic congestion would result, due to the preference of shippers to utilize these berths, however most delays seem minimal and Knowles Head Anchorage remains adequate for loitering vessels.

Cruiseships continue to visit Valdez during the summer months(May through September) with several new vessels engaged in this trade. Cruiseship traffic continues to grow in direct proportion to the increase in tourism throughout Alaska. An updated list of cruiseships with visits to Prince William Sound and the Port of Valdez during 1998 is provided as enclosure 7. Cruiseships frequently do not follow the Traffic Lanes within Central Prince William Sound. Typically, cruiseships transit through Montague Strait up the west side of Prince William Sound to College Fiord. Those vessels which make a port call in Valdez join the existing Traffic Lane in the Valdez Arm.

Fishing Vessels, most notably seiners continue to harvest salmon during the summer. The Coast Guard Vessel Traffic Center has gone to great efforts to educate all mariners in ways to share the waterway. Radio procedures have been established to further disseminate information to fishing vessels participating in openers. Although the Valdez Narrows still poses the greatest possibility for fishing vessel vs commercial vessel traffic conflicts, the prevailing attitude is one of cooperation among parties. There were virtually no instances of fishing vessel conflicts this past year and only one minor conflict in 1997 where an inbound tankers progress was hindered.

Recreational boating opportunities continue to abound within Prince William Sound. The areas of operation for these vessels are not predictable and generally follow current fishing trends. Charter vessels fish for Halibut in the vicinity of Cape Hinchinbrook, and opportunities for Salmon abound within the port. Kayak pleasure craft also make frequent excursions to nearby glaciers and recreational sites, however their transits typically follow close to shoreline.

Logging activity within Prince William Sound has virtually ceased, and there are no known plans for mineral development within the sound or approaches. There are also no known plans for dredging operations within Prince William Sound.

The economic impact of any changes to the existing traffic separation scheme seems minimal. Although there would be a small savings to industry due to a shorter transit time if the southern Dog Leg is removed, no other impact seems apparent.

### 3. Summary and Conclusions:

There are several opportunities for waterway improvements within Prince William Sound. Most notably would be the removal of the **Southern Dog Leg** within the Central Sound. Although records were not found, it is believed that the existing bend in the TSS stems from a Tanner Crab Fishery that existed in the central sound years ago. This fishery has been exploited and is no longer in existence. Virtually all comments received recommended removing this bend in the TSS and replacing it with straight departure/approach to/from the Bligh Reef Pilot Station. Enclosure 5 further supports this as stated: "The results of the analysis show that removing the southern dog leg produces a small, but not significant reduction in overall system risk." It further states: "The removal of the dog leg decreases the length of the transit in PWS and therefore reducing exposure time in the system. The slight reduction in risk predicted by the system simulation is primarily due to this reduced exposure time." Furthermore stated: "The change also produces less delay in the system resulting in a smoother traffic flow and a slight reduction in traffic congestion which produces a slight reduction in predicted risk of collision." Enclosure 6 states "The minimum distance from the center southbound traffic lane to Naked Island is approximately 6 n.m. If the Dogleg were removed, then the minimum distance to Naked Island would be approximately 9 n.m. Dogleg removal provides a small improvement in preventing the drift of a disabled 265,000 DWT into the red zone off Naked Island in the modeled worst case wind and wave climatology." It goes on to state that there would be no difference for smaller tankers.

Establishment of a Precautionary Area at the Bligh Reef Pilot Station also makes sense. Although this area is not heavily congested, it poses several unique challenges. The area is frequently impacted by Columbia Glacier outflows making safe navigation more difficult. It is also an open water area providing little weather protection for pilots embarking and disembarking vessels. Vessels are occasionally required to alter course to provide effective leas for pilot boats. Complicating matters, it also is a convergence area for State Ferry's bound from/to **Cordova** and Whittier via Valdez, is a convergence point for Cruiseships **enroute** Valdez from the College

Fiord area, and is the pilot embarking/disembarking area for Tankers. Although the risk assessment does not address risk reduction for this matter, it is probable that implementation of this measure would reduce overall risk for all vessels concerned.

The establishment of a precautionary area with Traffic Lanes SE of Cape Hinchinbrook also has been met with favorable comments. The idea stems from BP chartered tankers who have adopted this route in an effort to avoid a transit off the Copper River Flats Delta. At an area approximately 6 miles SE of Cape Hinchinbrook, these tankers depart the safety fairway and proceed on the course outlined in enclosure 8. If they are bound for a foreign port, they are tracked by Coast Guard District Seventeen in Juneau via inmarsat after their clearance through Cape Hinchinbrook Entrance. These vessels return from these destinations on nearly a reciprocal course. The VTS only has the ability to monitor Tankers off Cape Hinchinbrook via AIS. A precautionary area is deemed a prudent risk reduction measure as this area has the potential for congestion like the Valdez Narrows.

Removal of the separation zone within the Valdez Arm is also recommended. Traffic in and out of the Valdez Narrows is relatively light and monitored by the VTS via both Radar at Potato Point, and through AIS installed aboard tankers and other select vessels. Ice conditions are also found in this area as Columbia Glacier calves sending bergs of various sizes from Columbia Bay into this area. For this reason, the VTS frequently imposes "Custom Ice Routing Measures" where in effect a one way zone exists. Many vessel masters, most notably tanker masters have stated that they would like to have more access to the center of the waterway when no other vessels are on opposing courses. It has been stated that as in the Port of Valdez, Traffic Lanes are not necessary. This is further supported by enclosure 6 where stated: "the simulations in the worst case climatology show the need for increasing the sea room between the outbound track and Buoy 9 near Pt. Freemantle." This modification would improve safety as vessels would be allowed the opportunity to stay as far off shoal water as possible. Although the probability of a powered grounding is minimal, should a Tanker become disabled the extra time afforded rescue vessels would be critical in saving a tanker before a drift grounding occurred. Furthermore, as a preventative measure, masters could use prevailing weather conditions and ice conditions to determine the safest track for their vessels, allowing for safe passage through ice and distance off the lee shore. In turn, the VTS continues to provide the external vigilance necessary to oversee safe vessel transits and disseminate traffic conditions.

#### 4. Recommendations for Notice of Proposed Rulemaking:

After completion of this Port Access Route Study, the study group recommends the following modifications to the existing Traffic Scheme:

- a. Remove the Southern Dog-leg.
- b. Establish a Precautionary Area at the Bligh Reef Pilot Station.
- c. Establish a Precautionary Area SE of Cape Hinchinbrook.
- d. Remove the Separation zone within the Valdez Arm.

The proposed modifications recommended in this study are provided on the chart as Enclosure 8. The study group wishes to thank NOAA, specifically Greg Norris for his assistance in generating the enclosed charts

5. List of Enclosures:

1. ✓ *Chart* Notice of Study Published in Federal Register dated February 9, 1998.
2. ✓ *Accession* Description of Prince William Sound Oil Transportation System.
3. VTS Prince William Sound Users Guide.
4. Prince William Sound Risk Assessment Final Report.
5. Prince William Sound Risk Assessment Task # 11.
6. Prince William Sound Disabled Tanker Towing Study Final Report, Part 2.
7. ✓ *Chart* List of Cruiseships visiting Prince William Sound in 1998 and VTS Transit Statistics.
8. ✓ *Chart* BP Revised Routing for Loaded Tankers outside Hinchinbrook.
9. ✓ Comments received during study period.
10. Proposed TSS Modifications on Chart #16700.
11. ✓ *Chart* Coordinates for Proposed TSS.
12. ✓ *Attachment* List of Points of Contact for the Study.



Enclosure 12 - List of Points of Contact for the Study:

Study Project Officer:	Captain Ron Morris, USCG Captain of the Port, Valdez, AK P. O. Box 486 Valdez, AK 99686 (907)835-7210
Study Author/Data Organizer:	Lieutenant Chris Holmes, USCG Chief, VTS Prince William Sound P. O. Box 486 Valdez, AK 99686 (907)835-7209
Coast Guard District Seventeen Liaison:	Lieutenant John Bryant Coast Guard District Seventeen(mov) P. O. Box 25517 Juneau, AK 99802 (907)463-2264
Coast Guard Headquarters Liaison:	Mrs. Barbara Marx COMMANDANT(G-MOV-3) 2100 Second Street, S. W. Washington, DC 20593-000 1 (202)267-0574
NOAA Charting Point Of Contact:	Captain Bob Pawlowski, NOAA NOS/Coast Survey Navigation Advisor for Alaska and Hawaii 222 West 7th Avenue #38 Anchorage, AK 995 13-7574 (907)27 1-3523  Greg Norris NOAA/Nautical Data Branch Silver Spring, MD 20910-3282 (301)713-2737, ext 124