

vessels. The proposed widening of both channels will greatly reduce the risk of navigational accidents. The reduction in risk would be reflected in reduced operating costs and would benefit the general public through reduced freight costs. Damages as reported by navigation interests that constitute the principal users of the waterway during the past 5 to 10 year period were as follows:

NAVIGATION DAMAGE EXPERIENCED IN SERGIUS AND WHITESTONE NARROWS

	Division of Marine Transportation	Alaska Steamship Co.	Salvor Towing Co.	Washington Tug & Barge Co.	Miscellaneous navigation companies	Total
Number of years in period.....	5	10	7	7	10	-----
Number of accidents in Sergius and Whitestone.....	1	2	1	1	4	15
Damage repair cost.....	\$39,520	\$300,000	\$40,000	\$47,500	\$40,000	\$467,020
Towing cost to repair point in Seattle.....	12,847	-----	15,000	15,000	40,000	82,847
Other incidental costs.....	-----	-----	-----	10,000	-----	10,000
Total cost of accident.....	52,367	300,000	55,000	72,500	80,000	559,867
Average yearly cost.....	10,500	30,000	7,900	10,400	8,000	66,800

As shown on this tabulation navigation damages averaged approximately \$66,800 annually. The proposed improvements will reduce accidents in Sergius and Whitestone Narrows by an estimated 75% or \$50,000 annually.

c. *Extra Cost Unloading Reductions*

The proposed improvements to Sergius and Whitestone Narrows will permit transit at any stage of the tide rather than being limited to slack tide periods. Ships can, therefore, be scheduled to arrive at port during regular working hours, thereby eliminating the extra charges levied for after-hours longshoring and other required services. The Alaska Steamship Company has estimated that after-hour arrivals at Sitka require on an average 1 hour of overtime service of the longshoremen for each ship arrival, a total additional charge of \$74 per hour. The State ferries have estimated their annual costs of late arrivals at \$15.82 per arrival. The average vessel arriving after-hours and requiring less longshoring service than the Alaska Steamship cargo vessels, is estimated to average \$10 per arrival for extra after-hour charges. These are summarized in the following tabulation:

OPERATING AND UNLOADING COST REDUCTIONS, OVERTIME AND STANDBY CHARGES, 1965

Item	Division of Marine Transportation	Alaska Steamship Co.	Other vessels	Total
Number of arrivals.....	123	51	210	384
Average overtime and standby charge per arrival.....	\$15.82	\$74.00	\$10	-----
Total extra charges.....	\$1,946.00	\$3,744.00	\$2,100	\$7,790
Benefits.....	\$1,946.00	\$3,019.00	\$2,100	\$7,065
Rounded.....	-----	-----	-----	\$7,100

As shown in the foregoing tabulation a total reduction in operating cost of approximately \$7,800 could be realized annually. It is estimated that extra costs incurred by Alaska Steamship would be reduced by 80%. An annual benefit of \$7,100 would be attributable to the proposed improvement.

d. *Channel Marker Damage & Maintenance Reduction*

The Sampson Tug and Barge Company, as a result of their log towing operations during 1963 and 1964, has paid out over \$6,000 for damage and loss to buoys marking the channels in these two Narrows. The buoy most frequently damaged is a lighted buoy marking West Francis Rock. The proposed improvement will remove the hazards and permit the removal of this buoy together with two buoys marking rocks in Whitestone Narrows. Reduced damage to buoys will create a general benefit in the amount of approximately \$2,500 annually.