

FUTURE VESSEL TRIPS

Indications are that vessels of the C1 and C2 class are being, and will continue to be, replaced by vessels of the C3 and C4 Mariner Class. Based on discussions with carriers, this will result in the vessel cubage factor increasing 20 percent by 1990 and leveling off at that figure thereafter. The average vessel lift is estimated to increase in direct proportion to the forecast of future vessel capacity. The resulting number of vessel trips at Humboldt Harbor by decade, 1970-2020, is given in the following table:

Future deep-draft dry-cargo vessel trips in Humboldt Harbor 1970-2020¹

Year:	Number of vessel trips
1970.....	255
1980.....	280
1990.....	300
2000.....	325
2010.....	335
2020.....	340

¹ Excluding trips carrying woodpulp.

FUTURE VESSEL TRIPS BY ACTUAL DRAFTS

The combined effect of two factors, the anticipated increase in the density of goods imported by presently underdeveloped nations, and greater design drafts of future vessel fleets, is estimated to result in an average 4-foot increase in the inbound and outbound drafts at Humboldt Harbor by the year 2020. The vessel trip distribution by actual drafts over the 50-year study period was developed by plotting the current inbound and outbound drafts against vessel trips (expressed as a cumulative percentage), then displacing the curve four feet to represent conditions in the year 2020. Data for intervening decades were interpolated. The resulting projections of trips by vessel draft are given in the following table.

DISTRIBUTION OF DRY-CARGO VESSEL TRIPS BY VESSEL DRAFT IN HUMBOLDT HARBOR, 1970-2020

[Number of trips, inbound and outbound]

	1970	1980	1990	2000	2010	2020
Actual vessel draft (feet):						
20 or less.....	112	99	80	58	38	10
21.....	26	28	30	33	33	34
22.....	26	28	30	33	33	34
23.....	26	28	30	33	33	34
24.....	22	28	30	33	33	34
25.....	18	22	30	33	33	34
26.....	12	17	24	33	33	34
27.....	8	11	15	19	27	31
28.....	3	6	9	16	20	27
29.....	1	4	6	9	14	17
30.....	1	4	6	9	14	17
31.....	0	3	5	6	11	14
32 and more ¹	0	2	5	10	13	20
Total.....	255	280	300	325	335	340

¹ Will take place with improved conditions only.

FUTURE BARGE AND TANKER TRIPS

Existing channel depths are sufficient to accommodate lumber barges which have drafts of 18 feet or less. Inbound drafts of the 5,000-13,000 DWT (Dead Weight Tonnage) tankers now calling at Humboldt Harbor range from 18 feet to a maximum of 27 feet. Since it is unlikely that the inbound drafts of future tankers will exceed 27 feet in the foreseeable future, benefits to tank-ship operators due to channel deepening will be insignificant.

FUTURE VESSEL TRIPS CARRYING WOOD PULP

Based on information furnished by the pulp mill owners, the estimated distribution by draft of vessel trips carrying wood pulp from Humboldt Harbor for the period 1970 to 2020 is given in the following table.