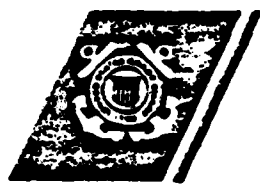


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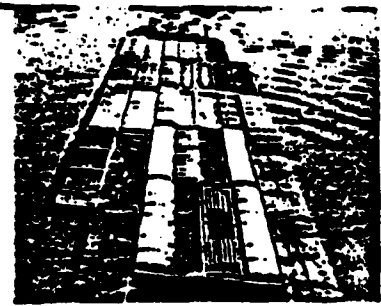
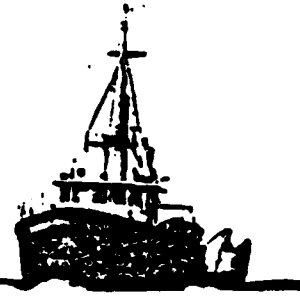
Marine Safety Statistical Review



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COMDTINST M16700.2
31 JUL 1979

COMMANDANT INSTRUCTION M16700.2

Subj: Marine Safety Statistical Review

- PURPOSE.** The Marine Safety Statistical Review contains information compiled from four mission areas that operate under the direction of the Office of Merchant Marine Safety: Commercial Vessel Casualty Investigation, Inspection of the United States Commercial Vessels, Vessel Documentation, and the Examination of Foreign Flag Tankships. Statistics are based upon information available for each area as of 1 January 1979.
- AVAILABILITY.** This publication is available to the public through the National Technical Information Service.
- CHANGES.** It is anticipated that information contained in this publication will be updated annually. Any comments concerning the scope, format, or other particulars which will make future editions more useful should be addressed to:

Commandant (G-MA/TP25)
U. S. Coast Guard Headquarters
Washington, D. C. 20590

Henry H. Bell
HENRY H. BELL
Chief, Office of Merchant Marine Safety



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FORWARD

The following statistics have been generated from a number of data files either managed or accessed by the Information and Analysis Staff, G-MA/TP25, of the Office of Merchant Marine Safety, U. S. Coast Guard Headquarters. The information is provided both as a general description of the various Merchant Marine Safety mission areas and as a means of stimulating further interest in additional information of a more specific nature.

Considering the general format of the information provided herein, the reader is cautioned against using the contents as any more than an indicator of magnitudes or as a guide to areas worthy of intensive research. The Information and Analysis Staff can provide more specific and explanatory information upon request. In addition, the U. S. Coast Guard is not responsible for incorrect interpretations of the statistics due either to a misunderstanding of the various mission areas and their responsibilities or as a result of errors or shortcomings in the automated databases.

Sections I and II of this booklet deal with the Commercial Vessel Casualty Reporting System. The sources for this information are the Report of Vessel Casualty or Accident, CG-2692, the Report of Personnel Injury or Loss of Life, CG-924E, and the accompanying investigative reports.

A casualty is required to be reported to the U. S. Coast Guard whenever any of the following occur:

- a. Actual physical damage to property in excess of \$1,500.
- b. Material damage affecting the seaworthiness or efficiency of a vessel.
- c. Stranding or grounding. (With or without damage.)
- d. Loss of life.
- e. Injury causing any persons to remain incapacitated for a period in excess of 72 hours; except injury to harbor workers not resulting in death and not resulting from vessel casualty or vessel equipment casualty.

The automated casualty files, which date back to fiscal year 1963, contain more than 72,000 vessel and 17,000 personnel records. In addition to Coast Guard usage, information is regularly provided to other government agencies as well as the private sector.

Section III contains information concerning vessels inspected by the Coast Guard under Title 52 of the Revised Statutes of the United States. The file, which presently contains over 10,000 active records, is not historical in nature. It is updated monthly as information is received at USCG Headquarters. The primary information source is the Certificate of Inspection, CG-4678. The file is used to compile the "List of Inspected Tank Barges and Tankships" which is published semiannually.

Section IV statistics are derived from the documented vessel file maintained by the Merchant Vessel Documentation Division at USCG Headquarters. This file is used to generate the annual publication of "Merchant Vessels of the United States", CG-408. The data base currently contains approximately 112,000 records.

Section V presents several tables and graphs which indicate the scope of the Foreign Flag Tank Vessel Examination Program, which was expanded in January 1977. The data base contains over 4,000 records of examination to date. Information is drawn from the Tank Vessel Examination Letters that are forwarded to the Merchant Vessel Inspection Division at USCG Headquarters.

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**VESSEL CASUALTIES
CASUALTY NATURE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
COLLISION	471	454	497	513	577	660	547	646
RAMMING	643	631	765	691	757	879	716	882
GROUNDING	603	538	657	793	786	1,130	1,067	1,027
FIRE/EXPLOSION	176	170	149	180	206	285	214	210
FLOODING	18	24	51	62	86	102	74	109
FOUNDERING	27	23	29	124	302	389	305	344
CAPSIZING	48	38	61	63	49	73	35	70
MATERIAL FAILURE	494	486	751	745	401	428	499	854
OTHER	95	58	156	207	139	264	117	126
TOTAL	2,575	2,422	3,116	3,378	3,303	4,210	3,574	4,268

* FIFTEEN MONTH REPORTING PERIOD

**VESSEL CASUALTIES PRIMARY CAUSE VS. FISCAL YEAR
(ALL VESSELS INVOLVED)**

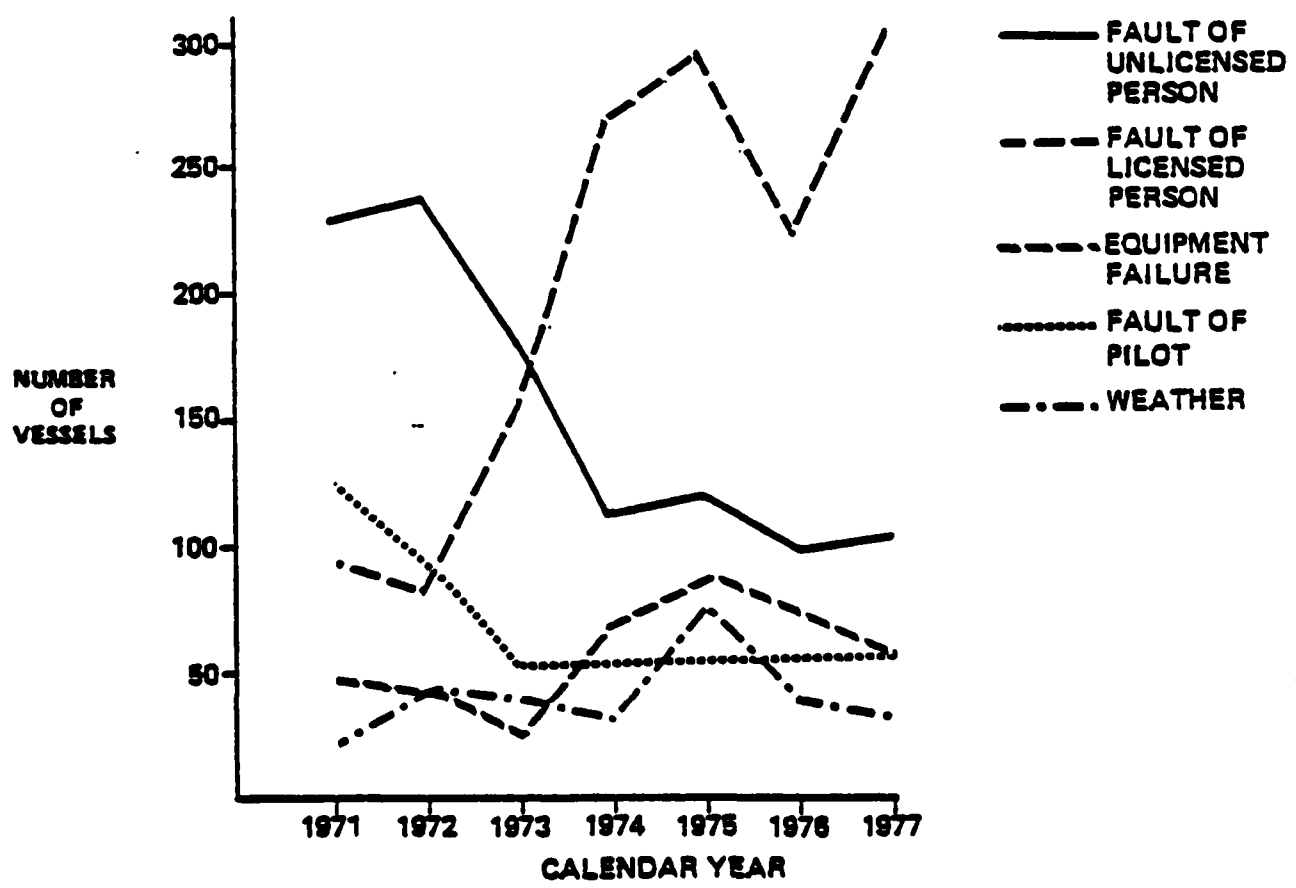
	1971	1972	1973	1974	1975	1976	1977	1978
PERSONNEL FAULT	1,333	1,386	1,440	1,544	1,651	1,983	1,681	2,010
STORMS/ ADVERSE WEATHER	370	256	261	291	293	405	298	360
CHANNEL CHARACTERISTICS	85	76	194	209	160	634	317	227
STRUCTURAL FAILURE	2	586	252	136	120	133	101	48
EQUIPMENT FAILURE	524	483	651	777	788	879	659	1,024
UNSEAWORTHY/ IMPROPER MAINTENANCE	81	58		30	40	34	89	128
FAULT OTHER VESSEL/ PERSONNEL	1,435	1,033	1,639	1,830	2,063	2,350	2,563	2,874
OTHER	311	238	481	564	432	715	432	447
TOTAL	4,141	4,116	4,962	5,381	5,547	7,133	6,140	7,118

GRAPH SERIES 1: CASUALTY CAUSE BY CALENDAR YEAR FOR FIVE TYPES OF CASUALTY

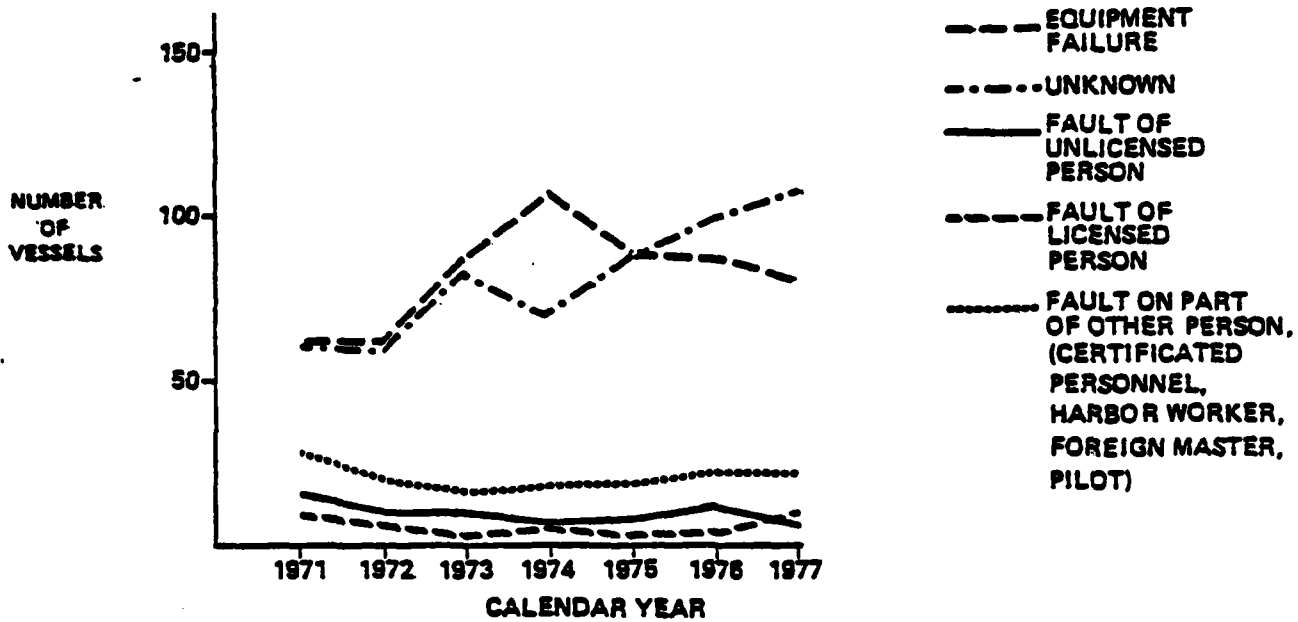
TYPES: COLLISIONS
 FIRES/EXPLOSIONS
 GROUNDINGS
 MATERIAL FAILURES
 RAMMINGS

CAUSES: FIVE MOST FREQUENTLY INVOLVED FOR EACH CASUALTY TYPE

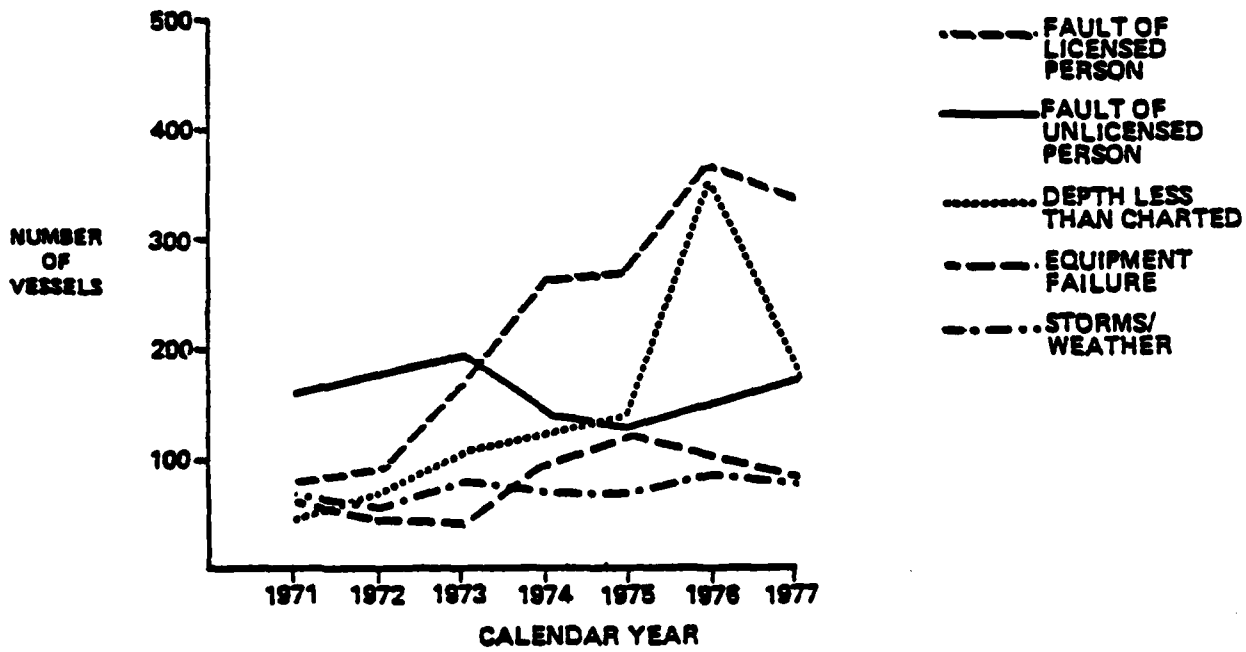
GRAPH IA: COLLISIONS



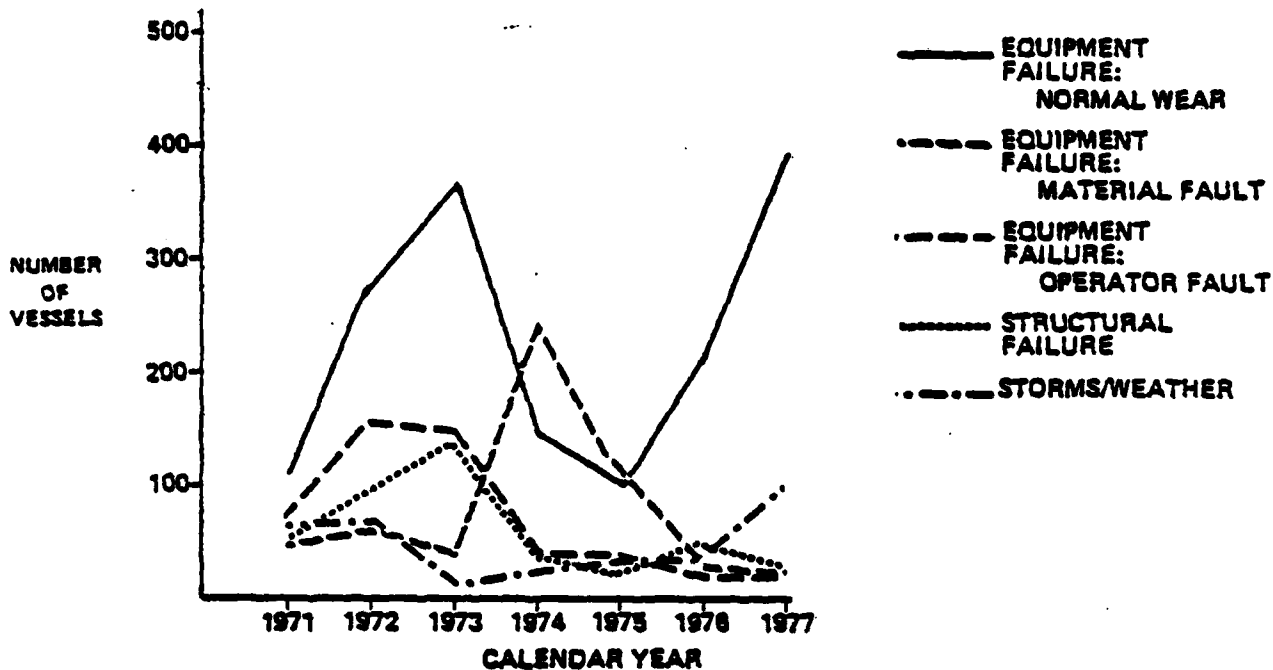
GRAPH 1B: FIRES/EXPLOSIONS



GRAPH 1C: GROUNDINGS



GRAPH 1D: MATERIAL FAILURES



GRAPH 1E: RAMMINGS



**VESSELS INVOLVED IN CASUALTIES
VESSEL TYPE vs. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976	1977	1978
ARTIFICIAL ISLAND ON DRILL RIG	13	10		20	25	31	28	31
CARGO VESSEL U.S. INSPECTED	509	487	508	472	422	521	474	589
CARGO BARGE	496	649	814	811	936	1285	1012	1162
FREIGHT & OFFSHORE SUPPLY VESSELS	69	67	27	40	61	89	55	58
CONSTRUCTION & WRECKING VESSELS	67	54	50	42	65	115	54	81
DREDGE, SELF- PROPELLED	2	7	12	18	9	10	14	22
DREDGE, NON SELF-PROPELLED	29	18	31	30	29	45	27	47
FISHING VESSEL EXCL. SPORT & CHARTER	649	497	725	924	852	1013	841	1186
TUG & TOWBOAT	1065	1087	1291	1418	1499	1914	1707	1811
PASSENGER > 785 FT. ≥ 100 G.T.	15	14	27	15	16	26	1	30
PASSENGER > 85 FT. < 100 G.T.	21	17	22	23	26	73	46	44
PASSENGER ≤ 65 FT.	97	109	199	143	117	139	81	187
FERRIES ≥ 65 FT. ≥ 100 G.T.	29	24	14	17	20	26	2	37
FERRIES > 65 FT. < 100 G.T.	6	1	4	2	2	12	2	5
FERRIES ≤ 65 FT.	4	6		3			0	5

	1971	1972	1973	1974	1975	1976	1977	1978
PASSENGER BARGE	2	0	3	1				1
TANKSHIP U.S. INSPECTED	193	206	247	210	212	237	214	319
PUBLIC PASSENGER VESSEL			1		5	3		
PUBLIC CARGO VESSEL			1	4	3	2		
PUBLIC TANKSHIP	16	12	3	11	5	7	16	15
PUBLIC OTHER	40	29	12	17	7	24	29	17
FOREIGN PASSENGER VESSEL	6	4	5	9	6	7		1
FOREIGN CARGO VESSEL	156	161	197	234	243	257	247	277
FOREIGN TANKSHIP	52	55	64	103	103	127	108	143
FOREIGN OTHER	34	29	13	18	42	52	36	48
CARGO BARGE HAZARDOUS CARGO		3	4		2	2		3
TANK BARGE HAZARDOUS CARGO			19	4	15	37	14	17
TANK BARGE	497	497	518	613	650	759	875	782
HOVERCRAFT							2	
MISCELLANEOUS RESERVOIR, CABLE ETC.	93	72	144	182	176	295	217	200

**VESSEL CASUALTIES
BODY OF WATER VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976	1977	1978
*INLAND ATLANTIC	501	436	655	590	654	839	776	736
INLAND PACIFIC	204	323	479	465	569	570	433	596
INLAND GULF	745	591	764	671	676	560	418	409
OCEAN ATLANTIC	147	125	157	166	169	261	230	309
OCEAN PACIFIC	174	215	296	370	206	327	204	494
OCEAN GULF	134	131	73	143	172	242	149	227
GREAT LAKES	170	195	170	238	211	206	232	260
WESTERN RIVERS	265	251	407	615	557	595	635	672
INDIAN OCEANS	18	8	7	3	4	9	23	27
MEDITERRANEAN SEA	0	1	2	5	1	9	12	18
ARCTIC OCEAN	0	0	3	0	0	0	0	0
CARIBBEAN SEA	15	19	15	13	13	22	54	76
FOREIGN WATERS	114	126	107	99	93	195	91	75

*INLAND RULES OF THE ROAD, U.S. WATERS

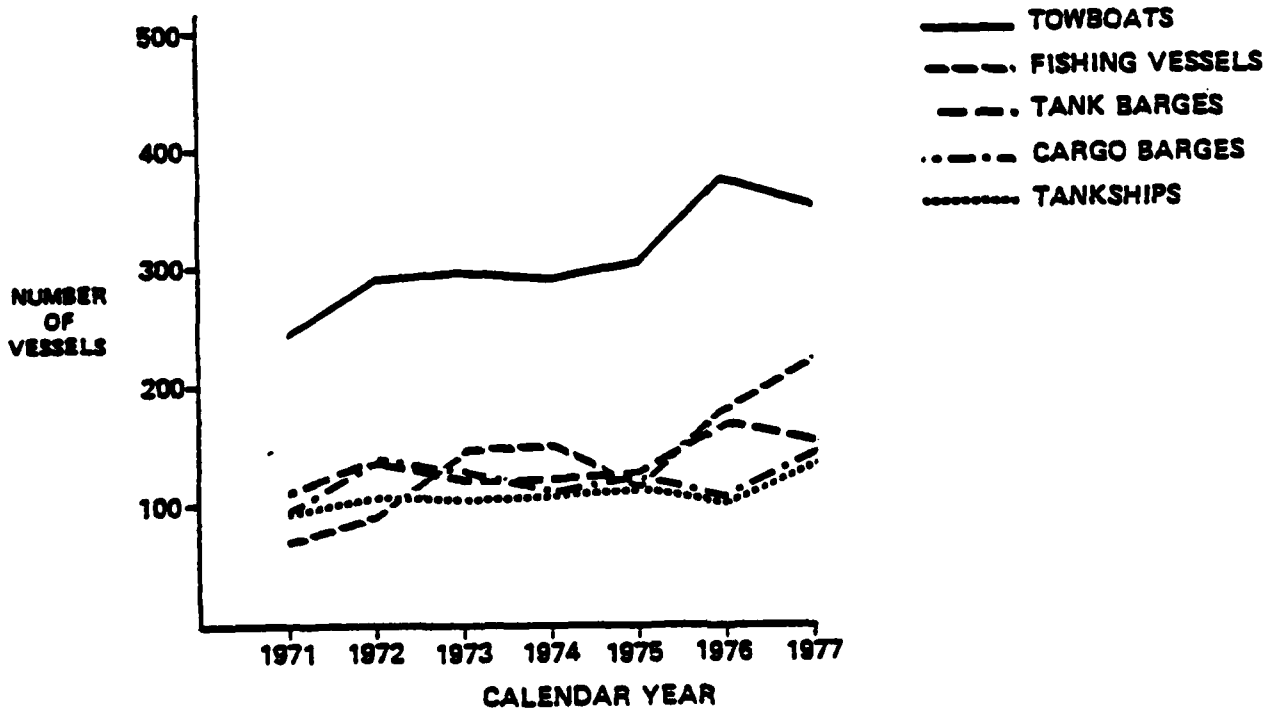
**GRAPH SERIES 2: NUMBER OF VESSELS INVOLVED
IN CASUALTIES BY CALENDAR
YEAR FOR FIVE REGIONS**

REGIONS: INLAND ATLANTIC*
INLAND GULF*
INLAND PACIFIC*
WESTERN RIVERS
GREAT LAKES

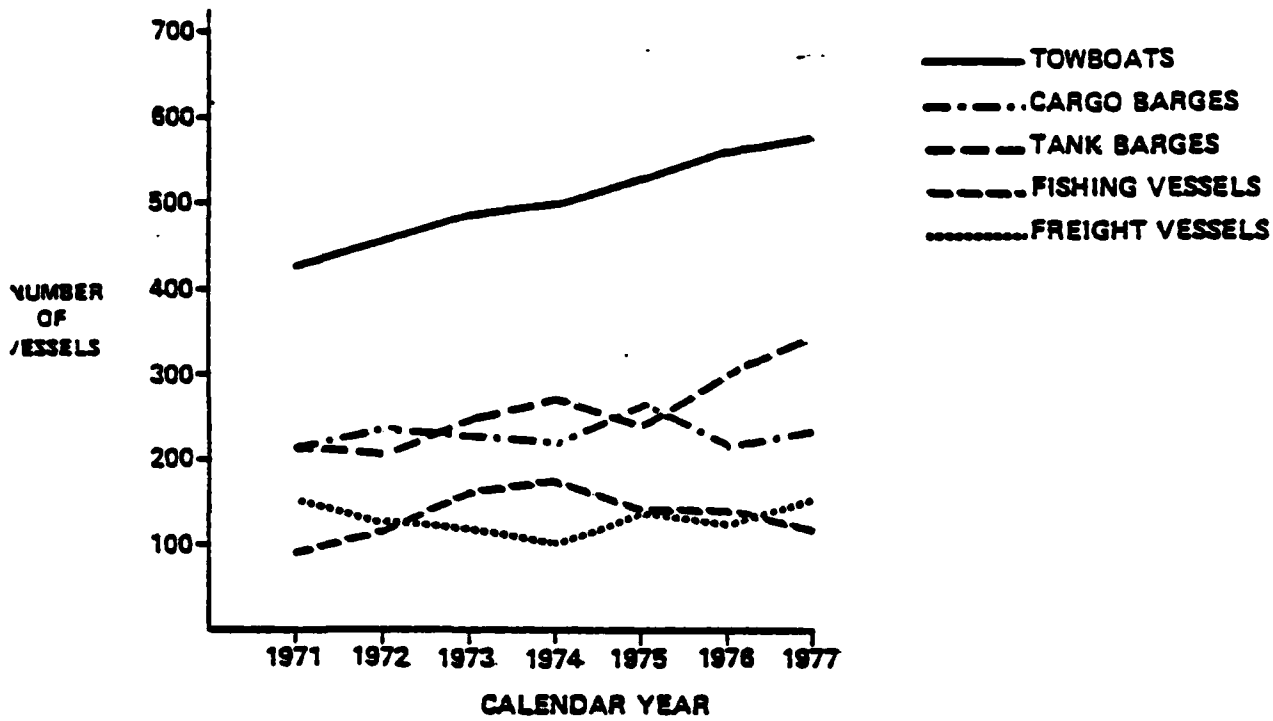
VESSEL TYPES: FIVE MOST FREQUENTLY
INVOLVED IN EACH REGION

* INLAND RULES OF THE ROAD APPLY

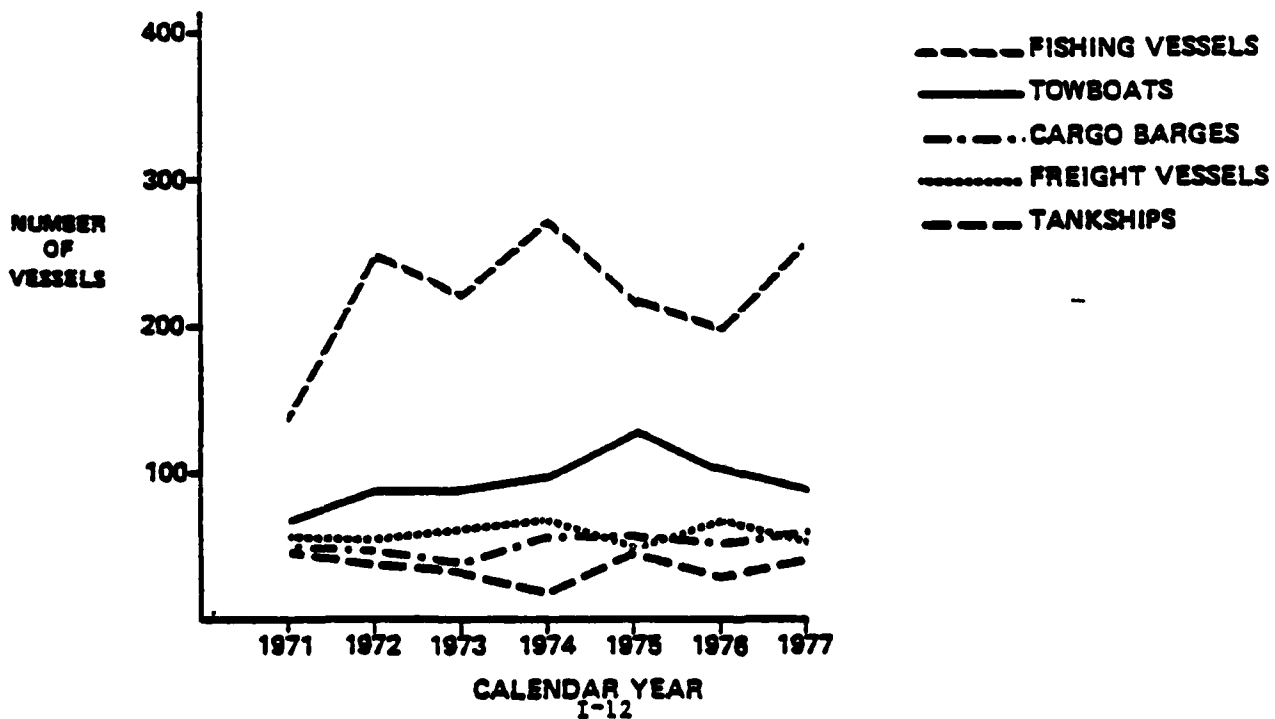
GRAPH 2A: INLAND ATLANTIC



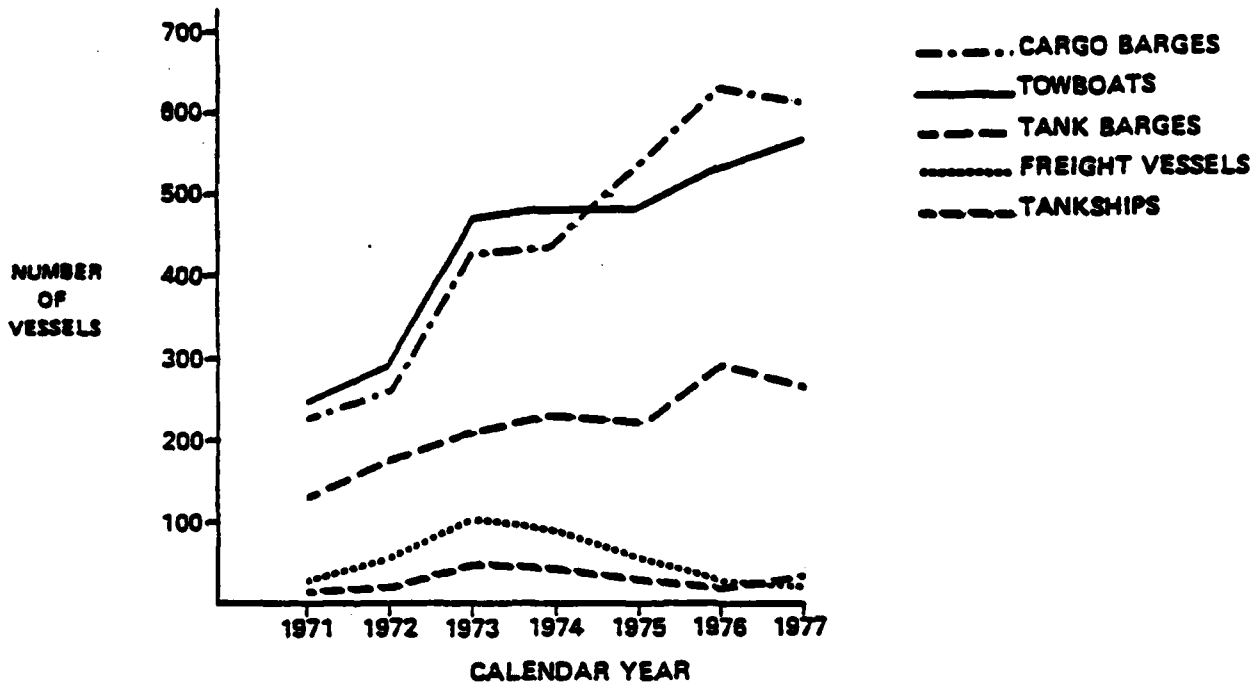
GRAPH 2B: INLAND GULF



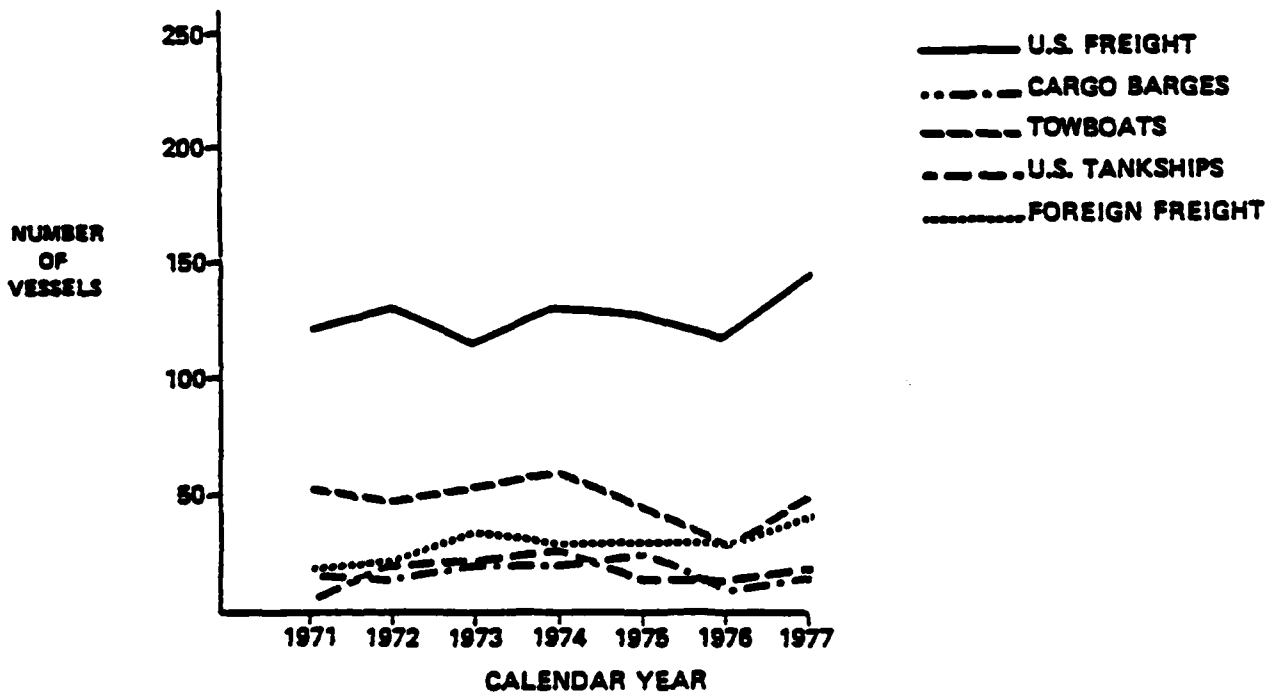
GRAPH 2C: INLAND PACIFIC



GRAPH 2D: WESTERN RIVERS



GRAPH 2E: GREAT LAKES

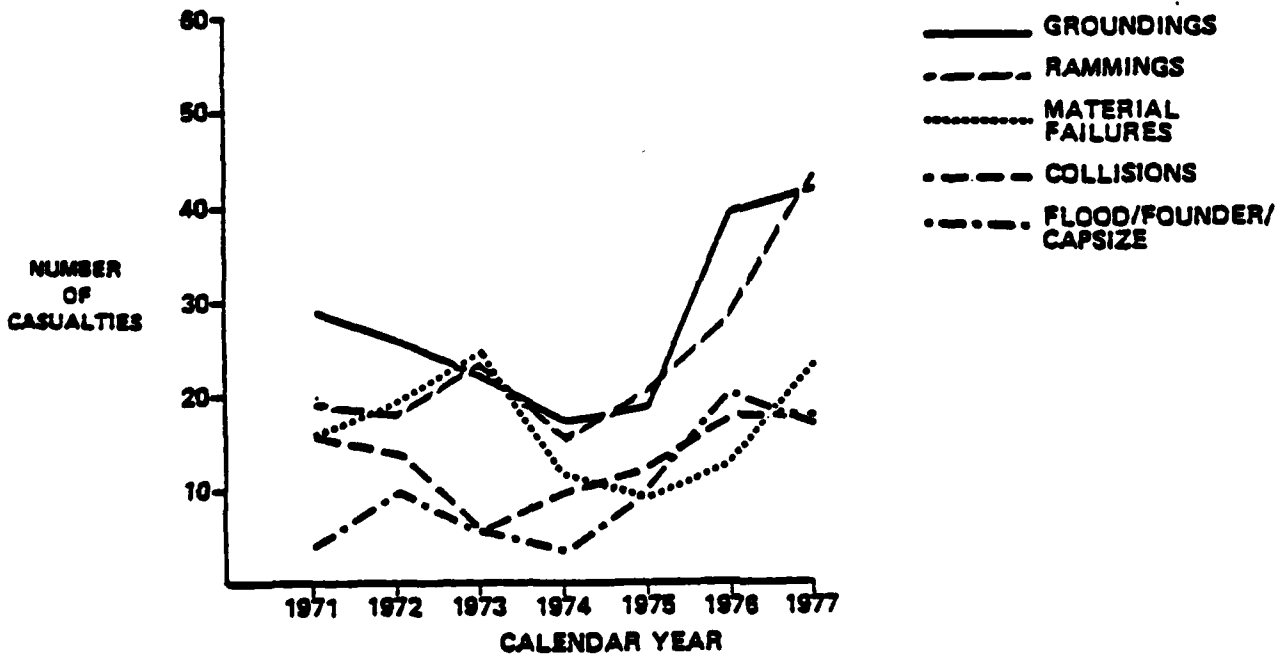


GRAPH SERIES 3: TYPE OF CASUALTY BY CALENDAR YEAR FOR SEVEN PORT AREAS

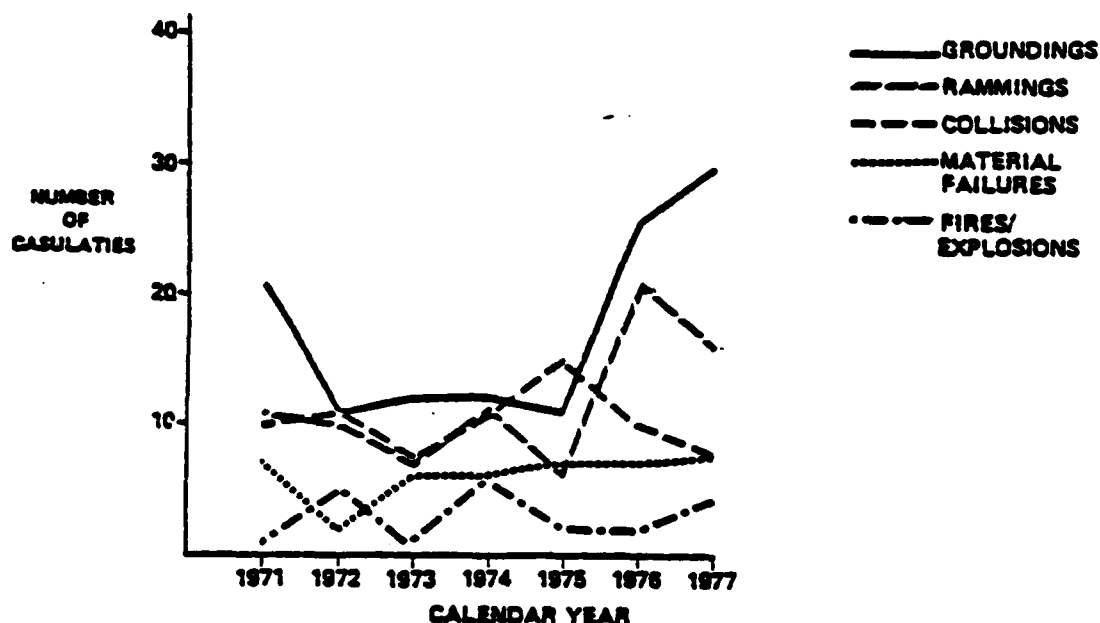
AREAS: NEW YORK CITY/LONG ISLAND
DELAWARE BAY
CHESAPEAKE BAY
NEW ORLEANS/PASSES OF THE MISSISSIPPI RIVER
HOUSTON/GALVESTON/PORT ARTHUR
LOS ANGELES/LONG BEACH
PUGET SOUND

CASUALTY: FIVE MOST FREQUENT IN EACH AREA
TYPES

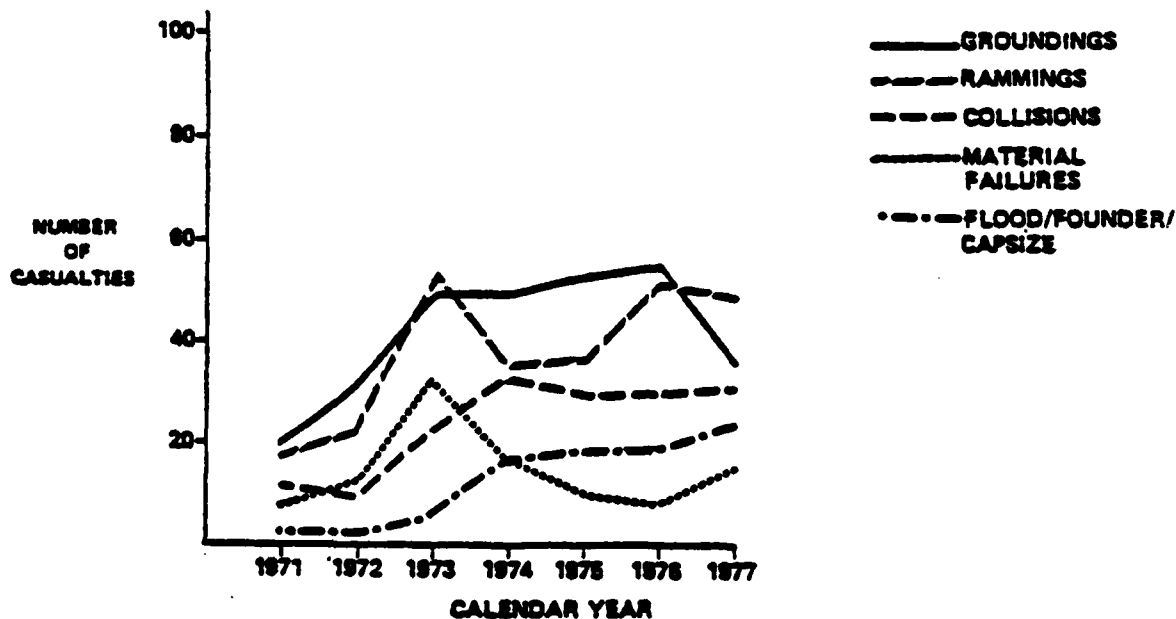
GRAPH 3A: CHESAPEAKE BAY



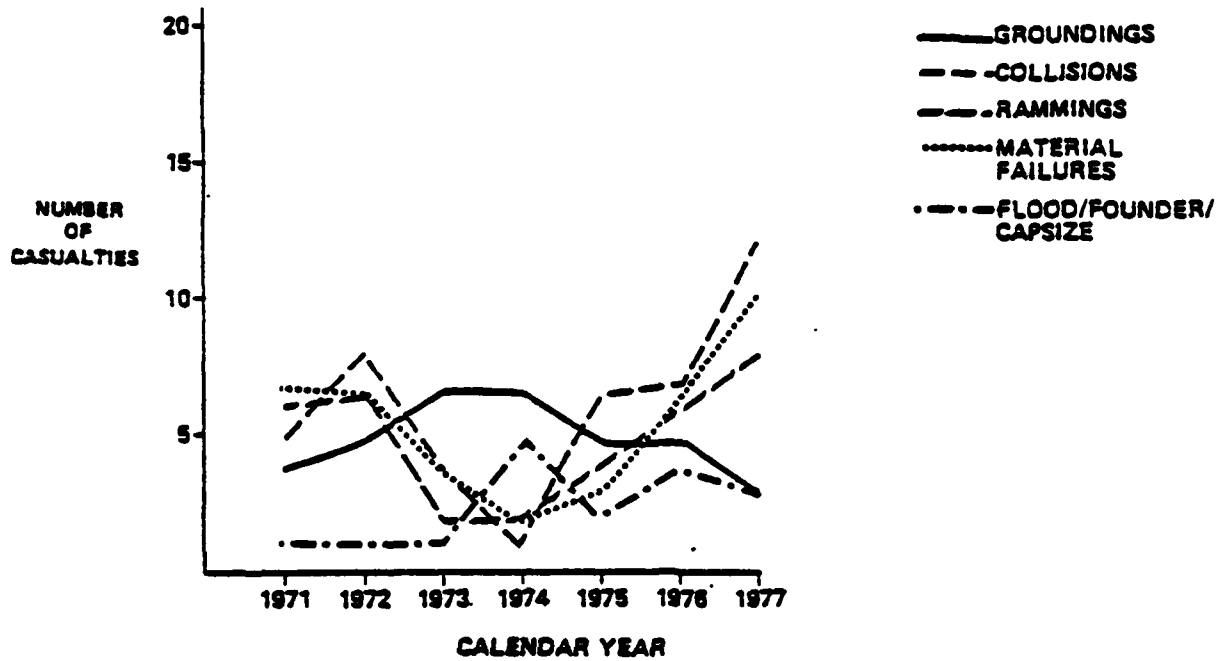
GRAPH 3B: DELAWARE BAY



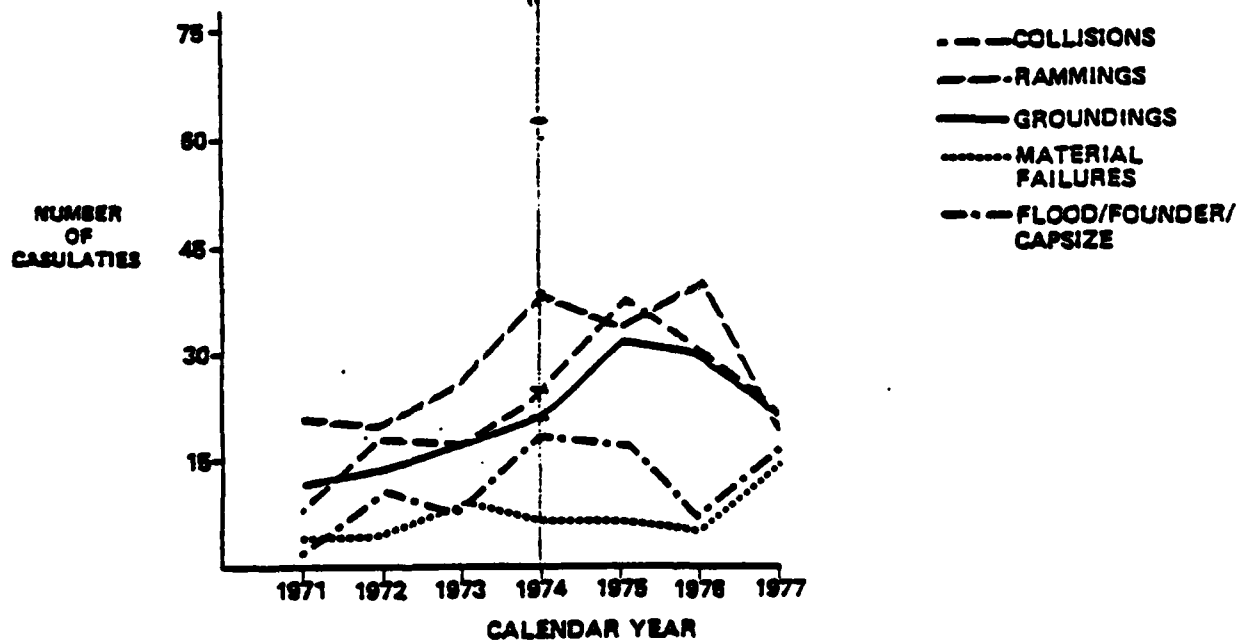
GRAPH 3C: HOUSTON/GALVESTON/PORT ARTHUR



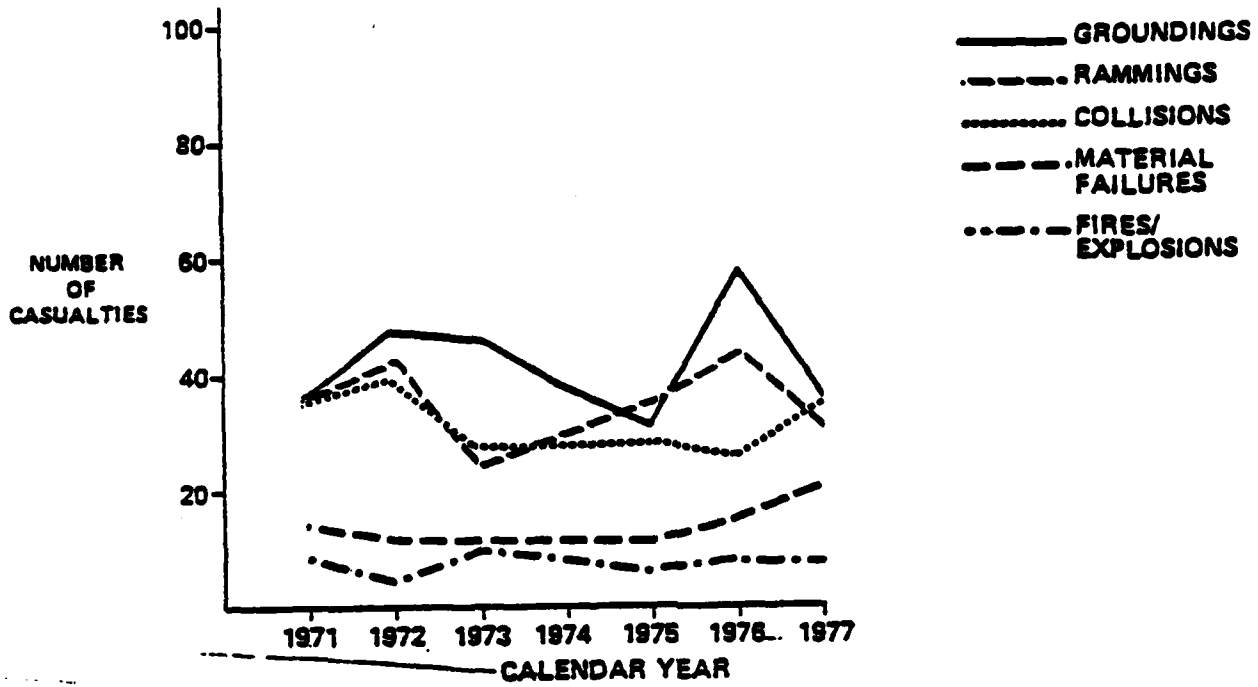
GRAPH 3D: LOS ANGELES/LONG BEACH



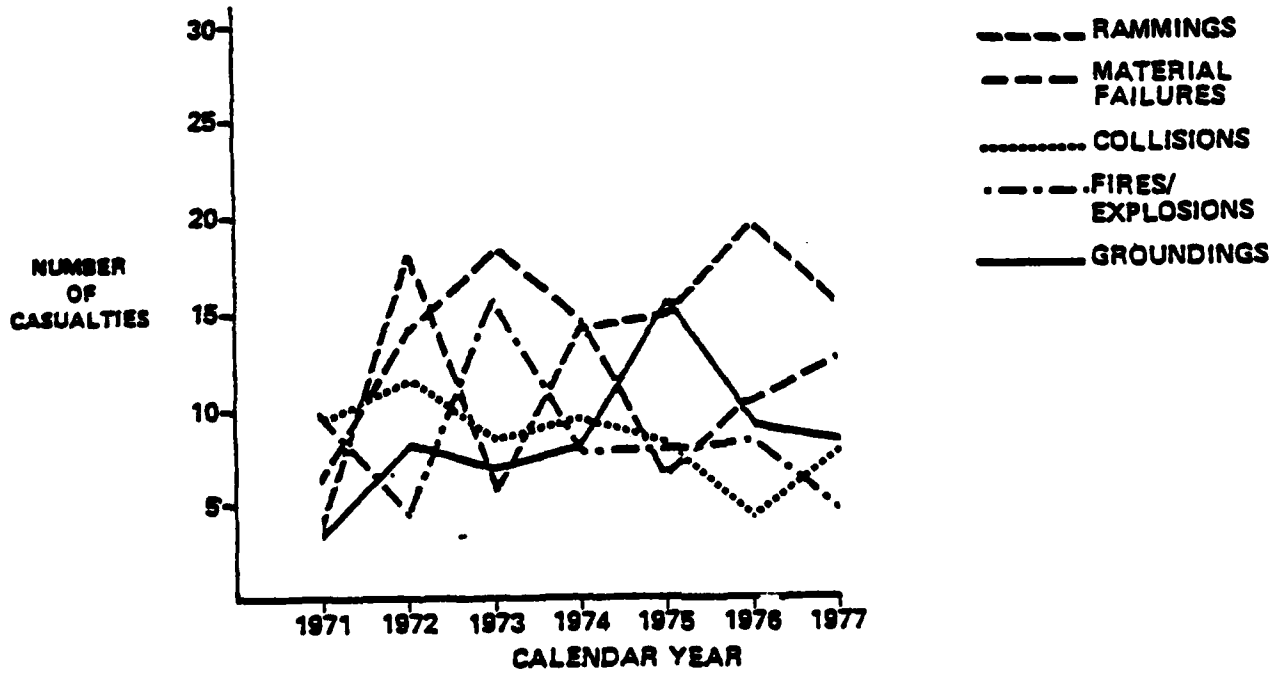
GRAPH 3E: NEW ORLEANS/MISSISSIPPI RIVER PASSES



GRAPH 3F: NEW YORK/LONG ISLAND



GRAPH 3G: PUGET SOUND



VESSEL CASUALTY INVESTIGATIONS * REPORTING OFFICE vs. FISCAL YEAR

	1975 1976 1977 1978			1976 1976 1977 1978			1976 1976 1977 1978							
ALBANY	20	19	20	12	HUNTINGTON	43	36	15	33	PORTLAND, OR.	215	177	89	451
ANCHORAGE	80	106	100	76	JACKSONVILLE	31	68	63	38	HAMPTON ROADS	107	165	194	200
BALTIMORE	43	81	98	96	JUNEAU	80	110	70	117	PROVIDENCE	27	36	29	47
BOSTON	32	62	60	64	LOS ANGELES	67	80	95	123	SAN DIEGO	25	39	30	63
BUFFALO	19	24	11	34	LOUISVILLE	38	25	17	26	SAVANNAH	40	47	34	20
CHARLESTON	31	42	15	23	MEMPHIS	53	59	126	73	SAN FRANCISCO	131	159	146	168
CHICAGO	87	81	85	114	MIAMI	78	74	38	69	SEATTLE	129	133	82	102
CINCINNATI	5	16	9	13	MOBILE	115	121	68	67	ST. IGNACE	15	38	55	49
CLEVELAND	19	18	11	27	NASHVILLE	24	24	32	35	SAN JUAN	50	78	65	75
CORPUS CHRISTI	141	102	71	115	NEW ORLEANS	487	669	469	569	ST. LOUIS	74	79	55	92
DETROIT	37	37	29	35	NEW YORK	216	285	239	260	TAMPA	88	136	111	85
DURKOE/ST. PAUL	19	26	24	57	PADUCAN	40	125	146	111	TOLEDO	27	25	22	21
DULUTH	32	14	32	39	PORT ARTHUR	97	137	108	70	WILMINGTON, NC.	51	85	71	84
GALVESTON	96	132	131	158	PHILADELPHIA	102	102	107	126	BREMEN	24	24	16	7
HONOLULU	56	96	47	28	PITTSBURGH	41	33	31	26	LONDON	5	10	11	5
HOUSTON	40	85	72	108	PORTLAND, ME.	17	67	90	38	ROTTERDAM	6	4	2	10
										SINGAPORE				
										MANILA				
										GUAM				

*COMPLETED TO FILE AT HEADQUARTERS

SECTION II

PERSONNEL INJURIES & DEATHS

- A. Statistical Summary of Deaths/Injuries Due to a Vessel Casualty - FY 1978 II-2
- B. Statistical Summary of Deaths on Board Commercial Vessels Not Involving a Vessel Casualty - FY 1978 II-3
- C. Statistical Summary of Personnel Injuries on Board Commercial Vessels Not Involving a Vessel Casualty - FY 1978 II-4
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 - 1. Nature vs. Fiscal Year II-9
 - 2. Cause vs. Fiscal Year II-10

Statistical Summary of Deaths/Injuries Due to a Vessel Casualty

1 October 1977 to 30 September 1978 Fiscal Year 1978		Collision, listing, mooring and anchoring	Collision while underway, docking or undocking	Collision, dry	Collision with pier and bridge	Collision with other	Explosion under fire-cargo	Explosion under fire-ventilator	Explosion under fire-pressure vessel, boiler	Explosion under fire-structure, equipment, all others	Grounding with damage to vessel	Grounding without damage to vessel	Foundering, capsizing, and flooding	Heavy weather damage	Cargo damage	Structural failure - structure and equipment	Structural failure - machinery and engineering equipment	Causticity and other toxic classified	Total	
Number of casualties Number of fatalities Number of injured persons Number of persons discharged		13/28	22/47	5/10	5/10	5/11	5/10	5/10	5/10	14/21	5/10	5/10	119/123	5/10	5/10	7/10	5/10	5/10	179/119	
PRIMARY CAUSE Primary cause Collision Listing Foundering, capsizing, and flooding Heavy weather Cargo Structural failure - structure and equipment Structural failure - machinery and engineering equipment Causticity and other toxic		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
VESEL TYPE Motor Sailing Tug Ferry Other		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
PARTICULARS OF PERSON DECEASED/INJURED Crew Passengers Other		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
PART OF VESSEL INVOLVED Hull Deck Mast Superstructure Cargo Machinery and equipment		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Statistical Summary of Deaths on Board Commercial Vessels Not Involving a Vessel Casualty

1 October 1977 to 30 September 1978
Fiscal Year 1978

	Alcohol consumption	Heart failure	Stroke	Diabetes	Myocardial infarction	Myocardial infarction - sudden	Myocardial infarction - other	Falls from vessel-deck water	Falls into tanks or tanks	Death by slipping, falling, or tripping	Explosion and explosion	Death - gunshot, stab, crushed, trapped, etc.	Operating machinery and tools	Death and in-cabin below deck (BIB)	Electric shock and burns	Caught in bars, chains or over rigging	Pushing or crushing	Sharp objects	Overexertion, sprains and strains	Other, for example, burns, and gun bars	Alcohol consumption and other factors	Unknown or insufficient information	Total
Number of deaths	122	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	122	
Number of unexplained deaths observed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Number of unexplained deaths observed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
CAUSE OF DEATH																							
Proximal deficiency or condition	122																						122
Underlying condition of vessel																							
Psychological - stress, anxiety																							
Upright position																							
Position of line or equipment																							
Human error																							
Death occurred or observed																							
Center position																							
Near proximity to equipment																							
Immediate vicinity																							
Immediate vicinity of deck																							
Failure of equipment																							
Immediate proximity																							
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**PERSONNEL DEATHS / INJURIES
DUE TO A VESSEL CASUALTY
NATURE OF VESSEL CASUALTY VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976 *	1977	1978
COLLISION	47 / 31	19 / 19	16 / 34	25 / 44	62 / 30	28 / 34	89 / 52	24 / 37
RÄMMING	11 / 17	13 / 10	23 / 17	6 / 4	9 / 6	8 / 11	4 / 10	1 / 14
GROUNDING	17 / 4	11 / 2	2 / 3	7 / 7	5 / 1	4 / 10	1 / 4	8 / 4
FIRE/EXPLOSION	55 / 79	67 / 50	4 / 33	23 / 30	21 / 25	29 / 46	33 / 45	18 / 31
FLOODING	2 / 0	1 / 1	2 / 0	4 / 0	1 / 2	7 / 1	3 / 0	2 / 3
FOUNDERING	9 / 1	3 / 1	1 / 0	79 / 4	40 / 0	75 / 9	58 / 12	75 / 12
CAPSIZING	36 / 2	17 / 2	26 / 1	20 / 3	37 / 1	55 / 15	13 / 3	42 / 0
MATERIAL FAILURE	60 / 24	43 / 22	31 / 11	10 / 15	8 / 3	37 / 9	11 / 7	10 / 15
OTHER	6 / 5	3 / 3	14 / 2	21 / 4	7 / 6	27 / 16	4 / 3	0 / 5
TOTAL	243 / 163	177 / 110	141 / 101	195 / 111	190 / 74	270 / 151	216 / 136	180 / 121

* FIFTEEN MONTH REPORTING PERIOD

II-5

**PERSONNEL DEATHS/INJURIES DUE TO A VESSEL CASUALTY
CAUSE OF VESSEL CASUALTY VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976	1977	1978
PERSONNEL FAULT	99 / 84	101 / 44	67 / 41	37 / 51	55 / 24	57 / 40	111 / 57	41 / 47
STORMS/ ADVERSE WEATHER	23 / 1	9 / 1	22 / 1	44 / 7	21 / 2	54 / 11	42 / 5	56 / 8
CHANNEL CHARACTERISTICS	0 / 0	1 / 1	1 / 2	0 / 1	0 / 0	5 / 7	1 / 1	1 / 0
STRUCTURAL FAILURE	0 / 0	8 / 1	1 / 0	1 / 2	1 / 2	5 / 8	3 / 6	5 / 1
EQUIPMENT FAILURE	60 / 28	9 / 24	7 / 16	17 / 21	15 / 16	25 / 28	26 / 22	18 / 23
UNSEAWORTHY/ IMPROPER MAINTENANCE	14 / 1	20 / 1	18 / 1	29 / 0	1 / 0	0 / 1	6 / 0	7 / 2
FAULT OTHER VESSEL/PERSONNEL	12 / 12	0 / 6	3 / 12	27 / 9	52 / 21	13 / 22	4 / 28	19 / 20
OTHER	35 / 37	29 / 32	21 / 28	40 / 20	45 / 9	111 / 34	23 / 17	33 / 20
TOTAL	243 / 163	177 / 110	140 / 101	195 / 111	190 / 74	270 / 151	216 / 136	180 / 121

**PERSONNEL DEATHS ON BOARD COMMERCIAL VESSELS
(NO VESSEL CASUALTY)
NATURE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
NATURAL CAUSES	154	147	124	108	144	172	114	118
HOMICIDE	5	7	8	2	2	7	0	3
SUICIDE	15	19	13	7	12	18	10	4
DISAPPEARANCE	0	0	0	3	0	16	13	3
SLIPS & FALLS LADDERS	5	8	8	4	5	10	2	8
SLIPS & FALLS GANGWAYS	3	2	3	0	2	1	1	1
SLIPS & FALLS ON DECK	0	0	0	2	1	0	1	0
SLIPS & FALLS OTHER	10	9	5	6	9	13	8	10
FALLS FROM VESSELS INTO WATER	124	100	110	106	113	97	77	98
FALLS INTO HOLDS OR TANKS	13	5	7	3	4	5	5	6
STRUCK BY OBJECT: FALLING OR MOVING	29	21	26	15	15	25	14	34
STRUCK AGAINST, CRUSHED, BUMPED INTO OBJECT	1	3	0	2	1	4	4	1
EXPOSURE & ASPHYXIATION	14	8	11	8	11	13	11	15
OPERATING MACHINERY OR TOOLS	2	0	0	0	0	0	0	2
BURNS & SCALDS (NON-ELECTRICAL)	1	0	4	2	2	1	2	1
ELECTRIC SHOCK & BURNS	0	1	0	1	4	3	4	1
CAUGHT IN LINES, CHAINS, OR WIRE ROPES	4	2	3	3	4	10	1	2
PINCHING AND CRUSHING	4	7	7	7	8	3	4	2
OVEREXERTION, STRAINS, AND SPRAINS	0	0	0	0	0	0	0	0
CUTS, LACERATIONS, PUNCTURES	0	0	0	2	0	1	0	0
ALTERCATIONS AND MISCONDUCT	0	0	0	3	3	2	0	0
MISCELLANEOUS	5	8	11	11	8	4	1	10
TOTAL	389	347	340	295	348	405	272	319

* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL DEATHS ON COMMERCIAL VESSELS
(NO VESSEL CASUALTY)
CAUSE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
INTOXICATION	12	19	20	9	11	20	7	8
PHYSICAL DEFICIENCY OR HANDICAP	159	149	128	108	144	180	115	118
UNSAFE MOVEMENT OR POSTURE	15	2	15	88	63	25	18	11
PSYCHOLOGICAL INSANITY IMMATUREITY	33	30	24	11	15	28	10	9
UNSAFE PRACTICE	45	42	33	27	10	36	16	3
VIOLATION OF LAW OR REGULATION	1	6	1	2	3	0	2	1
HUMAN ERROR	33	61	70	23	30	22	20	91
DECK SLIPPERY OR CLUTTERED	7	4	4	2	9	0	2	2
WEATHER	9	7	8	6	9	7	3	4
POOR MAINTENANCE	0	0	0	0	0	0	0	2
INADEQUATE LIGHTING	5	2	0	0	0	0	0	2
INADEQUATE RAILS OR GUARDS	8	2	0	0	0	0	2	0
EQUIPMENT FAILURE	20	11	22	15	11	29	23	10
INADEQUATE SUPERVISION	6	6	4	1	11	0	4	2
INADEQUATE TOOLS OR EQUIPMENT	1	0	0	0	1	0	0	0
INADEQUATE PROTECTIVE EQUIPMENT	3	1	2	2	16	17	6	3
IMPROPER USE OF TOOLS OR EQUIPMENT	1	2	0	2	1	2	1	0
MISCELLANEOUS	31	4	2	0	14	39	43	53
TOTAL	389	348	333	296	348	405	272	319

* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL INJURIES ON COMMERCIAL VESSELS
(NO VESSEL CASUALTY)
NATURE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
SLIPS & FALLS LADDERS	176	145	146	150	120	132	165	128
SLIPS & FALLS GANGWAYS	21	23	22	20	19	29	21	17
SLIPS & FALLS ON DECK	142	180	159	142	129	195	249	217
SLIPS & FALLS OTHER	215	128	148	228	209	115	69	107
FALLS FROM VESSELS INTO WATER	12	12	10	22	5	8	9	7
FALLS INTO HOLDS OR TANKS	17	12	7	21	17	21	15	13
STRUCK BY OBJECT: FALLING OR MOVING	219	224	194	221	223	205	216	313
STRUCK AGAINST, CRUSHED, BUMPED INTO OBJECTS	101	71	37	27	50	97	147	130
EXPOSURE & ASPHYXIATION	15	4	6	5	11	10	4	4
OPERATING MACHINERY OR TOOLS	20	41	40	1	1	4	14	34
BURNS & SCALDS (NON-ELECTRIC)	64	56	55	69	52	54	53	47
ELECTRIC SHOCK & BURNS	6	2	5	8	7	8	4	10
CAUGHT IN LINES, CHAINS, OR WIRE ROPES	59	41	48	71	52	67	79	41
PINCHING & CRUSHING	107	65	91	96	108	58	88	57
OVEREXERTION, SPRAINS, AND STRAINS	165	109	85	69	83	111	172	173
CUTS, LACERATIONS, PUNCTURES	62	38	35	45	48	53	65	65
ALTERATIONS & MISCONDUCT	68	45	44	44	49	37	38	38
MISCELLANEOUS	47	47	36	26	33	20	11	39
TOTAL	1,516	1,243	1,168	1,265	1,216	1,224	1,419	1,440

* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL INJURIES ON COMMERCIAL VESSELS
(NO VESSEL CASUALTY)
CAUSE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976 *	1977	1978
INTOXICATION	49	48	28	35	39	23	27	16
PHYSICAL DEFICIENCY OR HANDICAP	44	26	22	67	42	35	39	33
UNSAFE MOVEMENT OR POSTURE	172	36	39	49	30	129	140	179
PSYCHOLOGICAL INSANITY IMMATUREITY	58	41	36	24	42	37	39	38
UNSAFE PRACTICE	191	200	117	26	17	184	165	161
VIOLATION OF LAW OR REGULATION	5	5	3	6	3	9	3	4
HUMAN ERROR	755	648	677	707	677	605	730	725
DECK SLIPPERY OR CLUTTERED	32	41	55	68	62	38	85	72
WEATHER	55	69	63	68	76	34	65	75
POOR MAINTENANCE	16	9	10	9	9	8	15	11
INADEQUATE LIGHTING	2	3	1	4	3	4	1	6
INADEQUATE RAILS OR GUARDS	2	4	5	7	5	4	5	4
EQUIPMENT FAILURE	56	57	76	106	76	67	69	67
INADEQUATE SUPERVISION	12	12	14	31	32	13	5	4
INADEQUATE TOOLS OR EQUIPMENT	4	4	3	19	6	3	2	6
INADEQUATE PROTECTIVE EQUIPMENT	14	11	9	18	28	9	9	9
IMPROPER USE OF TOOLS OR EQUIPMENT	18	18	6	21	49	17	6	26
MISCELLANEOUS	31	11	4	0	20	5	14	4
TOTAL	1,516	1,243	1,168	1,265	1,216	1,224	1,419	1,440

* FIFTEEN MONTH REPORTING PERIOD

SECTION III

INSPECTED VESSELS OF THE UNITED STATES*

I. Year Built vs. Type of Vessel III-2

II. Gross Tonnage vs. Type of Vessel III-3

III. Inspecting Office vs. Type of Vessel III-4

IV. Subchapter "D" Tank Barges
Year Built vs. Hull Type III-7

V. Subchapter "O/D" Tank Barges
Year Built vs. Hull Type III-8

VI. Cargo Vessels, Self-Propelled
> 1600 Gross Tons: Year Built vs. Gross Tons III-9

VII. Tankships, > 1600 Gross Tons
Year Built vs. Gross Tons III-10

* - As of 1 January 1979

**INSPECTED VESSELS
YEAR BUILT VS. VESSEL TYPE**

	TANK-SHIP	TANK BARGE	CARGO & MISCEL-LANEOUS	CARGO BARGE	LARGE PASSENGER	SMALL PASSENGER	RESEARCH/ OCEANO-GRAPHIC	SCHOOL SHIP	UNKNOWN	TOTAL
1900-1920	6	7	38	3	8	41				103
1921-1925	3	12	20	2	5	35				77
1926-1930	10	13	18	4	9	51				105
1931-1935	8	36	11	4	6	62				127
1936-1940	8	119	16	4	4	126		2		279
1941-1945	72	156	169	56	9	345	3	3	1	814
1946-1950	15	280	25	11	7	246				584
1951-1955	38	289	62	37	8	301		3	1	739
1956-1960	59	455	54	87	18	429		1		1,103
1961-1965	27	580	155	76	17	583	7		2	1,447
1966-1970	26	903	140	279	9	713	7			2,077
1971-1975	54	815	225	147	16	767	6		2	2,032
1976-1978	29	309	172	170	32	486			15	1,193
UNKNOWN		12	6	10		38			65	131
TOTAL	355	3,986	1,111	890	128	4,223	23	9	86	10,811

**INSPECTED VESSELS
GROSS TONS VS. VESSEL TYPE**

	TANK-SHIP	TANK BARGE	CARGO & MISCEL-LANEOUS	CARGO BARGE	LARGE PASSENGER	SMALL PASSENGER	RESEARCH OCEANOGRAPHIC	SCHOOL SHIP	UNKNOWN	TOTAL
LESS THAN 100	41	149	128	21	5	4,220	1	2	6	4,573
100-299	11	220	241	91	28				1	592
300-1599	35	2,907	164	515	57		16	1	10	3,705
1600 & OVER	268	705	574	258	38		6	6	4	1,859
UNKNOWN		5	4	5		3			65	82
TOTAL	355	3,986	1,111	890	128	4,223	23	9	86	10,811

	TANK SHIPS	TANK BARGES	CARGO & MISCELLANEOUS	CARGO BARGES	LARGE PASSENGER	SMALL PASSENGER	RESEARCH/OCEAN. OGNAP/PMC	SCHOOL SHIPS	UNKNOWN	TOTAL
1st DISTRICT										
BOSTON	9	9	10	4	6	179	2	2		221
PORTLAND, ME.	6	2	4	0	7	86	0	2		107
PROVIDENCE	1	6	4	1	0	39	0	0		51
2nd DISTRICT										
ST. LOUIS	1	248	5	4	1	34				293
CINCINNATI		13	1	0	0	10				24
HUNTINGTON		185	0	1	0	13				199
LOUISVILLE		97	0	3	2	7				109
MEMPHIS		177	8	1	1	53				240
MINNEAPOLIS/ST. PAUL		9	2	0	1	26				38
NASHVILLE		75	0	4	0	16		1		96
PADUCAH		101	0	3	0	6		0		110
PITTSBURGH		99	0	2	2	7		2		112
3rd DISTRICT										
NEW YORK	51	165	179	53	30	513	1	1	4	997
ALBANY	1	0	1	5	2	5	0	0		14
PHILADELPHIA	14	25	5	5	3	194	0	0		246
6th DISTRICT										
HAMPTON ROADS	37	94	38	18	4	76	0	0		267
BALTIMORE	19	32	28	5	1	87	0	0		172
WILMINGTON, N.C.	0	12	4	1	4	43	1	0		65

**INSPECTED VESSELS
INSPECTING OFFICE VS. VESSEL TYPE (cont.)**

	TANK SHIPS	TANK BARGES	CARGO & MISCELL. ANECHOUS	CARGO BARGES	LARGE PASSENGER	SMALL PASSENGER	RESEARCH/OCEANOGRAPHIC	SCHOOL SHIPS	UNKNOWN	TOTAL
7th DISTRICT										
JACKSONVILLE	44	34	8	19	2	76	0			183
TAMPA	5	14	10	36		62	0			127
CHARLESTON	0	10	6	1		28	2			47
SAVANNAH	2	9	8	1		15	0			35
SAN JUAN	0	9	11	7		56	0			83
MIAMI	0	14	6	19		125	3		1	168
8th DISTRICT										
NEW ORLEANS	13	1,378	288	318	17	740	2	0	5	2,761
GALVESTON	11	122	17	10	2	60		1	1	224
HOUSTON	3	252	38	16	0	0		0		309
CORPUS CHRISTI	3	28	6	5	0	39		0		81
MOBILE	24	50	43	16	2	135		0		270
PORT ARTHUR	23	439	59	37	1	55			1	615
9th DISTRICT										
CLEVELAND	2	0	27	0	0	3	0			32
BUFFALO	0	0	3	0	0	16	0			19
CHICAGO	7	84	39	18	4	90	1			243
DULUTH	1	2	20	0	1	47				71
TOLEDO	1	0	19	2	0	33				55
DETROIT	1	11	13	2	2	23				52
ST. IGNACE	1	2	9	0	0	38				50

**INSPECTED VESSELS
INSPECTING OFFICE VS. VESSEL TYPE (cont.)**

	TANK SHIPS	TANK BARGES	CARGO & MISCELL. AGENS	CARGO BARGES	LARGE PASSENGER	SMALL PASSENGER	RESEARCH/OCEAN. ORGANIZ.	SCHOOL SHIPS	UNKNOWN	TOTAL
11th DISTRICT										
LOS ANGELES/LONG BEACH	13	23	37	22	2	238	3	0		338
SAN DIEGO	4	4	10	4	0	76	2	0	2	102
12th DISTRICT										
SAN FRANCISCO	18	18	56	23	5	220	3	3		346
13th DISTRICT										
PORTLAND, ORE.	21	41	19	46	1	393	1		3	525
SEATTLE	5	44	25	117	25	101	1		1	319
14th DISTRICT										
HONOLULU	4	6	11	42	0	86	0		1	150
GUAM	7	1	12	3	0	12	1			36
17th DISTRICT										
JUNEAU	2	19	12	2	0	39	0		2	76
VALDEZ	0	0	0	0	0	1	0			1
ANCHORAGE	1	23	6	9	0	9	0			48
PORT UNKNOWN			4	5		13			62	84
TOTALS	355	3,986	1,111	890	128	4,223	23	9	86	10,811

**TANK BARGES
INSPECTED UNDER SUBCHAPTER D
CODE OF FEDERAL REGULATIONS PART 46
YEAR BUILT VS. HULL TYPE**

	DOUBLE SIDE DOUBLE BOTTOM	DOUBLE SIDE PARTIAL DOUBLE BOTTOM	DOUBLE SIDE SINGLE BOTTOM	SINGLE SIDE DOUBLE BOTTOM	SINGLE SIDE PARTIAL DOUBLE BOTTOM	SINGLE SIDE SINGLE BOTTOM	HULL CONFIGU- RATION OTHER	UNKNOWN	TOTAL
1900-1930						28	2	1	31
1931-1935			1			32	2	1	36
1936-1940	2		1	1		107	1	3	115
1941-1945	1		2			140	4	3	150
1946-1950	7	1	7			204	4	3	226
1951-1955	11	1	9			236	3	1	261
1956-1960	27	1	14	1		272	4	5	324
1961-1965	75	4	4	2	1	209	11	3	309
1966-1970	96	3	12	6	2	404	5	11	539
1971-1975	128	16	59	3		182	7	15	410
1976-1978	65		1			23	5	44	138
UNKNOWN	2	1				4		1	8
TOTAL	414	27	110	13	3	1,841	68	91	2,547

**TANK BARGES
INSPECTED UNDER SUBCHAPTER O/D
CODE OF FEDERAL REGULATIONS PART 46
YEAR BUILT VS. HULL TYPE**

	DOUBLE SIDE DOUBLE BOTTOM	DOUBLE SIDE PARTIAL DOUBLE BOTTOM	DOUBLE SIDE SINGLE BOTTOM	SINGLE SIDE DOUBLE BOTTOM	SINGLE SIDE PARTIAL DOUBLE BOTTOM	SINGLE SIDE SINGLE BOTTOM	HULL CONFIGU- RATION OTHER	UNKNOWN	TOTAL
1900-1939						1			1
1931-1935									0
1936-1940						3	1		4
1941-1945						5			5
1946-1950	1		2			38	2	2	45
1951-1955			5	2		4	7		18
1956-1960	26		12			26	17	2	83
1961-1965	131	3	25			45	11	3	218
1966-1970	243	7	12			34	5		301
1971-1975	288	35	31	1		14	24	10	403
1976-1979	101	2				7	1	57	168
UNKNOWN	1	1						1	3
TOTAL	791	48	87	3	0	177	68	75	1,249

**INSPECTED CARGO VESSELS
SELF-PROPELLED 1600 GROSS TONS AND OVER
YEAR BUILT VS. GROSS TONS**

	1,600- 4,999	5,000- 9,999	10,000- 14,999	15,000- 19,999	20,000- 24,999	25,000- 29,999	30,000- 34,999	35,000- 39,999	40,000- 45,000	UNKNOWN	TOTAL
1900-1930	6	47	1								54
1931-1935	2										2
1936-1940	1	4	2								7
1941-1945	2	36	59	14							111
1946-1950	2	5	5	1							13
1951-1955	1	8	27	8							44
1956-1960	4	5	10	2							21
1961-1965		24	53	7							84
1966-1970	3	13	22	23	4	1					66
1971-1975	4	1	5	11	17	11	11		8		68
1976-1978	5	2	5	5			2	1	1		21
UNKNOWN											
TOTAL	30	145	189	71	21	12	13	1	9		491

**INSPECTED TANKSHIPS
1600 GT AND OVER
YEAR BUILT VS. GROSS TONS**

	1600- 4,999	5,000- 9,999	10,000- 14,999	15,000- 19,999	20,000- 24,999	25,000- 29,999	30,000- 34,999	35,000- 39,999	40,000- 49,999	50,000- 59,999	> 100,000	UNKNOWN	TOTAL
1900-1930	1	1											2
1931-1935													0
1936-1940	2	1											3
1941-1945	2	5	34	18									59
1946-1950		1		4									5
1951-1955	1		7	17	4		1						30
1956-1960	2	1	1	23	19	6	1		1				54
1961-1965	1	1		6	1	9	2		1	1			22
1966-1970	3			1	11		2	5					22
1971-1975	1			9	8		1	10	4	6			42
1976-1978	3	1		2	6				7	6	4		29
UNKNOWN													
TOTAL	16	11	42	80	49	15	7	15	13	13	7		268

SECTION IV

DOCUMENTED VESSELS OF THE UNITED STATES

- I. Service vs. Decade Built IV-2
- II. Service vs. Propulsion IV-3
- III. Service vs. Gross Tonnage IV-4
- IV. Homeport vs. Service IV-5

**DOCUMENTED VESSELS OF THE UNITED STATES
SERVICE vs. DECADE BUILT**

	TO 1919	1920 - 1929	1930 - 1939	1940 - 1949	1950 - 1959	1960 - 1969	1970 - 1979	TOTAL
CABLE		1		3	2	2	1	9
DREDGE	28	36	34	67	116	131	59	471
OIL EXPLOITATION	4	16	22	96	406	1,009	1,090	2,643
FERRY	2	27	31	55	65	52	32	264
FIREBOAT	1	4	3	7	9	9	4	37
FREIGHT	307	339	273	1,220	2,534	5,372	11,118	21,163
FISHING	1,114	1,370	1,705	5,148	4,049	4,954	7,783	26,123
LIGHTERING		1	2	5	10	4	6	28
PASSENGER	146	183	448	940	1,424	2,442	2,183	7,766
PILE DRIVING	6	4	5	12	20	10	7	64
PLEASURE	8	15	10	16	5	8	18	80
PILOT BOAT	1	2	5	9	21	45	36	119
POLICE BOAT		1		2	4	19	17	43
PATROL BOAT			2	9	8	14	20	53
TANKER	13	31	86	366	520	967	927	2,910
TOWING	384	224	353	1,214	1,450	1,587	1,634	6,846
YACHTING	365	703	1,430	1,765	3,341	17,064	25,261	49,929
MISCELLANEOUS	71	73	97	294	269	329	318	1,451
TOTAL	2,450	3,030	4,506	11,228	14,253	34,018	50,514	119,999

**DOCUMENTED VESSELS OF THE UNITED STATES
SERVICE VS. PROPULSION**

	NON SELF PROPELLED	ELECTRIC DRIVE	GASOLINE ENGINE	DIESEL ENGINE	STEAM ENGINE	SAIL	JET DRIVE	TOTAL
CABLE	4	1		4				9
DREDGE	430	3	6	31	1			471
OIL EXPLOITATION	237	4	10	2,389	2		1	2,643
FERRY	67	27	12	135	18		5	264
FIREBOAT		3	3	30			1	37
FREIGHT	19,681	32	142	722	573	12	1	21,163
FISHING	48	1	5,162	20,816		45	51	26,123
LIGHTERING	26			2				28
PASSENGER	33	33	2,396	5,223	30	33	17	7,765
PILE DRIVING	48		5	11				64
PLEASURE	1		36	43				80
PILOT BOAT			8	111				119
POLICE BOAT	1		35	7				43
PATROL BOAT			22	30			1	53
TANKER	2,548	67	2	112	181			2,910
TOWING		75	107	6,638	26		-	6,846
YACHTING	34	1	27,029	22,417	6	438	4	49,929
MISCELLANEOUS	471	40	154	771	3	6	7	1,452
TOTAL	23,629	287	35,129	59,492	840	534	88	119,999

**DOCUMENTED VESSELS OF THE UNITED STATES
SERVICE VS. GROSS TONS**

	≤15	16-100	101-200	201-300	301-1000	>1000	TOTAL
CABLE		5	1	2		1	9
DREDGE	19	118	61	44	217	12	471
OIL EXPLOITATION	448	1,339	452	203	107	94	2,643
FERRY	10	133	25	12	49	35	264
FIREBOAT	2	16	10	4	5		37
FREIGHT	267	889	1,546	3,429	14,006	1,026	21,163
FISHING	11,974	11,978	1,773	108	285	5	26,123
LIGHTERING		5	2	1	17	3	28
PASSENGER	3,819	3,863	14	11	36	23	7,766
PILE DRIVING	10	31	12	3	8		64
PLEASURE	47	30	1	1	1		80
PILOT BOAT	30	78	4	2	5		119
POLICE BOAT	35	6	1		1		43
PATROL BOAT	26	27					53
TANKER	5	70	56	48	1,913	818	2,910
TOWING	666	3,468	1,619	493	599	1	6,846
YACHTING	27,420	22,237	240	21	10	1	49,929
MISCELLANEOUS	268	559	131	87	234	172	1,451
TOTAL	45,046	44,852	5,948	4,469	17,493	2,191	119,999

**DOCUMENTED VESSELS OF THE UNITED STATES
HOMEPORT VS. SERVICE**

	CABLE	BRIDGE	OIL EXPLORATION	FERRY	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MISCELL- LANEBOAT	TOTAL
ALABAMA																		
MOBILE-GULF		13	6		14	513		106			4		1	14	113	181	10	1110
MOBILE RIVERS				1	132			1	1					8	60	18	1	222
ALASKA																		
JUNEAU		3	7	1	28	2174		86	4	35				22	79	138	33	2869
KETCHIKAN				2	140	553		15		6			1	1	29	17	17	782
SITKA					26	201		10							28	23	2	290
WRANGELL					45	381		8		2					22	7	6	451
CALIFORNIA																		
EUREKA					1	429		14							2	13	2	461
LA/LB		6	10	2	2	667		302			4		5	12	68	1978	46	3212
SAN DIEGO					6	393		150	1		1			1	13	515	22	1102
SAN FRANCISCO		6	2	12	140	1513		248			4		2	54	188	1525	70	5024
CONNECTICUT																		
BRIDGEPORT		3		2	2	34		16						1	9	676	5	748
HARTFORD			10	1	2	6		1	14							422		456
NEW HAVEN		10			1	20		11							5	284	4	339
NEW LONDON					7	44		47							9	353	11	471
DELAWARE																		
WILMINGTON		10	66	3	3595	71	1	160						792	468	2601	62	7829
DIST. OF COLUMBIA																		
WASHINGTON		3		1	6	657		218							13	2153	20	2671
FLORIDA																		
APALACHICOLA		1				135		13			1			3	7	11	1	172
JACKSONVILLE		1		3	94	464		115	2		4			21	92	516	11	1325

DEPARTMENT OF THE UNITED STATES
 HOMEPORT VS. SERVICE

FLORIDA Cont'd	CABLE	DREDGE	OIL EXPLOITATION	FERRY	FIREBOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MISCEL. LANGOUR	TOTAL
KEYWEST	1	16				60	362	1	402	3		5			23	93	1834	26	2824
MIAMI	1		16			6	326		267			2			15	25	181	7	847
PENSACOLA						329	914		331			1			9	95	1069	17	2783
TAMPA	1	17				10	121		145	1		1				14	669	6	968
WEST PALM BEACH																			
GEORGIA																			
BRUNSWICK						1	213		9			1				8	22	2	254
SAVANNAH		6				34	169		25			2			6	46	251	2	343
HAWAII																			
HONOLULU		1				35	107		239						1	29	495	15	922
ILLINOIS																			
CHICAGO-LAKE	1	5	6		1	22	18		56					1	8	19	2419	19	2575
CHICAGO-RIVER		3	2			436	3		17						31	83	125	14	714
INDIANA																			
EVANSVILLE						46									3	32	100	1	186
KENTUCKY																			
LOUISVILLE		3		11		562		2	8				1		37	160	894	13	1691
LOUISIANA																			
BATON ROUGE-GULF		6	55	4		6	20		16						1	19	104	14	245
BATON ROUGE-RIVER		15	3	19		57	1		17						43	123	10	20	308
HOUMA		1	547			54	768		17					1	97	388	12	5	1090
LAKE CHARLES			55			23	92		3			1			5	50	12	3	244
MORGAN CITY		5	601	1		54	279		7						42	258	17	39	1303
NEW ORLEANS-GULF	1	9	710			1874	563		55			1		3	43	108	326	62	3769

**DOCUMENTED VESSELS OF THE UNITED STATES
HOMEPORT VS. SERVICE**

	CABLE	DRAGGE	OIL EXPLORA- TION	FERRY	PIRCSOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	FILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MARCEL. LABOUR	TOTAL	
LOUISIANA Cont'd																				
NEW ORLEANS-RIVER		38	23	10	2	404	6	6	14	2		9			178	611	3	41	1349	
MAINE																				
BANGOR																	24		24	
BAR HARBOR				1		8	60		17								133	1	220	
BATH						11	115		29					1		5	115	2	278	
BELFAST							23		3					1		2	50		79	
CALAIS																				
EASTPORT						5	3		3								6		17	
JONESPORT						5	31		1								10		47	
PORTLAND		3			1	22	89		30			2			8	6	205	1	367	
ROCKLAND		2		5		15	145		21					1	1	4	161	5	360	
MARYLAND																				
BALTIMORE		5			4	78	375		250	3		8	38	2	58	81	1518	35	2455	
CAMBRIDGE				1		14	488		30	3						5	141	4	692	
CRISFIELD				1		26	335		45						1	1	69	4	482	
MASSACHUSETTS																				
BOSTON		4	1		4	28	150	11	127	1		2			16	43	1710	22	2119	
FALL RIVER						1	5		11								53		72	
GLOUCESTER		1				6	236		70				1		1	1	267	2	519	
NEW BEDFORD				2		3	365		68			1			5	17	448	10	919	
PLYMOUTH						4	172		97	1		2				3	301	6	586	
SALEM		1				3	57		34			3				4	418	1	521	
MICHIGAN																				
DETROIT		23		3		59	5		30	10				1	4	39	440	9	623	

DOCUMENTED VESSELS OF THE UNITED STATES
HOMEPORT VS. SERVICE

HOMEPORT	CABLE	DREDGE	OIL EXPLORATION	FERRY	FIREBOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MISCELLANEOUS	TOTAL	
MICHIGAN Cont'd																				
MUSKEGAN		30		8		6	16		72	1					1	26	230	24	418	
PORT HURON		9		6		5	12		17	4					1	14	56	2	126	
SAULT STE MARIE		5		4		23	101		49	2					4	14	99	18	319	
MINNESOTA																				
DULUTH-LAKE		9		1		58	63		43	2		3				29	188	21	417	
DULUTH-RIVER		1				8	4		4							3	2		22	
MINNEAPOLIS		1	2	1		1035	3		28						2	79	777	3	1931	
MISSISSIPPI																				
BILOXI		1	28			10	434		77			1	1		5	26	233	4	820	
GREENVILLE		7				758			1						104	132	5	1	1008	
MISSOURI																				
ST LOUIS		17	1	10		1498	3		39	1					166	390	1032	24	2174	
NEW HAMPSHIRE																				
PORTSMOUTH							50		51							1	572	2	628	
NEW JERSEY																				
PENH AMBOY						2	47		91			1				7	256	1	405	
NEW YORK																				
ALBANY		1		7		37	1		7						1	18	332	1	405	
BUFFALO		1				28	6		1	2					1	10	326	2	370	
CAPE VINCENT		1				2			17			2					10		37	
NEW YORK	3	26	9	17	8	2397	368	3	873	1		8			325	343	6889	79	9349	
OGDENSBURG		1				2			1							1	3	5	15	
OSWEGO		1				1			6						2	12	212	8	243	
ROCHESTER					1				2							2	280	5	290	

**DOCUMENTED VESSELS OF THE UNITED STATES
HOMEPORT VS. SERVICE**

	CABLE	DREDGE	OIL EXPLORATION	FERRY	FIREBOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MISCELLANEOUS	TOTAL
NORTH CAROLINA																			
BEAUFORT		2		7		6	330		93			2		2		13	94	7	556
ELIZABETH CITY		3		9		3	94		58						1	7	57	4	236
WASHINGTON		1				1	186		10							2	81	1	284
WILMINGTON		4		1		7	186		84			2		1	7	31	294	8	625
OHIO																			
CINCINNATI		4		6		2158	1	11							24	186	1135	15	3610
CLEVELAND		9		1	1	2	20	5	3						9	7	645	21	744
SANDUSKY		1		1		1	19	28							2	2	84	9	147
TOLEDO		2				4	18	4	1							5	132	7	173
OREGON																			
ASTORIA		2		1		1	443	79								14	12	1	570
COOS BAY		5				2	745	60				1				34	100	4	974
PORTLAND		1		2	3	18	383	241					1		22	181	519	17	1564
PENNSYLVANIA																			
ERIE				1			9	3							1	1	109	2	133
PHILADELPHIA		4		3	3	7	312	381				5			49	84	3641	22	4596
PITTSBURG		5		6		700	3	15							131	242	209	6	1323
RODE ISLAND																			
NEWSPORT							59	22								4	158	2	248
PROVIDENCE				1		4	127	48				3			1	9	629	6	1323
SOUTH CAROLINA																			
CHARLESTON		11		1	1	1	340	82				5			5	38	245	8	747
TENNESSEE																			
MEMPHIS		3	1	16		180		72							37	190	250	2	701

**DOCUMENTED VESSELS OF THE UNITED STATES
HOMEPORT VS. SERVICE**

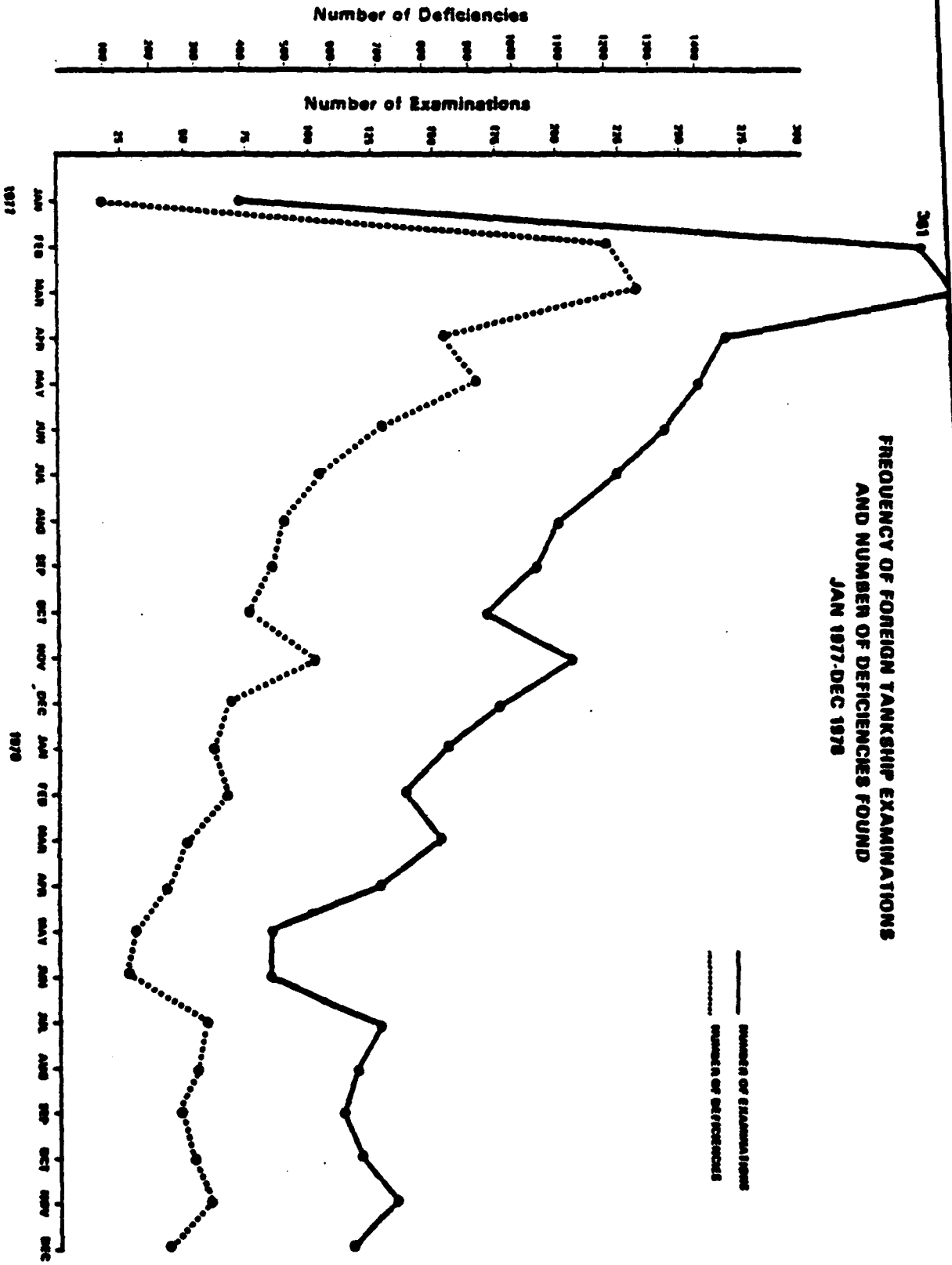
HOMEPORT	CABLE	DREDGE	OIL EXPLOITATION	FERRY	FIREBOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MISCEL- LANEOUS	TOTAL	
TENNESSEE CONT'D																				
NASHVILLE		2	1	4		38	1	15							3	56	234	2	356	
TEXAS																				
BROWNSVILLE			2																	
CORPUS CHRISTI		5	112	6		8 521		12				1			2	4	36	2	588	
GALVESTON		2	56	4		18 637		48	1			2			22	85	180	19	1132	
HOUSTON		15	267	2		211 163		45	2			2			30	68	92	36	992	
PORT ARTHUR		1	17			59 103		44				1			177	255	748	116	2001	
VIRGINIA								7							72	119	64	36	481	
CAPE CHARLES				1		3 177		20												
NORFOLK		28		7		102 471		142							25	31	145	967	25	951
REEDVILLE						22 496		23							2	4	183	4	734	
WASHINGTON																				
ABERDEEN		1				4 415		113				2								
BELLINGHAM		1		3		48 646		19	3						1	21	145	6	891	
PORT ANGELES						3 157		11	1			2				5	33	2	216	
PORT TOWNSEND						3 60		7												
SEATTLE	1	10	4	28	3	407 1302		114	6	28		1	1	3	15	222	1597	57	2799	
TACOMA				4		59 323		20		5					1	26	343	4	786	
WISCONSIN																				
MILWAUKEE LAKE					1	60 92		103							6	26	706	23	1022	
MILWAUKEE RIVER						451	11	33							3	21	6	2	427	
TERRITORIES																				
GUAM						1		7								8	7		23	
PUERTO RICO & V.I.	7			1		38	94	1	137	1					3	20	409	15	723	

SECTION IV

FOREIGN FLAG TANK VESSEL EXAMINATION PROGRAM

- I. Frequency of Examinations and Number of Deficiencies Found - January 1977-December 1978 V-2
- II. Percent Examinations vs. Percent Deficiencies for Selected Flags V-3
- III. Comparison of Deficiencies/Examinations for Selected Fleets - 1977 and 1978 V-4
- IV. Most Frequent Deficiencies by Major Flag V-5
- V. Vessel Age vs. Deficiency Type V-6
- VI. Statistics for Major Ports V-7

**FREQUENCY OF FOREIGN TANKSHIP EXAMINATIONS
AND NUMBER OF DEFICIENCIES FOUND
JAN 1977-DEC 1978**



Foreign Tanker Examination Program Percent Examinations Vs. Percent Deficiencies

Jan. 77 - Dec. 78

Country	Vessel Examinations		Deficiencies	
	No. & % of Total	No. & % of Total	No. & % of Total	No. & % of Total
Liberia	1486	34.9	3822	33.5
Panama	302	7.1	680	6.0
Greece	638	15.0	2576	22.6
Norway	470	11.0	1301	11.4
Great Britain	337	7.9	736	6.4
Japan	122	2.8	349	3.1
Singapore	131	3.1	160	1.4
Netherlands	63	1.5	36	0.3
Italy	81	1.9	216	1.9
France	51	1.2	131	1.2
Finland	50	1.2	122	1.1
Denmark	44	1.0	32	0.3
W. Germany	68	1.6	196	1.7
S. Korea	42	0.9	135	1.2
USSR	48	1.1	125	1.1
Spain	32	0.7	155	1.4
Mexico	44	1.0	156	1.4

Foreign Tanker Examination Program

Comparison of Deficiencies/Examinations for Selected Fleets During 1977 & 1978

Registry	1977				1978			
	Num. of Def.	Num. of Exams	Def./Exam	Num. of Def.	Num. of Exams	Def./Exam		
Liberia	3079	1016	3.03	743	471	1.58		
Panama	457	201	2.27	223	101	2.21		
Greece	1703	387	4.40	873	251	3.48		
Norway	947	311	3.05	364	159	2.23		
U.K.	470	208	2.28	268	131	2.03		
Japan	168	70	2.4	181	52	3.48		
Singapore	79	75	1.05	81	56	1.45		
Italy	150	51	2.94	68	30	2.2		
Mexico	74	23	3.21	82	21	3.90		
Spain	118	23	5.13	37	9	4.11		
W. Germany	143	48	2.97	53	20	2.65		
Netherlands	20	44	.45	16	19	.84		
Total (All Exams)	8135	2769	2.94	3281	1487	2.21		

**FOREIGN TANKER EXAMINATIONS
MOST FREQUENT DEFICIENCIES
BY MAJOR FLAG**

		NUMBER OF DEFICIENCIES AND % OF TOTAL										
	VENT SYSTEM	PUMP ROOM	CARGO PUMPS	FIRE PROTECTION	ELECTRICAL SYSTEM	NAVIGATION SAFETY	CARGO HANDLING EQUIP.	POLLUTION PREV. REGR.	OTHER			
LIBERIA	1,211/34.6	343/37.8	627/37.1	278/33.7	239/34.1	397/28.6	391/33.2	125/22.5	211/31.3			
PANAMA	235/ 6.7	46/ 5.1	79/ 4.0	33/ 4.0	51/ 7.3	85/ 6.1	86/ 7.3	20/ 3.6	45/ 6.7			
GREECE	719/20.6	198/21.8	465/27.5	200/24.2	153/21.9	354/25.5	225/19.1	120/21.6	142/21.1			
NORWAY	376/10.8	103/11.3	157/ 9.3	96/11.6	65/ 9.3	172/12.4	187/15.9	69/12.4	76/11.3			
GREAT BRITAIN	204/ 5.8	49/ 5.4	45/ 2.7	64/ 7.8	58/ 8.3	83/ 6.0	113/ 9.6	57/10.3	63/ 9.4			
JAPAN	105/ 3.0	24/ 2.6	55/ 3.3	39/ 4.7	12/ 1.7	44/ 3.2	25/ 2.1	23/ 4.1	22/ 3.3			
SINGAPORE	47/ 1.3	11/ 1.2	24/ 1.4	13/ 1.6	12/ 1.7	19/ 1.4	15/ 1.3	10/ 1.8	9/ 1.3			
NETHERLANDS	16/ .5	4/ .4	5/ .3	1/ .1	0/ 0.0	8/ .6	2/ .2	0/ 0.0	0/ 0.0			
ITALY	74/ 2.1	15/ 1.7	47/ 2.8	14/ 1.7	17/ 2.4	20/ 1.4	10/ .9	9/ 1.6	10/ 1.5			
FRANCE	62/ 1.8	9/ 1.0	12/ .7	5/ .6	4/ .6	12/ .9	10/ .9	15/ 2.7	2/ .3			
DENMARK	5/ .1	5/ .6	4/ .2	2/ .2	3/ .4	2/ .1	5/ .4	4/ .7	2/ .3			
W. GERMANY	54/ 1.5	12/ 1.3	29/ 1.7	20/ 2.4	7/ 1.0	27/ 2.0	20/ 1.7	15/ 2.7	12/ 1.8			
S. KOREA	40/ 1.1	9/ 1.0	24/ 1.4	13/ 1.6	16/ 2.3	15/ 1.1	9/ .8	1/ .2	8/ 1.2			
USSR	31/ .9	12/ 1.3	34/ 2.0	4/ .5	6/ .9	5/ .4	10/ .9	16/ 2.9	7/ 1.0			
SPAIN	82/ 2.4	5/ .6	31/ 1.8	6/ .7	4/ .6	12/ .9	5/ .4	6/ 1.1	4/ .6			
FINLAND	44/ 1.3	13/ 1.4	20/ 1.2	8/ 1.0	6/ .9	15/ 1.1	7/ .6	4/ .7	5/ .7			
MEXICO	48/ 1.4	11/ 1.2	2/ .1	5/ .6	18/ 2.6	22/ 1.6	21/ 1.8	13/ 2.3	16/ 2.4			
TOTAL	3,353/95.9	869/95.7	1660/98.2	801/97.0	671/96.0	1,292/93.3	1141/93.3	507/91.2	634/94.2			

Foreign Tanker Examination Program Age Vs. Deficiency Type

Jan. 77 -- Dec. 78

Age Group	Deficiency Type	Percent of Total Def. of That Type
1-10 Years > 10 Years Age Unknown	Ventilation System, Cargo Piping System, Pump Room, Electrical System, Fire Protection Systems	21.6 77.5 .9
1-10 Years > 10 Years Age Unknown	Cargo Handling Gear	34.6 64.5 0.9
1-10 Years 10 Years Age Unknown	Navigation Safety Regulations	43.4 55.1 1.5

**FOREIGN TANKER EXAMINATION
STATISTICS FOR MAJOR PORTS**

	1	2	3	4	TOTAL DEFICIENCIES	% DEF. EXAMS PER TOTAL EXAMS 2/1 X 100	NO. DEF. PER EXAMS WITH DEFICIENCIES 4/2
ANCHORAGE	33	9	24	68	27.3	2.8	
BALTIMORE	87	52	35	156	59.8	4.5	
BOSTON	108	52	56	191	48.1	3.4	
CHARLESTON	32	21	11	46	65.6	4.2	
CHICAGO	4	3	1	11	75.0	11.0	
CONRAD CHRISTI	139	51	88	313	36.7	3.6	
DETROIT	6	5	1	2	83.3	2.0	
GALVESTON	180	92	88	359	51.1	4.1	
GUAM	12	2	10	50	16.7	5.0	
HONOLULU	104	86	18	53	82.7	2.9	
HOUSTON	136	21	115	1261	15.4	11.0	
HAMPTON ROADS	93	49	44	147	52.7	3.3	
JACKSONVILLE	50	20	30	113	40.0	3.8	
LOS ANGELES	378	220	158	557	58.2	3.5	

	1	2	3	4	TOTAL EXAMINATIONS	TOTAL DEFICIENCY EXAMINATIONS	TOTAL EXAMS WITH DEFICIENCIES	TOTAL DEFICIENCIES	% DEF. EXAMS PER TOTAL EXAMS 2/1 X 100	NO. DEF. PER EXAMS WITH DEFICIENCIES 4/2
MOBILE	18	12	6	63	10.5	66.7	10.5			
NEW ORLEANS	669	327	342	1614	48.9	4.7				
NEW YORK	492	149	343	1447	30.3	4.2				
PHILADELPHIA	190	89	101	505	46.8	5.0				
PONT ARTHUR	708	221	487	2835	31.2	5.8				
PORTLAND, ME	144	67	77	398	46.5	5.2				
PORTLAND, OR.	3	1	2	2	33.3	1.0				
PROVIDENCE	106	85	23	87	78.7	3.8				
SAN DIEGO	3	3	0	0	100	0.0				
SAN FRANCISCO	139	78	61	259	56.1	3.9				
SAN JUAN	141	80	61	231	56.7	3.8				
SAVANNAH	40	33	7	11	82.5	1.6				
SEATTLE	172	78	94	601	45.3	6.4				
TAMPA	24	17	7	21	70.8	3.0				