

AD-A054 027

SACLANT ASW RESEARCH CENTRE LA SPEZIA (ITALY)
MERCHANT SHIPPING IN THE SW APPROACHES TO THE BRITISH ISLES.(U)
NOV 77 J S TARCHI, P BURTON
SACLANTCEN-SM-101

F/G 15/5

UNCLASSIFIED

NL

| OF |
AD
A064 027



END
DATE
FILMED
6-78
DDC

FOR FURTHER TRAN

111



SACLANTCEN Memorandum
SM - 101

AD A 054027

SACLANT ASW
RESEARCH CENTRE
MEMORANDUM

MERCHANT SHIPPING IN THE SW APPROACHES TO THE BRITISH ISLES

by

JESSIE STEELE TARCHI AND PETER BURTON

AD No. []
DDC FILE COPY

1 NOVEMBER 1977

DDC
RECEIVED
MAY 19 1978
D

NORTH
ATLANTIC
TREATY
ORGANIZATION

VIALE SAN BARTOLOMEO 400
I - 19026 - LA SPEZIA, ITALY

This document is unclassified. The information it contains is published subject to the conditions of the legend printed on the inside cover. Short quotations from it may be made in other publications if credit is given to the author(s). Except for working copies for research purposes or for use in official NATO publications, reproduction requires the authorization of the Director of SACLANTCEN.

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

This document is released to a NATO Government at the direction of the SACLANTCEN subject to the following conditions:

1. The recipient NATO Government agrees to use its best endeavours to ensure that the information herein disclosed, whether or not it bears a security classification, is not dealt with in any manner (a) contrary to the intent of the provisions of the Charter of the Centre, or (b) prejudicial to the rights of the owner thereof to obtain patent, copyright, or other like statutory protection therefor.

2. If the technical information was originally released to the Centre by a NATO Government subject to restrictions clearly marked on this document the recipient NATO Government agrees to use its best endeavours to abide by the terms of the restrictions so imposed by the releasing Government.

Published by



OTIS	White Section	<input checked="" type="checkbox"/>
DDO	Dark Section	<input type="checkbox"/>
UNANNOUNCED		<input type="checkbox"/>
JUSTIFICATION		
BY		
DISTRIBUTION/AVAILABILITY CODES		
Dist. AVAIL. and/or SPECIAL		
A		

SACLANTCEN MEMORANDUM SM-101 ✓

NORTH ATLANTIC TREATY ORGANIZATION
 SACLANT ASW Research Centre ✓
 Viale San Bartolomeo 400
 I 19026 - La Spezia, Italy

6 MERCHANT SHIPPING IN THE SW APPROACHES TO THE BRITISH ISLES.

by

10 Jessie Steele / Tarchi ~~and~~ Peter / Burton

9 Memorandum rept.,

11 1 November 1977 /

12 24p.

14 SACLANTCEN-SM-101

This memorandum has been prepared within the SACLANTCEN Operations Research Division.

T. Mack

Terence Mack
 Division Chief

DISTRIBUTION STATEMENT A
 Approved for public release;
 Distribution Unlimited

DDC
 RECEIVED
 MAY 19 1978
 RECEIVED
 D

312 950

JOB

TABLE OF CONTENTS

	<u>Pages</u>
ABSTRACT	1
INTRODUCTION	1
1 SHIPPING ACROSS AREA BOUNDARIES	2
2 SHIPPING PATTERNS	4
3 TYPES OF SHIPS	8
4 SIZE DISTRIBUTION OF SHIP TYPES	10
5 DESTINATIONS OF SHORT-SEA AND OCEAN SHIPPING	14
6 NUMBERS AND SIZES ON EACH TYPE OF ROUTE	16
REFERENCES	18
APPENDIX A - DATA SOURCES	19

List of Figures

1. Southwestern approaches to the British Isles showing boundary lines used in study 3
2. Shipping flow - ships per day in both directions - during the three study periods 5

MERCHANT SHIPPING IN THE SW APPROACHES TO THE BRITISH ISLES

by

Jessie Steele Tarchi and Peter Burton

ABSTRACT

↙ *Merchant shipping flow in and out of Europe through the English Channel and Celtic Sea is analysed in terms of numbers, size, and destination.* ↗

INTRODUCTION

This memorandum presents a study of the flow of merchant shipping to and from northern European ports (including British and Irish) passing through the southwestern approaches to the British Isles. It has been prepared in support of a study of antisubmarine warfare in the English Channel. It gives numbers, sizes, and types of merchant ships (excluding fishing boats and ferries), together with areas of arrival and departure.

Two sources of data were used: Lloyd's List* [1] — a daily newspaper published every day except Sunday — and Lloyd's Register of Shipping* [2]. Lloyd's List gives merchant ship movements to and from ports all over the world, together with their destinations and ports of departure. Lloyd's Register of Shipping lists details of each ship: the type, tonnage, country of registration, etc.

Three periods of one week each have been studied; in November 1975, in February 1976, and in April 1977. Data for all ships entering or passing through the Channel area for these three periods have been extracted and stored. The tables presented represent a digest of this information aimed specifically towards the requirements of the Channel study, but also of general interest in relation to the whole NATO shipping scene.

The tables presented do not represent an exhaustive analysis of the data recorded. Further analysis can be directed towards other specific questions.

* *Specimen pages of Lloyd's List and Lloyd's Register of Shipping are given in Appendix A.*

SHIPPING ACROSS AREA BOUNDARIES

Three boundary lines have been drawn (Fig. 1) to delineate the limits of the English Channel and the adjacent northern Celtic Sea and Bristol Channel area.

- A Land's End to Dursey Head,
- B Land's End to Ile d'Ouessant (Ushant),
- C Dungeness to Cap Gris Nez.

Shipping flows across these boundary lines are given in Table 1 for each of the three study periods.

OBSERVATION ON TABLE 1

The data reflect the generally slow increase in trade that has been taking place since 1975.

TABLE 1

AVERAGE NUMBERS OF SHIPS PER DAY CROSSING BOUNDARIES IN BOTH DIRECTIONS*

	Boundary		
	A	B	C
Nov 75	56	155	167
Feb 76	72	179	184
Apr 77	65	188	189

** All data in this memorandum refer to ships sailing in both directions. To obtain numbers of arrivals only, divide tabulated figures by two.*

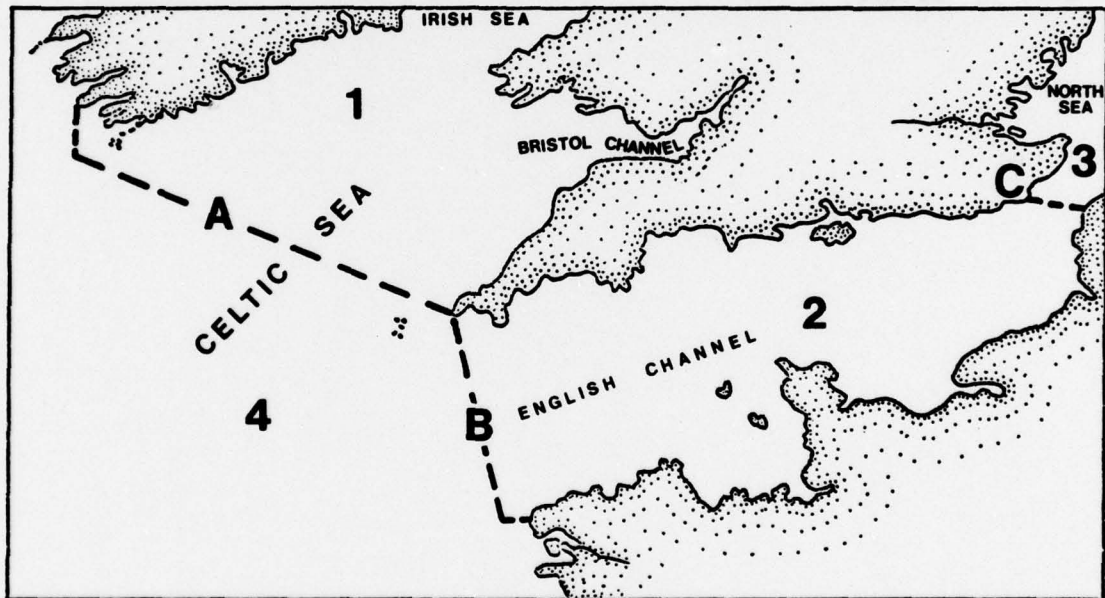


FIG. 1 SOUTHWESTERN APPROACHES TO THE BRITISH ISLES SHOWING BOUNDARY LINES USED IN STUDY

The general patterns of the shipping flow in the three study weeks are shown in Fig. 2 a,b,c. Shipping has been broken down into routes according to the location of the terminal ports. Four areas (see Fig. 1) have been chosen in relation to the boundaries defined earlier. These are:

1. Celtic Sea — British and Irish ports to the east and north of line A (includes Bristol Channel)
2. Channel — English and French ports between lines B and C.
3. North Sea — British and North Europe ports to the east and north of line C, including Baltic ports.
4. Rest of the World — All other ports.

Routes have been defined in terms of terminal ports in these areas, as listed in Table 2.



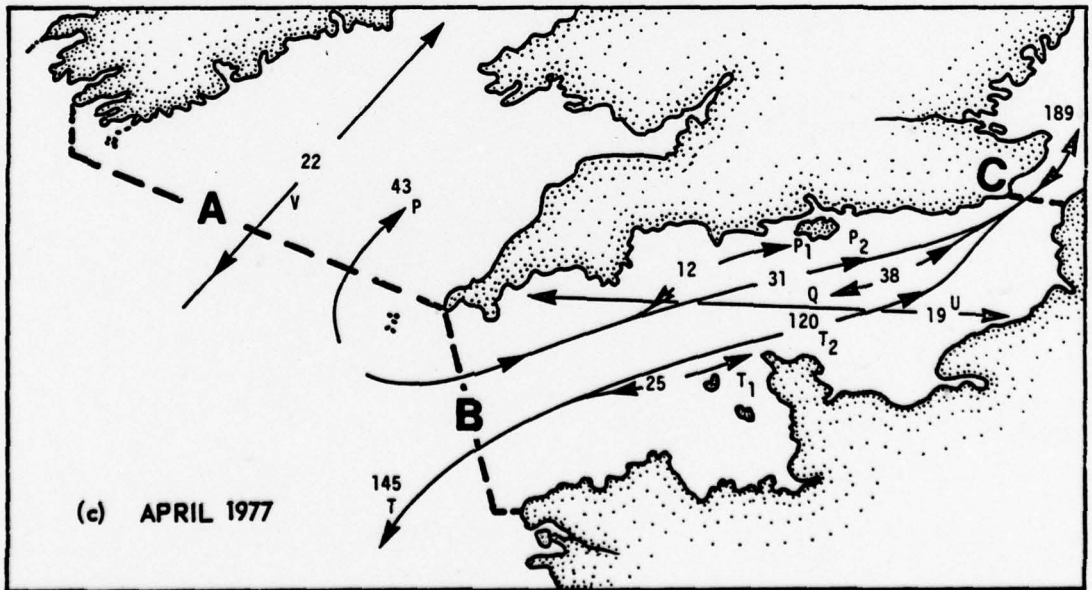
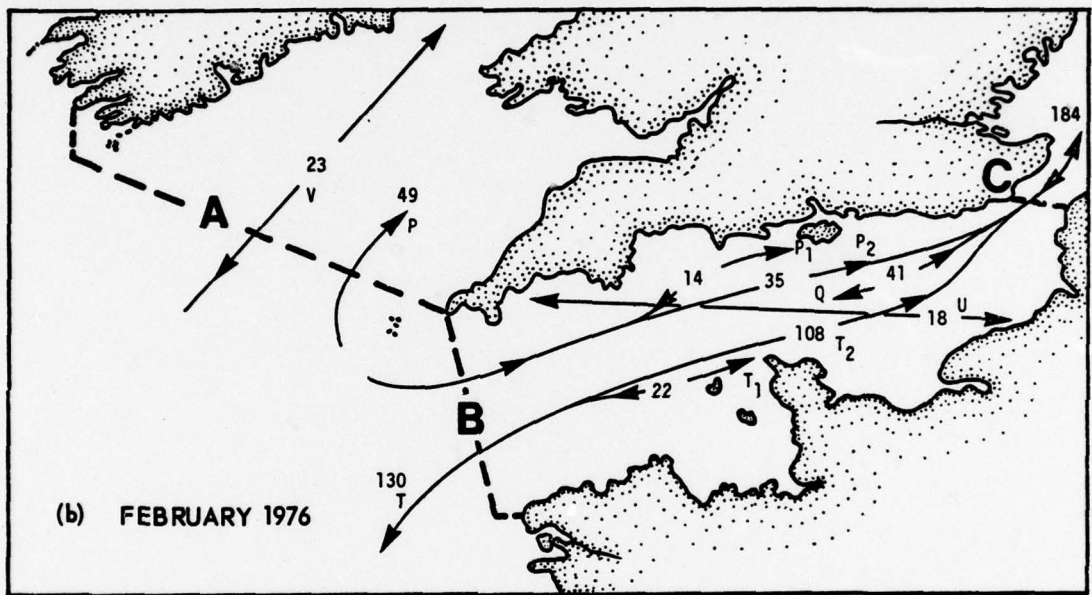
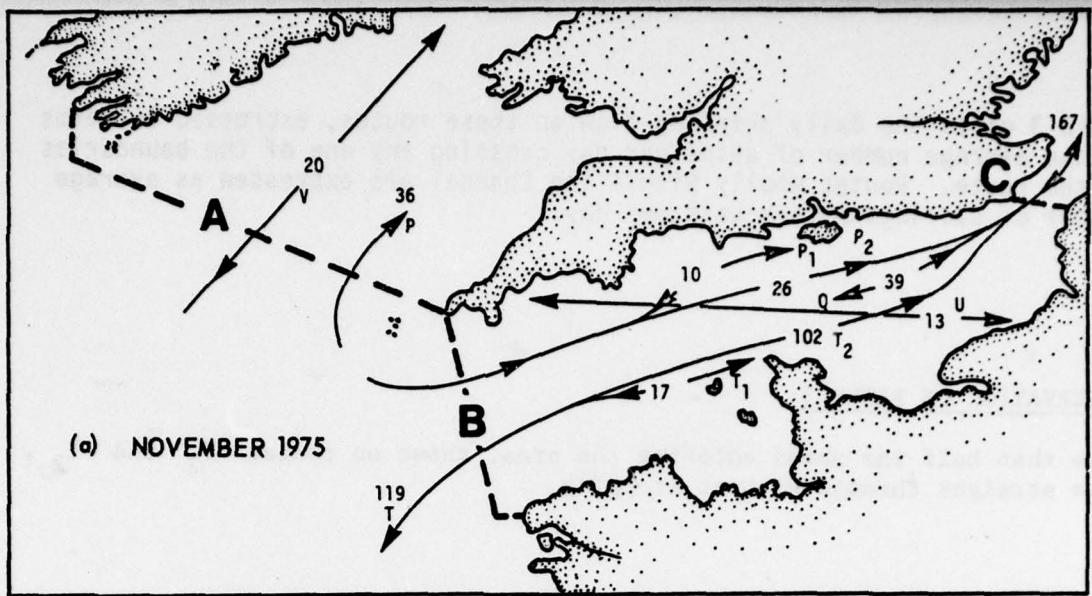


FIG. 2 SHIPPING FLOW — SHIPS PER DAY IN BOTH DIRECTIONS — DURING THE THREE STUDY PERIODS. (Data are tabulated in Table 3.)

Table 3 gives the daily shipping flow on these routes, expressed in terms of the average number of ships per day crossing any one of the boundaries on the route. Routes wholly within the Channel are expressed as average number of sailings and arrivals per day.

OBSERVATION ON TABLE 3

More than half the ships entering the area, those on routes P_2 and T_2 , pass straight through without stopping.

TABLE 2

R O U T E S

	<u>Route Indicator</u>		<u>Terminal Ports</u>	<u>Boundary Crossing</u>
Coastal Routes	P	P ₁	Celtic Sea - Channel	A, B
		P ₂	Celtic Sea - North Sea	A, B, C
	Q		Channel - North Sea	C
	U		Within Channel	-
Short Sea* and Ocean Routes	T	T ₁	Rest of World - Channel	B
		T ₂	Rest of World - North Sea	B, C
	V		Rest of World - Celtic Sea	A

* Short sea routes terminate between Brest and Gibraltar or in the Mediterranean (see Table 9).

TABLE 3

SHIPPING FLOW

(ships per day in both directions)

	Coastal				Short Sea & Ocean			Total*
	P ₁	P ₂	Q	U	T ₁	T ₂	V	
Nov 75	10	26	39	13	17	102	20	227
Feb 76	14	35	41	18	22	108	23	261
Apr 77	12	31	38	19	25	120	22	267

* The totals represent the average number of ships per day entering and leaving the area. Ferries, fishing boats, and pleasure craft are excluded.

Shipping on all routes has been classified by four main types of ships, as shown in Table 4. These are: tankers, bulk carriers, general cargo, and container ships. Other specialized types, such as gas tankers, roll-on/roll-off (RO/RO), combined carriers (OBO), combined container/general cargo, are classified as 'others'. There are a small number, usually very new ships, that do not appear in Lloyd's Register. These are classified as 'Unknown'.

OBSERVATIONS ON TABLE 4

1. The increase in shipping between Nov 75 and Apr 77 appears mainly as an increase in general cargo ships.
2. Specialized types of ships, e.g. containers and those appearing under 'others', show the largest relative increase.
3. The reduction in number of tankers between Nov 75 and Apr 77 is accompanied by an increase in size (see Table 5).

TABLE 4

SHIPS ON ALL ROUTES

(ships per day in both directions)

	Tankers	Bulk Carriers	General Cargo	Container	Others	Unknown	Total
Nov 75	42	17	131	8	26	3	227
Feb 76	46	17	153	7	28	9	261
Apr 77	39	18	154	11	34	12	267

4 SIZE DISTRIBUTION OF SHIP TYPES

The distribution of the size of the principal types of ship on all routes is presented in Tables 5, 6, 7, and 8.

OBSERVATIONS ON TABLE 5

1. The large number of small tankers between 1000 and 5000 dwt are employed mainly on coastal and short sea routes.
2. The considerable number of tankers between 20 000 and 50 000 dwt are used:
 - a. For off-loading from VLCCs (Very Large Crude Carriers).
 - b. For the carriage of crude oil on ocean routes where no ports are available for very large tankers, e.g. east coast of USA.
 - c. As oil-products tankers.
3. A trend towards larger VLCCs is seen between Nov 75 and Apr 77.

OBSERVATIONS ON TABLE 6

1. Grain carriers form the peak in the distribution between 20 000 and 30 000 dwt.
2. Ships larger than 60 000 dwt are mainly ore carriers.
3. Small bulk carriers specifically for coastal routes are uncommon.

TABLE 5

SIZE DISTRIBUTION OF TANKERS
(in thousands of dead-weight tonnes)

	0-1	1-5	5-10	10-20	20-50	50-100	100-200	200-300	> 300
Nov 75	13	121	13	27	64	18	8	25	2
Feb 76	16	143	16	29	61	18	7	30	3
Apr 77	6	112	12	27	62	15	6	31	4

TABLE 6

SIZE DISTRIBUTION OF BULK CARRIERS
(in thousands of dead-weight tonnes)

	0-10	10-20	20-30	30-40	40-50	50-60	> 60
Nov 75	3	13	42	19	7	7	25
Feb 76	3	16	46	11	9	10	26
Apr 77	3	17	54	15	4	7	25

OBSERVATIONS ON TABLE 7

1. The large numbers of general cargo ships smaller than 3000 dwt are used on coastal and short sea routes.
2. The average size of ocean-going general cargo ships is increasing. 10 000 to 15 000 dwt is now the most common size on ocean routes.

OBSERVATIONS ON TABLE 8

Container ships fall into three classes:

- a. Smaller than 4000 dwt for coastal and short sea routes.
- b. 15 000 to 25 000 dwt for most ocean routes.
- c. Larger than 35 000 dwt for the longest ocean routes (e.g. Europe to Far East).

TABLE 7

SIZE DISTRIBUTION OF GENERAL-CARGO SHIPS
(in thousands of dead-weight tonnes)

	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	20-30	> 30
Nov 75	49	167	229	122	48	31	42	21	31	37	14	90	29	3	6
Feb 76	48	204	231	145	55	46	31	23	34	26	38	136	44	4	3
Apr 77	52	180	238	146	80	34	28	25	35	31	41	140	37	7	1

TABLE 8

SIZE DISTRIBUTION OF CONTAINER SHIPS
(in thousands of dead-weight tonnes)

	0-2	2-4	4-6	6-8	8-10	10-15	15-20	20-30	30-40	40-50
Nov 75	8	17	0	0	0	7	6	11	2	5
Feb 76	7	10	2	0	2	2	14	10	2	3
Apr 77	9	10	2	2	0	7	19	9	9	7

Routes T and V (Table 2) include all short-sea and ocean shipping between northern Europe ports and the 'Rest of World' that enter or pass through the area. Routes T and V can thus be broken down into sub-routes to and from the area, defined in terms of the major world areas shown in Table 9.

The flow of ships of all types on these routes is given in Table 10.

OBSERVATIONS ON TABLE 10

1. "Biscay" and Mediterranean shipping, B and M, (which are the short sea routes) form about 50% of the total numbers.
2. Middle East routes (P) carry relatively few ships. Most are of very large tonnage.
3. The main growth areas are: "Biscay" (B), Mediterranean (M), West Africa (W).
4. Middle East routes (P) are returning to levels existing before the 1973 oil crisis.

TABLE 9

SHORT-SEA AND OCEAN ROUTES

	<u>Route Indicator</u>	<u>Area</u>	<u>Regions included</u>
Short-Sea Routes	{ B	"Biscay"	Brest to Gibraltar
	{ M	Mediterranean	Gibraltar eastwards
Ocean Routes	{ N	North America	Canada, USA, Caribbean, Panama Canal
	{ W	West Africa	Gibraltar to Cape Town
	{ P	Middle East	Persian Gulf, Red Sea
	{ S	South America	South of Panama Canal zone
	{ E	East Africa	Port Elizabeth to Persian Gulf
	{ F	Far East	Asia, Australasia

TABLE 10

SHIPPING FLOW ON SHORT-SEA AND OCEAN ROUTES
(ships per day in both directions)

	B	M	N	W	P	S	E	F	Total
Nov 75	32	36	27	18	8	7	3	8	139
Feb 76	38	36	27	21	9	9	4	9	153
Apr 77	41	41	25	26	12	10	2	11	168

The sizes of ships of any one type are strongly dependent on the route on which they are employed. Table 11 gives the numbers and average sizes of ships employed on coastal, short-sea, and ocean routes (see Table 2 for description of routes).

OBSERVATIONS ON TABLE 11

1. On coastal and short-sea routes three types of tankers are found: small tankers of average 3000 to 4000 dwt, tankers of about 50 000 dwt for off-loading the VLCCs, partly unloaded VLCCs.
2. On coastal routes two types of container ships are found: coastal container ships of 1000 to 2000 dwt and ocean-going container ships larger than 15 000 dwt that load at several N. European container ports before proceeding on their ocean voyage.
3. On West Africa and Middle East routes, W and P, very few container ships are found. Containers are carried in general cargo ships, RO/ROs, or other vessels that do not require special port facilities.
4. The low average dwt of general cargo ships on the N. America route, N, results from trade in small ships on secondary routes: for example, to the West Indies and Central America. Non-bulk cargoes to USA are carried mainly in container and other specialized ships.
5. A significant proportion of crude oil imports is carried in OBOs.

TABLE 11

TOTAL NUMBERS AND AVERAGE dwt OF SHIPS ON COASTAL, SHORT SEA, AND OCEAN ROUTES
(Nov 75, Feb 76, Apr 77)

	COASTAL		SHORT SEA		OCEAN							
	T + Q + U		B + M		N		W		P		S + E + F	
	No.	Av. dwt x 10 ³	No.	Av. dwt x 10 ³	No.	Av. dwt x 10 ³	No.	Av. dwt x 10 ³	No.	Av. dwt x 10 ³	No.	Av. dwt x 10 ³
Tankers	24	12	8.5	20	2.5	35	1.5	74	5	220	1	23
Bulk carriers	2	21	2	26	8	42	2	41	-	-	3	48
General cargo	55	3.5	53	3.8	8	8.3	14	6.4	3	11	12	12
Container	2.5	14	2	3.2	3	20	-	-	-	-	1	37
Others*												
Type A	1	64	0.5	44	1	63	0.5	66	1	173	1.5	101
Type B	10	3.1	5	5.2	3	17	2.5	7.6	1	8.0	1.5	8.8

* 'Others, Type A' include OBOs, Ore Carriers, etc.

'Others, Type B' include RO/RO, LASH, mixed cargo/container, etc.

REFERENCES

1. LLOYD'S LIST, London, U.K.: Lloyds of London Press Ltd, 1734 ... daily.
2. LLOYD'S REGISTER OF SHIPPING. Register of Shipping 1976-77. London, U.K., Lloyd's Register of Shipping, 1976.

REGISTER OF SHIPS 1977-78

ERMA

6703240	ERMA	3 859 1 818		1966	G. Dimitrov Shipyard—Varna	M Tanker	Oil		
	The People's Republic of China People's Republic of China			131.07	16.01	15 Ta ER			10.5kn
				1 dk					
8105859	ERMINE	108		1943	Seattle, Wa	Wood TM Fishing Side-fishing	2 Oil each 3Cy. 149kW (200bhp) Superior Engine Co.		
WA4729		93		24.39	7.57	Mchy. aft			
244852	C W C Fisheries Inc.			24.39	7.52 2.04				
Rdr RT	Ketchikan, Ak United States of America			1 dk					
5106661	ERMINE	101 36		1960	Schepb. K. Hakvoort—Monnickendam	M Fishing Side-fishing	Oil 2SA 6Cy.		
	O. Wille Federal Republic of Germany			26.88	6.25	(95) Mchy. aft	N.V. Mch. Boines	Krimpen	
7234521	ERMINIA PRIMA	72 730 63 728		1973	Italcantieri S.p.A.—Mil	S Ore/Oil Carrier	2 S Turb dr geared to sc shaft 20 888kW (28 000bhp) Ansaldo Meccanico Nucleare S.p.A	Gen	
IBLC		136 182		297.29	40.55 16.479	10 Ho 12 Ta ER G.89 482 L.80 760 10 Ha (all)			16.5kn
878	S.I.T.A. Siciliana Tanker S.p.A.			279.94	40.75 22.26				
DI Ead	Palermo Italy			1 dk					
Gc Pfd									
Rdr RT									
5426988	ERMINIO BORIO	171 81		1955	Cant. Nav. ICAN—Pesaro	M Fishing Side-Trawler	Oil 4SA 6Cy 265 x 410 338kW (450bhp) Ansaldo Stab. Mecc.	Gen	
IRCZ	ex Nicole Marchogiani-63			35.01	6.76				
553	Giorgio Melchiorri			28.71	6.53 3.71				
Ead Rdr	Rome Italy								
7214823	ERMIS	15 951 11 711 30 255	Φ100A1 strengthened for heavy cargoes. Nos. 2 & 5 holds may be empty ΦLMC	1972-9	N.V. Boelwerf S.A.—Ternse	M Bulk Carrier	Oil 2SA 6Cy 700 x 1200 8 356kW (11 200bhp) A.C.E.C. Gen 3 x 450kW 440V 60Hz a.c. Fuel 274.5t (d.o.) 1 945.5t (hvf)	MAN Gnt	
SWUA	Estrella Valiente Navegacion S.A.			190.02	22.99 10.808	6 Ho 19.5 20.4 26.9 21.0 26.9 23.1 ER G.36 984 B.35 236 6 Ha (11.1 16.6 18.2 14.1 18.2 14.1 x 9.9) ER 18W Der 6(20) 1(5)			15.5kn
DI Ead	Praeus Greece			181.03	22.93 14.51				
Gc Rdr				P 33.3 F 16.8 1 dk r f nil					
RTMvV				UMS EL Lt 2 1/3 U3 88H WB8517t incl. Comb. btm. side & topside tanks in holds 7807t					
5011640	ERMIS	7 323 3 987	Φ100A1 Ice Class 3 ΦLMC	SS 1/73	1960-10	Kieler Howaldtswerke A.G.—Kiel	M General Cargo	OSD/CSD	
SXGT	ex Aktman-74				157.84	19.59 9.278	1 Ho 34.8 ER G.1 090 B.1 005 2 Ha (each 12.1 x 5.0) ER 2W Der 2(3)		Win
1771	in Cie. Naviera S.A.				19.50	12.04			
DI Ead	Praeus Greece	8 969			P 7.1 F 14.7 1 dk & S dk r f 152				
Gc Rdr		5 911 13 997			Coll BH to S dk 7 to 2nd dk WB3328t incl. Tunnel tanks 105t DTM1407t				
8221221	ERMIS	500		1957-12	Ams. Schb. G. de Vries Lentich	M General Cargo	Oil 4SA 6Cy 320 x 450 492kW (660bhp) Klockner-Humboldt-Deutz Gen 2 x 7.5kW 110V d.c. Fuel 59.0t (d.o.)	Kin	
SV3399	ex Buchholz-71 ex Mare Bonum-69	303			59.09	9.78 3.734			
98	ex Anne F-63	863	ΦLR class withdrawn 23/4/76		52.76	9.26 4.07			
DI Ead	A. Sclougeas Michael Giginis Thessaloniki Greece				P 14.7 F 9.5 1 dk RW r f 102				10.5kn
Rdr RTM									
7387448	ERMITA DE SAN ROQUE	194 76		1974	Ast. Gordon—Gjn	M Fishing Side-Trawler	Oil 4SA 6Cy 315 x 480 448kW (600bhp) Carmelo Unanue	Duvant Zumaya	10kn
EGRD	Cooperativa de Productos Pesqueros			30.74	7.01 3.398				
DI Ead	Gujan Spain			25.50	6.99 3.71				
Rdr RT				1 dk					
6721516	ERMOUPOULIS	34 827 24 020 2780		1967	Kawasaki Dtyd Co. Ltd.—Kob	M Ore/Bulk/Oil Carrier	Oil 2SA 6Cy 880 x 1600 13 726kW (18 400bhp) Kawasaki Dtyd Co. Ltd. Gen 1 x 560kW 2 x 400kW 445V 60Hz a.c. Fuel 3 915.0t (hvf)	MAN Alashi	16.75kn
ELAR	ex Golar Obo-72				243.42(88)	32.26 13.647			
2780	Cia. Ulysses S.A.				230.00	32.19 19.51			
DI Ead	Monrovia Liberia				F 19.2 1 dk r f 152				
Gc Rdr									
RTV									
5130939	ERMOUPOULIS	142 102 356		1947	Cant. Nav. Fili Accinelli—Italy	M General Cargo	Oil 4SA 6Cy 210 x 320 112kW (150bhp) E made 34 fitted— Deutzwerke Fuel 10.0t (d.o.)	Kiel 8kn	
2234	ex Giovanna de Piro-65 ex Fortune-58 ex Pirata P. Skouris & I. Efthymiou Praeus Greece			30.43	5.16 2.439				
				27.08	3.05				
				1 dk					
7303796	ERMUA	30 074 20 027 54 889	Φ100A1 strengthened for ore cargoes. Nos. 2, 4 & 6 holds may be empty ΦLMC	1973-5	Ast. Espanoles S.A.—Bbo	M Bulk Carrier	Oil 2SA 6Cy 900 x 1550 11 190kW (15 000bhp) Ast. Espanoles S.A. 2 AuxB (1 of 1 as gl) 0.69MPa (7kg/cm ²) Gen 3 x 400kW 450V 60Hz a.c. Fuel (hvf)	Suzar Sestao	15kn
EEFL	Naviera Vizcaina S.A.			206.86(88)	29.06 13.278				
DI Ead	Bilbao Spain			194.32	29.01 18.01				
Gc Rdr				P 33.6 F 16.8 1 dk r f nil					
RTMvH				NS 98H WB15431t incl. Topside tanks in holds 8644t Comb. btm & STs in Nos. 1, 3, 5 & 6 holds 6093t					
5108714	ERNA	141 95 198		1929	E. J. Smit & Zoon—Hgz	M General Cargo	Oil 4SA 3Cy 240 x 380 NE 37 Humboldt-Deuotmot Fuel 4.0t	Koin-Deutz 7kn	
DCFP	Christoph Bedewien Waringstahn Federal Republic of Germany			31.50	5.99 2.007				
				ROD 6.4 1 dk R	5.64				
5108738	ERNA ELIZABETH	20 857 12 548 35 464		1959	Bethlehem Pacific Coast Sht Corp.—Fo	S Tanker	2 S Turb dr geared to sc shaft 11 190kW (15 000bhp) Bethlehem Sht. Co. Gen 3 x 600kW 220V 60Hz a.c. Fuel 2 149.5t (t.1)	Ocy	16.5kn
WHJK	Albatross Tanker Corp.			201.48	27.51 10.856				
280193	New York, NY United States of America			192.03	27.44 13.80				
DI Ead				1 dk					
Gc Pfd									
Rdr									
RTMvH				RW r f 203					

EXAMPLE OF DATA PROVIDED BY LLOYD'S REGISTER OF SHIPPING [2]

INITIAL DISTRIBUTION

	Copies		Copies
<u>MINISTRIES OF DEFENCE</u>		<u>SCNR FOR SACLANTCEN</u>	
MOD Belgium	2	SCNR Belgium	1
DND Canada	10	SCNR Canada	1
CHOD Denmark	8	SCNR Denmark	1
MOD France	8	SCNR Germany	1
MOD Germany	15	SCNR Greece	1
MOD Greece	11	SCNR Italy	1
MOD Italy	10	SCNR Netherlands	1
MOD Netherlands	12	SCNR Norway	1
CHOD Norway	10	SCNR Portugal	1
MOD Portugal	5	SCNR Turkey	1
MOD Turkey	5	SCNR U.K.	1
MOD U.K.	16	SCNR U.S.	2
SECDEF U.S.	61	SEGEN Rep.	1
		NAMILCOM Rep.	1
<u>NATO AUTHORITIES</u>		<u>NATIONAL LIAISON OFFICERS</u>	
Defence Planning Committee	3	NLO Denmark	1
NAMILCOM	2	NLO Germany	1
SACLANT	10	NLO Italy	1
SACLANTREPEUR	1	NLO U.K.	1
CINCWESTLANT/COMOCEANLANT	1	NLO U.S.	1
COMIBERLANT	1		
CINCEASTLANT	1		
COMSUBACLANT	1		
COMMAIREASTLANT	1		
SACEUR	2		
CINCNORTH	1		
CINCSOUTH	1		
COMNAVSOUTH	1		
COMSTRIKFORSOUTH	1		
COMEDCENT	1		
COMSUBMED	1		
COMMARAIRMED	1		
COMTWOATAF	1		
CINCHAN	1		
		<u>NLR TO SACLANT</u>	
		NLR Belgium	1
		NLR Canada	1
		NLR Germany	1
		NLR Greece	1
		NLR Italy	1
		NLR Norway	1
		NLR Portugal	1
		NLR Turkey	1
		ESRA Doc. Service	1
		Total initial distribution	234
		SACLANTCEN Library	10
		Stock	36
		Total number of copies	280