

ex. 86

10 maart 1980

MARINE INLICHTINGENDIENST

INLICHTINGENRAPPORT

nr. 2/80

FEBRUARI 1980

OPMERKINGEN

1. Personeel van de Koninklijke Marine mag op "need-to-know"-basis kennis nemen van de in het inlichtingensrapport vermelde gegevens. Gezien de verscheidenheid van de artikelen bestaat tegen het lezen van het gehele rapport door officieren geen bezwaar.
2. Indien geadresseerden ten behoeve van de onder hun commando gestelde eenheden en/of opleidingen gebruik wensen te maken van gegevens die in dit rapport zijn vervat, dient met die gegevens de nodige voorzichtigheid te worden betracht.
3. In géén geval mag over de gegevens van dit rapport melding worden gemaakt tegenover niet-leden van de Nederlandse krijgsmacht.
4. In het geval dat in dit rapport vervatte gegevens door een geadresseerde zijn verwerkt in een cursus, waaraan tevens buitenlandse officieren deelnemen, dient terzake kontakt te worden opgenomen met hoofd MARID c.q. SOI-CENNED.
5. De geadresseerden dienen slechts tien opeenvolgend gedateerde uitgaven aan te houden. Bij ontvangst van een elfde dient de oudste uitgave te worden vernietigd onder indiening van een proces-verbaal aan het hoofd MARID.
6. Indien geadresseerde één of meer uitgaven wist aan te houden dient hij dat schriftelijk mede te delen aan het hoofd MARID.

84 - IDB vern 10/12

85 - Ic 4%

86 - HX 4%

87 - HI 4%

88 - marak [REDACTED]

89 - HIS XII 23/02/80

met vecu

go - H MARID 16/4/80 bdm

gi - Ic - d - e - f 17/4/80

van 22/5/80

g2 - Ib 17/4/80 vern 8P

g3 - H III - HU D vern 10

g4 - II - IV - SPA 17/4/80

vern

DISTRIBUTIELIJST

MINDEF/CDS

CHEF STAF (KM) IGK

CMS tevens voor: PLV.CMS, HMILJUZA  
VOORZ. WG BELEIDSVOORBEREIDING  
CHEF KAB. CMS-BDZSC PLANNEN tevens voor: HORG, HTAKTIEK  
HPLANNENSC OPERATIEN tevens voor: HLUVRT en HLOG  
HVERBHTECHNIEK, WAPENTECHNIEK EN VEILIGHEID  
HOPS

DIR. MARSTAFSCHOOL

DIR. PERSONEEL KM/HPLANPERS

DIR. MATERIEEL KM tevens voor: HCOFINMAT  
HWAPCOMSYS

HWO

MARAT

MARAT

MARAT

MARAT

DGB/GKMARNs tevens t.b.v. C 1-AGGP en C W-INF CIE  
CZMNA d.t.v. SOICZMNED d.t.v. HDGB

CZMNED/SOI

CEKD

CMRD

CMM RIJNMOND

CMM TEXEL

CMM IJMOND

CMM SCHELDE

COZDNED

t.b.v. in dienst zijnde onderzeeboten

CMDNED

CFREGRON

HVBS

COPSCCHOOL

CMARKAZ ERPPRINS

HANTAK

CMVKV d.t.v. OI

CMVKV tevens voor CVSQ

t.b.v. de daarvoor in aanmerking komende schepen

CAWCS

CMBFLOT 1

CMBFLOT 3

CVSQ 320

CVSQ 321

CVSQ 2

CVSQ 860

VOKIM

HDGB

COORD. INLICHTINGEN- EN VEILIGHEIDSDIENSTEN  
HLAMID

HLUID

HPMV

HWKC

HINL

ex.nr.

1230281

2  
3 9/58 D verl.

ter visie

4

5 1/10/80 B

6 230280 verl.

ter visie

7 6/5/80 verl.

8 230281

9 5/9/80 verl.

10 19/9/80 verl.

11 en 12 verl. 20/

13 230281

14 9/4/81.

15

16

17

18 t/m 20

21 9/4/81

22 t/a

23

24

25

26

27

28

29

30 t/m 35

31

32

33

34

35

36

37

38 t/a

39 en 42

40 en 41

41 t/a

42 t/a

43 en 46

44

45

46

47

48 t/m 69 66

49

50

51

52

53 t/a

54

55

56

INHOUDSOPGAVE

DISTRIBUTIELIJST	<u>blz.</u>
INHOUDSOPGAVE	i
EVALUATIE DER INLICHTINGEN	ii
	iii

HOOFDSTUK 1 - DIVERSE ONDERWERPEN

(██████)	- SOVIET NAVAL ACTIVITIES IN THE CARIBBEAN AND THE GULF OF MEXICO	1 - 12
(██████)	- SOVIET PACIFIC FLEET SUBMARINE FORCE	13 - 14
(██████)	- WARSAW PACT AMPHIBIOUS CAPABILITIES	15 - 21
(██████)	- SOVIET NAVAL FORCE LEVEL IN THE INDIAN OCEAN	22 - 23
(██████)	- SOVIET SONAR JAMMERS	24 - 28
(██████)	- SOVIET SUBMARINE NOISEMAKERS	.. 29
(██████)	- FIRST COMPLETE TELEMETRY DATA OBTAINED ON SS-N-18 SLBM LAUNCH	30 - 31
(██████)	- OVERWEGINGEN VAN BELANG BIJ DE BEVEILIGING VAN HET AUTOMATISERINGS- PROCES	32 - 37

HOOFDSTUK 2 - SOVJET MARITIEME AKTIVITEITEN

(██████)	- DE ATLANTISCHE OCEAAN	38 - 39
(██████)	- DE MIDDELLANDSE ZEE	39 - 40
(██████)	- DE INDISCHE OCEAAN	40 - 41
(██████)	- DE STILLE OCEAAN	41
(██████)	- LEVERANTIES VAN SOVJET MARITIEM MATERIEEL	42
	BIJLAGE 1	43

HOOFDSTUK 3 - KARAKTERISTIEKEN VAN COMBATTANTEN  
(EN HULPSCHEPEN)

(██████)	- LIMA-KLASSE (SSAG)	44
		45 - 46

EVALUATIE DER INLICHTINGEN

Bij het evalueren (graderen) van de waarde van de ontvangen inlichtingen stelt men de betrouwbaarheid van de bron vast en bepaalt vervolgens de waarschijnlijke juistheid van het bericht zelf.

Betrouwbaarheid bron

- A = geheel betrouwbaar
- B = gewoonlijk betrouwbaar
- C = tamelijk betrouwbaar
- D = niet altijd betrouwbaar
- E = onbetrouwbaar
- F = niet te beoordelen

Waarschijnlijkheid van de informatie

- 1 = bevestigd door andere informatie
- 2 = waarschijnlijk juist
- 3 = mogelijk juist
- 4 = twijfelachtig
- 5 = onwaarschijnlijk
- 6 = niet te beoordelen

HOOFDSTUK 1

DIVERSE ONDERWERPEN

SOVIET NAVAL ACTIVITIES IN THE CARIBBEAN  
AND THE GULF OF MEXICO  
(PART I)

A Decade in Perspective

1. (●) In July 1969, a Soviet naval task force comprised of seven surface vessels and three submarines drawn from all three Soviet western fleets conducted an unprecedented deployment to Cuba, thereby serving notice that one of the missions of the developing Soviet fleet included extended operations in distant waters. In the eleven years that have followed that initial deployment, Soviet naval surface and subsurface assets have returned on 19 occasions, cementing the Soviet presence and influence in the Caribbean.
2. (●) Analysis of the size and composition of forces and the length of stay in the area suggest that the Soviet naval presence in the Caribbean has gone through at least three stages or phases: the first dedicated to establishing that presence; a second characterized by an increased presence; and third, extending into the present, which appears to indicate the Soviets have generally identified the optimum commitment required to accomplish their aims in the Caribbean.
3. (●) Phase I, July 1969 - June 1970, is clearly the initial period with two deployments, each 35 days in length. The Soviet task groups consisted of three combatants and three submarines during the first visit, two combatants and three submarines during the second with auxiliary support for both. The Soviet units operated in the Gulf of Mexico during both visits establishing a precedent which would be followed by all but seven of the succeeding groups. The first deployments of Soviet naval air BEAR D reconnaissance aircraft also occurred during this period. Two pair of aircraft deployed at separate times in April and one pair in May. Their total days deployed were only 17, with

operations probably in conjunction with OKEAN 70, but it was an important step in the overall Soviet strategy for the area. Subsequent BEAR deployments would be lengthier and operations would range from surveillance of U.S. task forces transiting to and from the United States to penetration of the U.S. air defence intercept zone (ADIZ) and open ocean surveillance without a known/obvious "target". Access to an airfield in the Caribbean would also support a second purpose, to extend the Soviet air presence to West Africa.

4. (●) The second phase, from July 1970 through 1974 (visits 3-12) involved twice-yearly deployments which included the participation of major task groups comprised of both surface and subsurface elements. The surface force composition was strong in offensive SSM and defensive SAM. Beginning in visit 10, the threat profile began to emphasize strong ASW, plus AAW. Four of the groups during this period conducted sorties into the Gulf of Mexico. ASW operations with the Cubans were noted during at least three visits with another three occasions of separate Soviet ASW operations being conducted without their "hosts". This phase was also a period of "firsts" - the permanent positioning of a submarine contingency tug in Cuba, the first visit of an SSB (a GOLF II, visit 8) to a foreign port, and the first nuclear submarine visit (ECHO II SSGN, visit 10). The period was characterized by a strong operational tempo with the emphasis on ASW.
5. (●) The third phase, which extends into the present, began in 1975 (visits 13-19). Three visits during this period, visits 14, 16 and 18, were in some respects unique. Visit 14, in May 1975, was made by two Kanin DDGs following a goodwill port visit in Boston. They remained in Cienfuegos the entire period, without conducting any operations while in the Caribbean. Visit 16, in June/July 1977, was made by a group of Baltic Fleet units as they interfleeted to the Pacific. They spent the majority of their time in port with the exception of a transit into the Gulf of Mexico and brief operations with Cuban PTGs as they returned to Havanna after that transit. Group 18, March-May 1978, was apparently diverted from West African operations. Because the Caribbean was possibly not their original destination, this visit is considered to be outside the routination, this visit is considered to be outside the routine Soviet Caribbean deployment pattern, although they were active while in the Caribbean.

## SOVIET COMBATANT PRESENCE IN CARIBBEAN

YR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
69							10	14				
70					6	10			4	28	30	
71							2		3			4
72	6	3	9		25	7				18		
72			5			6					7	
72	20	26			15					16		
72				8							3	9
73								2		17		
73			16						10			
74				24	2				24		11	
74					3	1				12		
74			11									
75	27	5		22	5							
75			13		14							
76								16	20			
76									15			
77					26	23					13	
77						16					17	
78	17		15		6				11		10	
78				18						19		

FIGURE 1

DURATION OF SOVIET COMBATANT  
EXCURSIONS IN THE CARIBBEAN

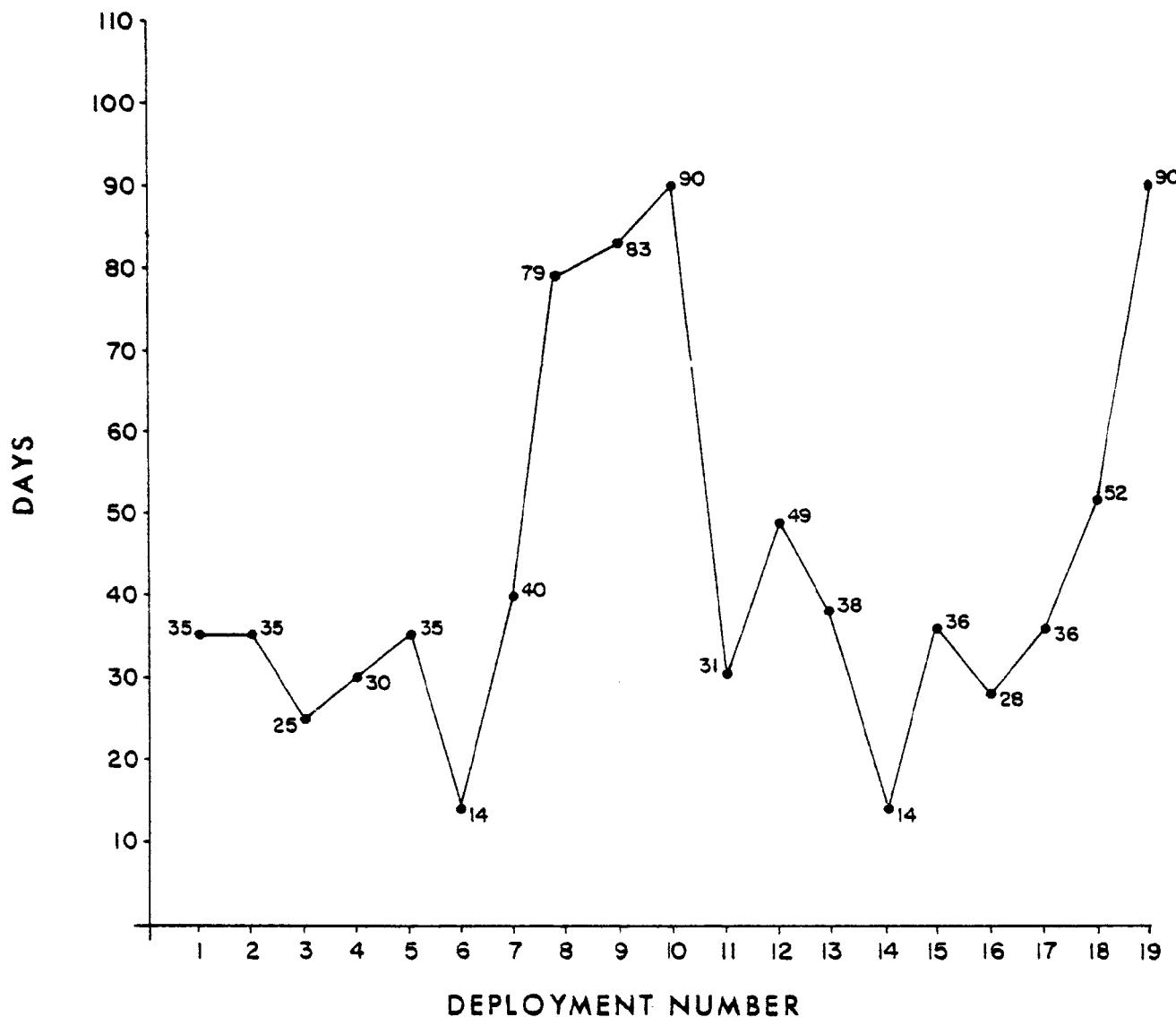


FIGURE 2

If one exclude these three visits from those clearly discernible as Caribbean deployments, a return to the initial one deployment per year which initially marked the Soviet presence in the area is suggested.

6. (●) There was only one Soviet surface task group deployment in the July 1978 to July 1979 time frame, visit 19 from September to December 1978. A similar level of activity is anticipated as the new decade begins.
7. (●) The body of this paper discusses the most recent visit, 19, and the Soviet air and auxiliary activity in the area during the last year. A brief update in Cuban resources is also included. The summary portion addresses what the 1980's may hold for the Soviet presence and influence in the Caribbean.

#### Nineteenth Soviet Caribbean Deployment

8. (●) The Soviet surface units that would eventually make up the 19th Caribbean task group departed the Baltic fleet waters on 21 June 1978. The force consisted of MOD KASHIN DDG 373, "SLAVNIY", KRIVAK I FFG 788, "BODRIY", and KRIVAK I FFG 792, "SILNIY"; this marked the initial Caribbean deployment for SLAVNIY, and a second and third deployment for BODRIY and SILNIY, respectively. With the exception of visit 16 when three new construction units interfleeting to BACFLT operated briefly in the area, visit 19 was the first time since the initial deployment in 1969 that three major Soviet combatants deployed exclusively for operations in the Caribbean. Logistic support for the group was provided throughout the deployment by OLEKMA class AO OLEKMA. Additionally, a FOXTROT SS which probably departed NORFLT in mid July, joined the surface units in the vicinity of the Grand Caicos Islands on 13 September.
9. (●) Following previously observed patterns, the surface contingent (DFOR 61F) conducted a direct transit from the Baltic to the Mediterranean, arriving there on 13 July. DFOR 61F operated in the Mediterranean the remainder of July and most of August, transiting the Gibraltar Strait westerly on 31 August. The task group conducted a 12-day westerly transit of the Atlantic arriving in the vicinity of the Grand Caicos Islands to await the arrival of the FOXTROT SS as previously mentioned. On 14 September, all units, including the surfaced FOXTROT SS, got underway, and subsequently entered Havanna on the 16th to commence a five-day port call. Thus began a 90-day Caribbean deployment. (zie Figure 3).

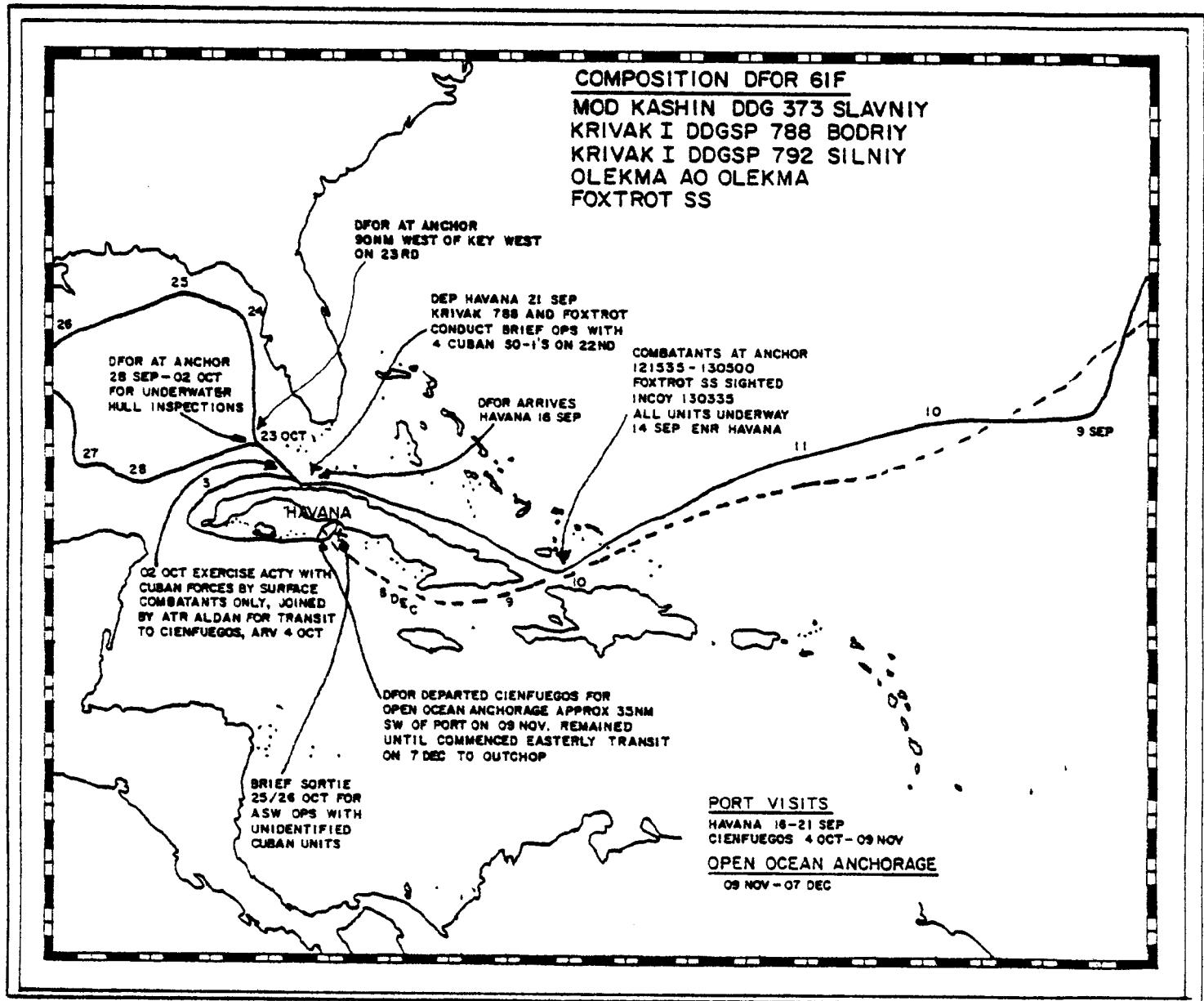


Figure 3

SOVIET GULF OF MEXICO OPERATIONS

Visit no.	Number of Units By Class	Days Transiting Gulf of Mexico	Activities/Remarks
1	KYNDA CGGM KILDIN DDGS  KASHIN DDG	2  3	A. Conducted ASW ops 120 NM NW of Dry Tortugas with 2 FOXTROTS commencing 16 July 1969.  B. Conducted ASW ops west of Havana with a 'N' SSN commencing 28 July 1969
2	KRESTA I CGG KANIN DDG	7	Conducted clockwise transit of Gulf of Mexico departing Havana on 26 June 1970. Closest point of approach was 60 miles south of the southernmost tip of Louisiana.
5	KRESTA I CGGM	5	Conducted counterclockwise transit of Gulf of Mexico departing Havana. Closest point of approach was 60 miles south of the southernmost tip of Louisiana.
9	KRESTA I CGGM KANIN DDG MERTKR  KRESTA I CGGM KANIN DDG	5  4	A. Conducted ASW ops vic 24N086W with a FOXTROT. Not a deep excursion into Gulf of Mexico. (18-25 December 1972).  B. Conducted counterclockwise transit of Gulf of Mexico, Departing Havana (KANIN) on 13 February 1973 (rdvz with KRESTA I transiting from Cienfuegos). CPA of 80 NM west of Tampa, Florida.
10	KRESTA I CGGM KANIN DDG	8	Conducted counterclockwise transit of Gulf of Mexico departing Havana 10 August 1973. CPA was 100 NM south of Galveston.

Figure 4

Visit no.	Number of Units By Class	Days Transiting Gulf of Mexico	Activities/Remarks
12	KRESTA II CG KRESTA II CG	4	Conducted counterclockwise transit of Gulf of Mexico departing Havana 1 October 1974. Deepest penetration was to a point 240 NM west of Tampa.
13	KRIVAK I DDGSP KRIVAK I DDGSP	4	Conducted counterclockwise transit of Gulf of Mexico departing Havana 20 March 1974. Rdvz with MERTKR vic 23N085W. CPA 20 NM Panama City, FL.
16	KRESTA II CG KRIVAK I DDGSP KRIVAK II DDGSP CHILIKIN AOR	6	Conducted counterclockwise transit of Gulf of Mexico departing Havana on 2 July 1977. Closest point of approach 60 NM south of southernmost point of Louisiana. Conducted refueling ops during the transit.
17	KRIVAK I DDGSP KRIVAK I DDGSP UDA AORL FOXTROT SS	5	A. Conducted counterclockwise transit of Gulf of Mexico departing Havana on 23 December 1977. CPA of 40 NM west of St. Petersburg, FL.
		3	B. Conducted ASW ops vic 26N086W with the FOXTROT SS for 13 hours terminating with firing of RBU6000 by both KRIVAKS.
18	MOD KASHIN DDG NATYA MSF ALTAY AORL	4	Conducted counterclockwise transit of the Gulf of Mexico departing Havana 30 March 1978. CPA of 40 NM west of St. Petersburg, Florida.

Figure 4

Visit no.	Number of Units By Class	Days Transiting Gulf of Mexico	Activities/Remarks
19	MOD KASHIN DDG KRIVAK I FFG KRIVAK I FFG OLEKMA AO FOXTROT SS	7	Departed Havana 21 September 1978. Brief ASW ops with Cuban SO-1s by one KRIVAK and FOXTROT on the 22nd. Commenced counterclockwise transit of the Gulf on 23 September, passing within 50 NM of Tampa and 100 NM of Pensacola. Returned to Dry Tortugas on 29 September.

Figure 4

10. (●) Upon departure from Havana on the 21st, the units sortied to a point just off the Cuban coast. KRIVAK 788 and the FOXTROT briefly joined four Cuban S0-1s north of Mariel on the 22nd for ASW operations prior to rejoining the other Soviet units for a transit of the Gulf of Mexico. On 21 September, following a brief period at anchor 90 nm west of Key West, Florida, DFOR 61F commenced a weeklong counterclockwise circuit of the Gulf. During the transit, the Soviet units passed within 50 nm of Tampa, and 100 nm of Pensacola, Florida. This represents the 11th deep penetration of the Gulf in the decade's 19 deployments. (There have also been nine other brief transits/sorties into the Gulf.) After their Gulf transit, DFOR 61F returned to its initial anchorage in the vicinity of Dry Tortugas on 29 September where they remained until 2 October. During this time they carried out underwater hull inspections.
11. (●) Following this standdown period, the Soviet task group proceeded toward the vicinity of Havana for exercise activity with Cuban naval forces. Exercise activity included a sizable Cuban force: thirty-one units, including four OSA Is, four KOMARS, twelve P-4s, four S0-1s, and probably four P-6s. U.S. surveillance assets reported that the exercise participants operated in groups of four to five units and maneuvered toward the coast. Soviet participation in the activity was limited to the surface combatants with the FOXTROT and AO OLEKMA remaining DIW seaward of the exercise area. The three Soviet combatants followed the Cuban units toward the beach area in a line abreast formation. KRIVAK 788 BODRYY was observed conducting shore bombardment as the exercise tempo increased. Several Cuban MIG aircraft were also involved and probably conducted bombing/strafing runs along the exercise beach. The exercise activity terminated during the afternoon hours of 2 October. DFOR 61F reformed and commenced a westerly transit toward the Yucatan Channel en route the southern port of Cienfuegos. Soviet contingency tug Aldan departed Havana and accompanied DFOR 61F to Cienfuegos.
12. (●) Arriving on 4 October, the Soviet units remained in Cienfuegos until 9 November with only one brief sortie, 25/26 October, for an ASW exercise with unidentified Cuban units just south of the harbor entrance. The task group departed Cienfuegos on 9 November for an ocean anchorage approximately 35 nm southwest of that port. They remained at anchor with no activity noted until 7 December when they commenced their easterly transit marking the termination of their Caribbean deployment.

- 13.(●) The outbound transit route took DFOR 61F south of Santiago, Cuba, then northeast through the Windward Passage on 9 December. They entered the Atlantic on 10 December via Ciacos Passage.
- 14.(●) The FOXTROT SS is estimated to have detached from the surface group around the 11th of December and later probably conducted an independent transit to West Africa. The MOD KASHIN, KRIVAKS, and OLEKMA AO conducted a direct transit to the Baltic arriving there Christmas Day, 25 December.
- 15.(●) The 19th Caribbean deployment was the longest since visit 10 in 1973, when KRESTA II ADM ISAKOV, KANIN DDG DERZKIY, an ECHO II SSGN and a FOXTROT SS also spent 90 days in the Caribbean. It was further highlighted by the three joint Soviet-Cuban exercises and the anomalous prolonged use of an ocean anchorage. It was only the second visit since 1974 in which a Soviet submarine participated.

SOVIET ASW OPERATIONS IN CARIBBEAN/GULF OF MEXICO

Deploy- ment nr.	Dates	Location	Participants
1A	5-17 JUL 69	VIC 26N085.5W	KYNDA, KILDIN, KASHIN, AND 2 FOXTROTS
1B	29 JUL 69	VIC 24N089W	KYNDA, KILDIN, KASHIN, AND NOVEMBER
2	1 JUN 70	VIC 24N086W	KRESTA I, KANIN, AND 2 FOXTROTS
4	18 DEC 70	NORTH OF HAVANA	KASHIN, FOXTROT, AND 4 CUBAN SO-1 PCls
5	2 MAR 71	140 NM WEST OF JAMAICA	KRESTA I, NOVEMBER
9A	4 DEC 72	NORTH OF HAVANA	KRESTA I, KANIN, FOXTROT, ECHO II AND UNIDENTIFIED CUBAN UNITS
9B	18-25 DEC 72	VIC 24N086W	KRESTA I, KANIN, FOXTROT
10A	10 AUG 73	WEST OF HAVANA	KRESTA II, KANIN, ECHO II, AND 4 CUBAN SO-1 PCls
10B	9 SEP-5 OCT 73	VIC MARIEL	KRESTA II, KANIN, FOXTROT, AND CUBAN SO-1 PCls, KRONSHTADT PCs
11	6/8/10-11/ 14 MAY 74	NORTH OF HAVANA	2 KRIVAK Is, GOLF II, AND 3 CUBAN SO-1 PCls
17	23 DEC 78	VIC 27N086W	2 KRIVAK Is, FOXTROT, AORL
19A	21 SEP 78	NORTH OF MARIEL	1 KRIVAK I, FOXTROT, AND 4 CUBAN SO-1s
19B	25/26 OCT 78	SOUTH OF CIENFUEGOS	MOD KASHIN, 2 KRIVAKS, FOXTROT AND UNIDENTIFIED CUBAN UNITS

Figure 5

SOVIET PACIFIC FLEET SUBMARINE FORCE

16. (●) The Soviet Pacific Fleet has the next strongest submarine force after the Northern Fleet. The force consists of a total of 108 operational units which is close to one-third of the Soviet Navy's estimated overall operational submarine strength. Like the Northern Fleet, the Pacific Fleet submarine force has two components:
- a. Ballistic Missile Submarines
  - b. General Purpose Submarines
17. (●) The Pacific Fleet ballistic submarine force is estimated to total 33 units - again about one-third of the Navy's strength. This figure includes 9 DELTA I and 11 YANKEE I class nuclear powered units, which are counted under the present SALT agreement, and 11 HOTEL II and GOLF I/II class units armed with SS-N-4/5 missiles with ranges of 550 and 1600 km respectively. In addition to the existing units it was recently reported that 2 DELTA III class ballistic missile submarines were transferred to the Pacific Fleet. DELTA III is equipped with 16 SS-N-18 missiles with a range of 9000 km.
18. (●) A detailed briefing on "The Soviet Submarine Launched Ballistic Missile Force" was given to the Military Committee earlier this year.
19. (●) The Soviet Pacific Fleet general purpose submarine force is estimated to total 75 units, including cruise missile and attack submarines. The cruise missile submarine force consists of 5 CHARLIE I and 14 ECHO II class nuclear and 4 JULIETT class diesel powered units. The first CHARLIE I class nuclear powered submarines equipped with short range submerged-launched missiles were introduced in the Pacific Fleet in 1974. Since then an increasing number of these units together with existing ECHO II class nuclear and JULIETT class diesel submarines armed with surface launched medium range cruise missiles continues to improve its anti-strike fleet capabilities.
20. (●) The attack submarine force of the Pacific Fleet consists of 15 nuclear powered VICTOR, ECHO and NOVEMBER class submarines and a total of 39 long and medium range diesel powered units of various classes.

One YANKEE I class SSBN had its missile bay removed and is currently also listed as a SSN. Although the majority of the attack submarines are diesel powered, the proportion of nuclear-powered units is slowly increasing with the acquisition of new units and the retirement of older diesel powered submarines. The Pacific Fleet has not yet acquired the TANGO class diesel submarine.

21. (●) Beside the regular combat units the Pacific Fleet has an Auxiliary Submarine, designated the INDIA class which can carry two submersibles in the superstructure wells abaft the sail. The INDIA class is possibly intended for deep water submarine rescue/salvage duties but it could also be used for other operations such as monitoring Soviet sea-bed sonar devices.
22. (●) The Headquarters of the Soviet Pacific Fleet submarine force is in Vladivostok and submarines operate from two widely separate areas, the Kamchatka Peninsula and Vladivostok area. On the Bering Sea coast off the Kamchatka Peninsula, Bechevinstaja is the principal operating base of the nuclear submarines. It is worth noting that the base is completely isolated and has no rail or road connections but it has direct access to the Pacific Ocean. In the Vladivostok area the Zaliv Strellok complex is the main submarine base of the Soviet Pacific Fleet.
23. (●) In conclusion the Soviet Pacific Fleet has a strong submarine component and the inventory includes approximately one-third of all the operational Soviet submarines. Although they are generally not the most modern units there is a continuous trend of improvement in the quality and capabilities of the force as the proportion of larger and more sophisticated submarines increases.

WARSAW PACT AMPHIBIOUS CAPABILITIES

24. (●) The Soviet Navy's Amphibious Forces, as they are constituted today, were re-created in the early 1960's after having been disbanded for a period of approximately 10 years. In four other Warsaw Pact countries: Poland, the German Democratic Republic, Bulgaria and Romania, similar forces are in existence.
25. (●) The principal role of the Soviet amphibious force is short range operations contributing to the navy's wartime mission of support to the ground theatre of operations. This support includes, but is not limited to:
- a. Assault against commanding islands and land areas in order to ensure control of sea frontiers. Examples are the islands in the Baltic exits and the land areas around the Turkish Straits.
  - b. Coastal assaults ahead of and in conjunction with land offensives behind enemy fronts. Areas where such operations are thought possible could be northern Norway and the Baltic and Black Sea coastal regions.
26. (●) Other possible roles are coastal defence and independent small scale landings in areas of light resistance. The Naval Infantry also provides amphibious elements within naval groups that may be deployed overseas, where the existence of such elements would augment the local naval presence in support of foreign policy. Thus, there are in the main two roles for the Naval Infantry forces, primarily, short range assaults in operations in support of a naval presence overseas.
27. (●) Soviet doctrine provides for short range amphibious operations to be carried out in coordination with airborne or landbased heliborne operations to the rear of beach areas. They are intended as the first assault in order to establish a beachhead for the probable later arrival of ground force follow-up units embarked in merchant ships. In the Baltic, combined operations of Soviet, Polish and East German amphibious forces are likely, and on a smaller scale they are probable in the Black Sea in cooperation with the Bulgarians and perhaps with the Romanians.

28. (●) Soviet amphibious operations would be conducted in three phases:

- a. Embarkation. Whenever practicable embarkation is accomplished under cover of darkness and dispersed in several ports. The ships are loaded in such a way that the vehicles and equipment can disembark rapidly at the landing areas. For this reason the loading factor will be only approximately 70 percent of the available deck space. This will enable all vehicles to leave the ship without any maneuvering necessary on deck.
- b. Transit. Ideally, Soviet amphibious assault forces conduct the transit during a single night with the attacking force in position by daybreak, although this may not always be possible due to distance. The transiting force includes Amphibious Assault ships, Merchant ships, Minesweepers and escorts. If the amphibious assault is carried out in conventional war a major surface force will also be present in order to provide naval gunfire support for shore bombardment together with air-to-ground support. The Naval Infantry is organized for and trained in nuclear warfare and exercises suggest that concentrated nuclear strikes are planned against defending forces prior to the initial assault, but the Soviets appear to be still continuing to develop their conventional shore bombardment facilities. As the Soviets increase their amphibious capabilities for limited long range engagements abroad, the requirement for shore bombardment by naval gunfire will also increase.
- c. Assault. The assault is preceded by various beach preparation activities including shore bombardment by naval gunfire and air attack. The landing force is formed into waves, the first to carry out additional preparations of the beach and the following waves to transport the combat forces. A Battalion Landing Team is the basic battle formation. It will land at three landing points covering a distance of one kilometer. If the Naval Infantry Regiment is to land as a whole, the distances between the battalion landing areas will be two to three kilometers.

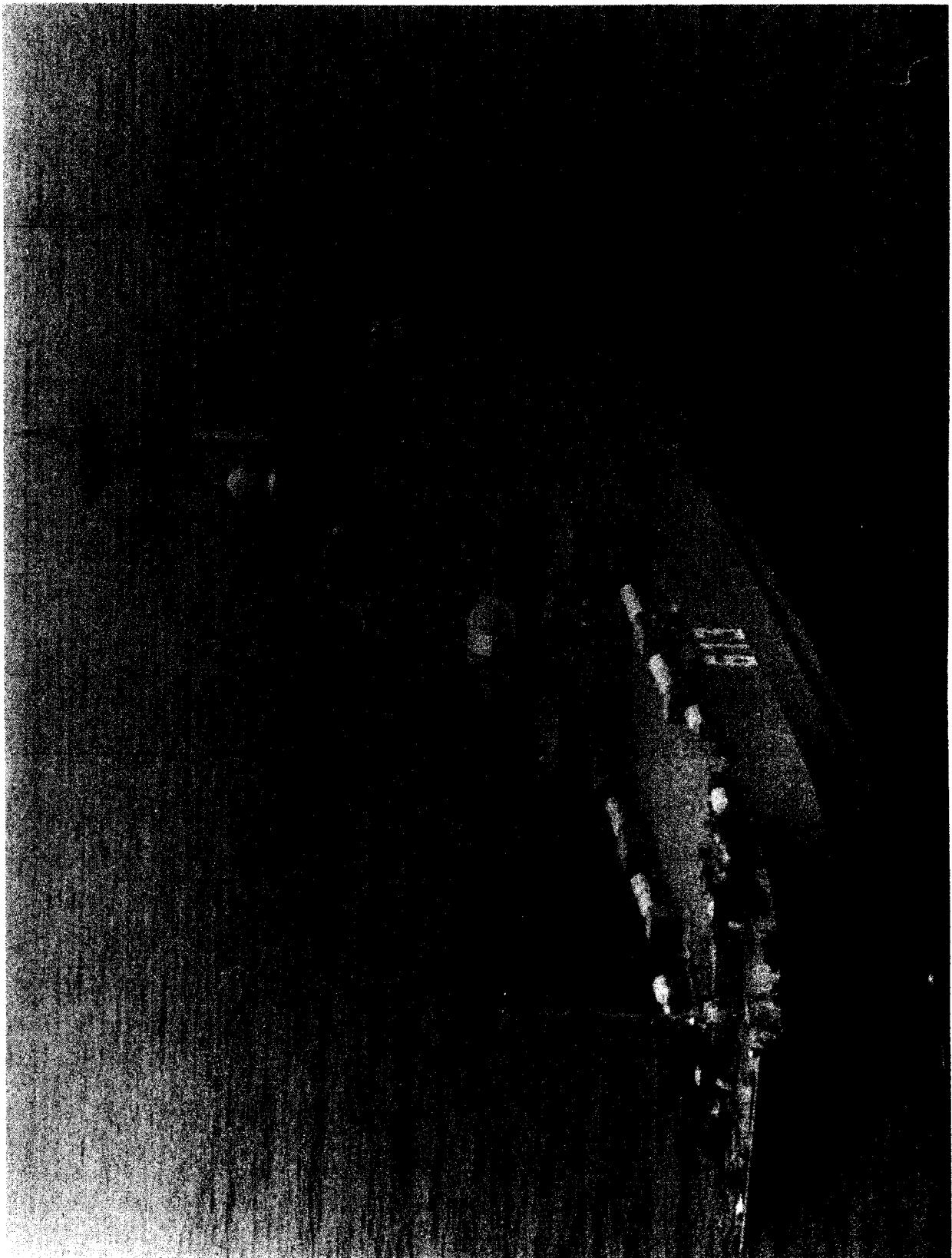
29. (●) The amphibious trained forces in the Warsaw Pact consist of the following:

- a. One Soviet Naval Infantry Regiment is located in the Kola area. In the Baltic there is one Soviet

Naval Infantry Regiment and in addition, one Polish Sea Landing Division and one East German Motorized Rifle Regiment trained for amphibious operations. There is a third Soviet Naval Infantry Regiment in the Black Sea, which could be augmented by one Bulgarian regiment trained in amphibious techniques and one Romanian battalion which is probably designated Naval Infantry. In the Caspian Sea there is a Soviet Motorized Rifle Regiment, which probably also has received amphibious training and which could be deployed in the Black Sea area. Finally, however of less interest to NATO, there are two Soviet Naval Infantry Regiments and one other Cadre Regiment, in the Pacific which are believed to form a Naval Infantry Division. All in all there are approximately 12,000 Naval Infantry troops in the Soviet Union and approximately 7,000 other ground troops in the Warsaw Pact countries trained for amphibious warfare.

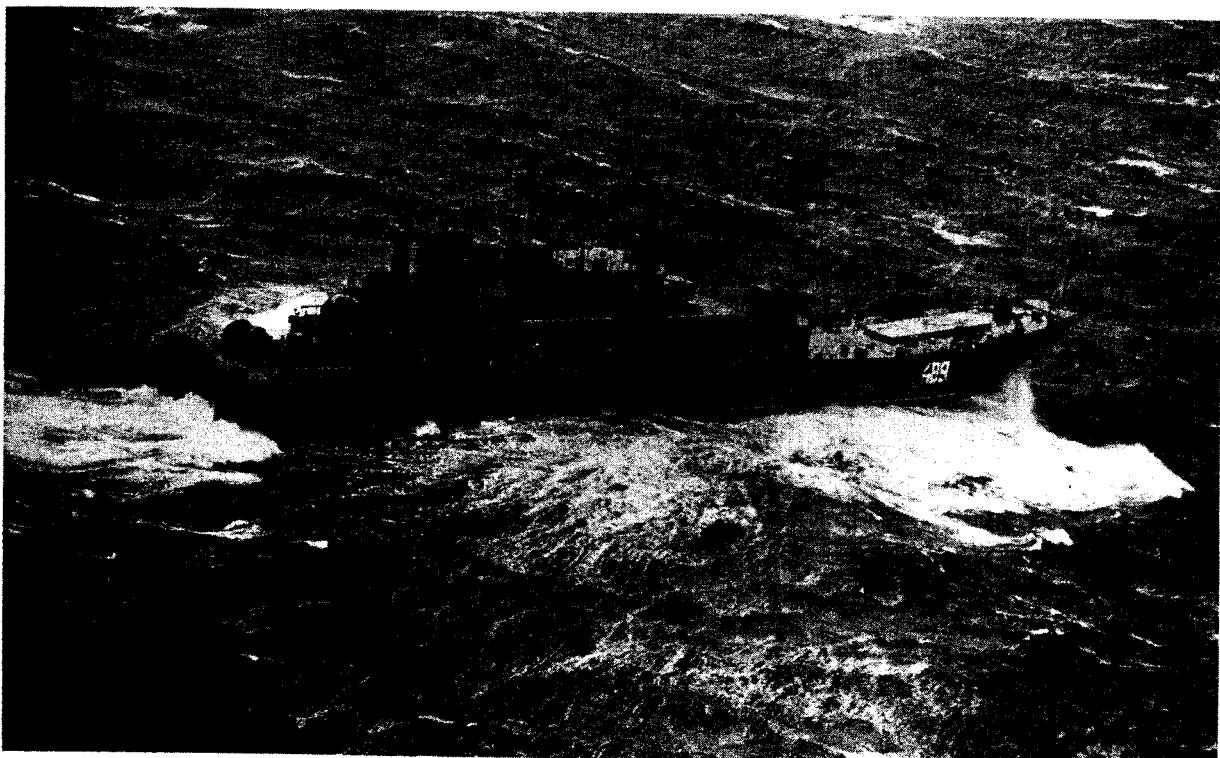


ROGOV



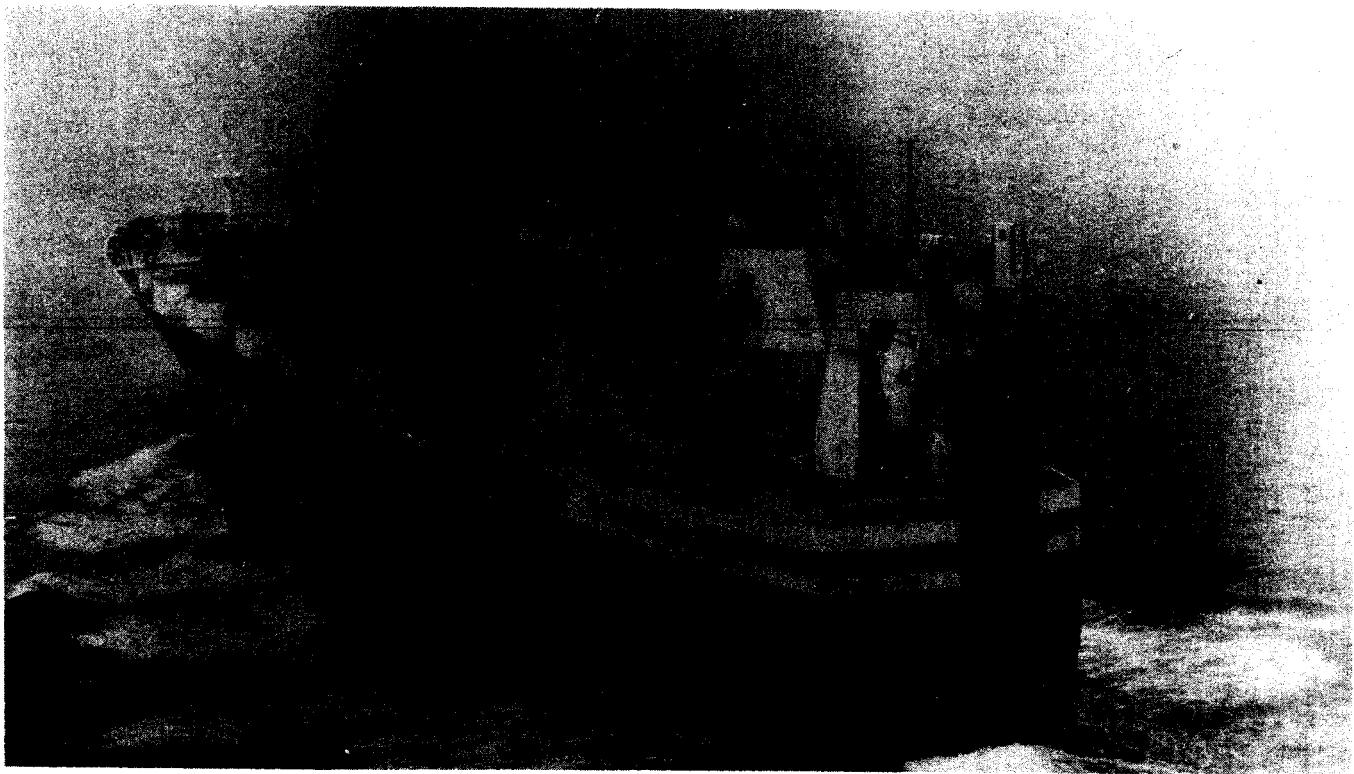
FROSCH

30. (●) It is expected that the USSR, Poland, the GDR, Bulgaria and Romania will continue to have amphibious forces and they will increase their capability, mainly in quality rather than quantity. A modernization program is in progress with the delivery of new landing ships of the IVAN ROGOV, ROPUCHA and FROSCH classes. In addition helicopters and air cushion vehicles have already been used on exercises and they are expected to be a permanent feature of amphibious operations from now on. For instance, the IVAN ROGOV Class LPD has been observed operating air cushion vehicles as well as helicopters.



ROPUCHA

31. (●) The ROPUCHA Class and the IVAN ROGOV Class are believed to be designed for long range operations. Until recently two ROPUCHAS and an IVAN ROGOV class were part of the Soviet Indian Ocean Squadron. The Soviet Navy will, at least in the short term, have a very limited capability to employ Naval Infantry in independent operations at distant areas including for instance the islands in the Atlantic.



Ro/Ro

32. (●) The lift capability is also being augmented by the introduction of Roll On/Roll Off merchant ships and barge carrier merchant vessels. These types of ships are very well equipped for use in the follow-on waves of an amphibious assault and by 1981, the Soviet worldwide merchant fleet will be able to lift six Motorized Rifle Divisions by Roll On/Roll Off and four by the barge carriers. Increased ground force participation in amphibious assault exercises may be possible as these more capable ships enter the merchant fleet. This will not only be true for the Soviets but East Germany and Poland are also expected to obtain Roll On/Roll Off merchant ships, which may improve their lift capability.
33. (●) The Warsaw Pact amphibious capability has been developed primarily for use in short haul assault operations on the periphery of, and area contiguous to, the USSR, where local air superiority can be obtained. The assault forces are, however, not large enough to carry out sustained operations and they will have to be followed

closely by other ground forces carried in merchant ships in order to maintain the momentum of the attack. At present the Soviet Navy has only a very limited capability to employ naval infantry in independent operations at distant areas, in peace and times of tension, and virtually none in a war with NATO. Although Soviet naval forces overseas almost always include a small amphibious element, the Soviet Union does not possess the capability for an amphibious intervention role to any significant degree. In areas where western interests are not strictly involved, even such a limited presence could however, be instrumental in meeting the needs of Soviet political objectives. With the introduction of the IVAN ROGOV and the KIEV class ship to provide the necessary air support, it is estimated that in the early 1980's the Soviets may be able to deploy an entire Naval Infantry Regiment to distant areas, and by the end of the decade they could assemble enough force to have a good chance of success especially in a third world context.

SOVIET NAVAL FORCE LEVEL IN THE INDIAN OCEAN  
(31 October 1979)

34. (●) The Soviet naval presence in the Indian Ocean has grown over the past ten years from a small flag showing force to a credible and continuously deployed squadron, with a standing force level averaging 18-19 combatants and auxiliaries. The role of the force is to protect and promote the interests of the USSR in the Indian Ocean area. As an instrument of Soviet foreign policy, SOVINDRON seeks to enhance Soviet prestige and influence and, in general, contribute to the USSR's image as a superpower. Militarily, it conducts surveillance of, and gathers intelligence on, other naval forces in the area which, during periods of increased tension, it may be required to counter. Additionally, it provides a capability to establish control in a localized area, intervene in a given local situation, and a means of protecting Soviet interest in the area. Routine operations by combatants are generally limited to the Gulf of Aden and southern Red Sea areas, with aperiodic movements to the Persian Gulf, northern Arabian Sea and portcalls at various Indian Ocean countries (e.g. Mozambique, Seychelles). The smaller combatants and minesweepers routinely conduct patrols in Bab-El-Mandeb Strait. Currently, Soviet amphibious ships appear to function in a logistics transport role. Locating data suggest these ships are regularly engaged in logistics shuttle runs between Aden, PDRY, where Soviet merchant ships can offload with security, and the Ethiopian ports of Massawa and Assab. Soviet submarines are thought to prefer an area of operations in the more open and less congested areas of the eastern Gulf of Aden and the western Arabian Sea. Also, they occasionally venture into the southern Red Sea. SOVINDRON ships conduct only minimal training, and spend a large portion of their deployments at the various Soviet established anchorages.
35. (●) Since 1974, SOVINDRON force levels have stabilized for submarines at about 460 ship-days per year; surface combatants, amphibious, and mine warfare ships have been at approximately 2100 ship-days per year. In 1978, however, amphibious levels more than doubled from the previous 490 ship-day average. This increase is attributable to the Soviet withdrawal from Somalia and subsequent support to Ethiopia in its war with Somalia. Associated with these two events, and the concomitant increase in ops tempo they entailed, was the significant increase in naval and naval associated auxiliaries

deployed to the Indian Ocean, up approximately one third from previous years. The SOVINDRON is primarily comprised of Soviet Pacific Ocean fleet assets. It is expected that the Soviets will continue to rely on the Pacific Ocean Fleet to provide their routine Indian Ocean presence, while retaining the capability and flexibility of utilizing the Suez Canal for reinforcement from the Mediterranean.

36. (●) Soviet Indian Ocean squadron ship-days:

	<u>1978</u>	<u>1979</u> (to 30 Sep)
submarine	467	365
surface combatants	1462	1478
amphibious/mine warfare	1555	848
auxiliary/support	4959	3487

Increase in combatant level for 1979 is primarily due to interfleet movements.

37. (●) Peaks of Soviet naval deployments to the Indian Ocean can be correlated to regional crises and the recent spate of interfleet transfers. Examples of contemporary regional crises, which have elicited a Soviet response, include the Soviet ouster from Somalia, the Somali-Ethiopia war, the Iranian crisis, and the PDRY-YAR clash. During the summer and fall months of 1979, the Soviets transferred to the Pacific seven combatants and two auxiliaries, including CVHG MINSK.

38. (●) Factors which could influence a change in Soviet Indian Ocean deployment levels in the future include:

- a. Access to support facilities at Dhalac Island and Aden reducing the requirement for afloat logistic resources.
- b. SOVINDRON can be readily reinforced from assets in the Black and Mediterranean Seas via the Suez Canal.
- c. The increasingly frequent Soviet presence in the South China Sea, coupled with access to SRV facilities, afford the capability to rapidly augment the Indian Ocean squadron.

SOVIET SONAR JAMMERS (Eval.: B-2)

Introduction

- 39.(●) The following article is descriptive of a Soviet sonar jammer technical lay-out. It reflects Soviet pre-occupation with this subject although it is not necessarily representative for present day state-of-the-art.
- In the years following the end of the Second World War rapid technical advances have occurred in the field of submarine detection. Modern specialized submarine detection devices include ship and airborne sonars, shore sonar stations, radio sonic buoys, electro-magnetic detectors, echo-ranging devices and underwater television cameras, among others. The consequence of this increase in efficiency in underwater detection is intensive research and a development program designed to reduce the effectiveness of these submarine detection devices.
- 40.(●) So far the familiar sonar jamming devices, designed to simulate submarines, generally are able to satisfy this requirement. Because these systems are very complex, associated research and development requires a large expenditure of funds. The chances of submarine detection can also be reduced through the application of absorbent coating to the hull of the submarine. Such absorbent coating, however, offers additional resistance when the submarine is under way. The relative effectiveness of absorbent coating is subject to water temperature and pressure change; moreover, the coating itself tends to wear off early. New jamming devices are not subject to such disadvantages.
- 41.(●) Figure 6 (blz. 27 en 28) shows a sonar jamming device which resembles a torpedo and is driven by a turbine engine (2). Power generated by the turbine is transferred to the propeller (5) and distribution shaft (6) by means of reduction gears and drive shaft (4). Nitrogen fuel stored in fuel tanks (3) expands through conduit pipes and turns the turbine blades. The jamming device carries explosive charges (9) which are placed radially in 16 rows at the periphery of the hull; each row contains 18 charges. Each charge resembles in shape a truncated top (22) and contains 0.45 kg of explosive material known as cyclotol. Driven by the turbine engine the distribution shaft (6), in a programmed sequence, frees the explosive charges from their seats in the hull of the device. When the jamming device submerges to a depth of 90 metres, a pressure valve (10) opens, allowing sea water to enter through a duct (8); by this means water enters the hull and exercises pressure against the lower membrane of the explosive charges (9). In this manner hydrostatic pressure is

equalized on both sides of the charges. The release mechanism functions as follows: a compressed spring (14), placed at the lower part of the explosive charge housing (9), is released by means of a conical cam (16) which is mounted on the distribution shaft (6). In the initial position the release mechanism is kept in place by a ball (18), which is seated in a semi-circular ball pin grove (15) and held in turn by a blocking rod (17). Release of the spring (14) occurs when the distribution shaft turns, placing the cam (16) in a downward position, thereby freeing the blocking rod (17). Thus freed, the release springs (14) reassert themselves in succession, and in so doing eject the charges clear of the jamming device hull at programmed intervals, e.g. every 2, 3, 4, ..... up to 10 seconds.

42. (■) As each successive explosive charge is freed from the hull of the jamming device it sinks. As soon as the charge attains the required depth, a protective membrane (19) fashioned from profiled gold plate is bent inward under the effect of the hydrostatic pressure. The bending of the membrane compresses the air which is in the cone space (20). When the compressed air reaches the ignition temperature of the primer material (21), (for CH<sub>6</sub> - 400°C), the latter ignites and causes the bursting charge to detonate. The time interval between successive ejections of explosive charges from the hull of the device can be varied (between 2 to 10 seconds) by means of a mechanical timer. The periodically exploding charges act as sources of single disturbances which are propagated as underwater acoustic wave signals. The relatively high level of acoustic intensity thus produced degrades useful signals originating from and received by sonar stations both in echo-ranging and noise level. The regulator (11) controls the action of the pressure valve (12), which is located between the tubing bringing sea water to the ballast tank (13). When the sonar jamming device submerges to a depth of 90 metres, the regulator closes the pressure valve. During the time the explosive charges are being ejected, a pressure sensor periodically opens and closes the pressure valve, thus allowing the sea water to flow into the ballast tank. In this way, weight loss is compensated for and the device is prevented from surfacing inadvertently. The sonar jamming devices can be launched from both submarines and surface vessels. They have a speed of approximately 5.6 km per hour (3 nautical miles per hour) while their range is relative to the volume of compressed nitrogen (carried in the fuel tank).

43. (●) Servicing of the sonar jamming device during the preparatory and launching stage is safe, because the charges explode only when the compressed air temperature caused by water pressure reaches a sufficiently high temperature level to ignite the primer. On the other hand, explosive charges can only be ejected from the hull of the sonar jamming device when it is submerged to a depth of 90 metres, when the pressure valve opens allowing water to enter the duct.
44. (●) In future, the reliability of the explosive charge release mechanism could be improved by replacing the distribution shaft by a clock-work mechanism, which will ensure a more accurate control of the interval between successive ejections of the charges. The sonar jamming device is wire guided, which is conducive to the development of tactics most suited to the given task.

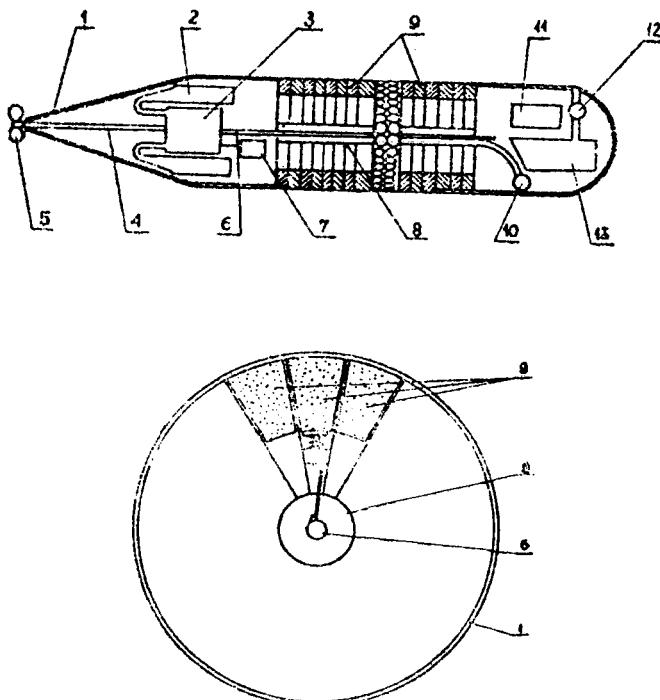


Figure 6. Cross section of a sonar jamming device:

1 - torpedo hull; 2 - turbine; 3 - fuel tanks with compressed nitrogen; 4 - propeller (drive) shaft; 5 - propeller; 6 - distribution shaft; 7 - timer; 8 - duct; 9 - explosive charges; 10 - pressure valve; 11 - regulator; 12 - pressure valve; 13 - ballast tank.

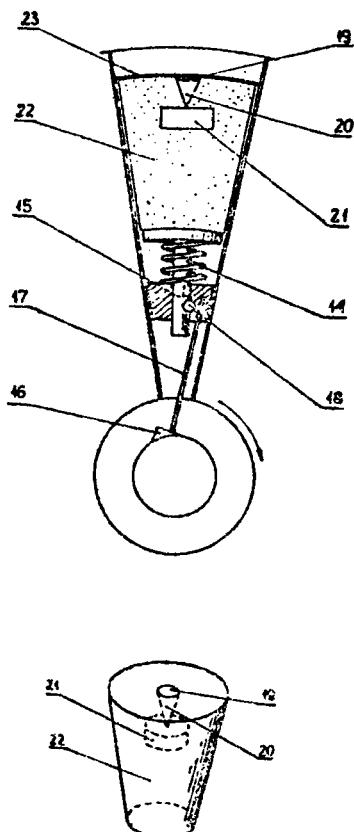


Figure 6. (continued)

A general view of the explosive charge release mechanism:

14 - spring; 15 - pin; 16 - blocking rod; 18 - ball;  
19 - protective membrane; 20 - cone space; 21 - primer material;  
22 - truncated top.

FIRST COMPLETE TELEMETRY DATA OBTAINED  
ON SS-N-18 SLBM LAUNCH

47. (●) On 16 March 1979 a Soviet SS-N-18 SLBM was flight tested at-sea with a real time and a delayed telemetry transmission. Real time data were transmitted on a 20 MHz telemetry link; recorded data, which were delayed by 34.3 S, were transmitted on a 219 MHz link. The delayed data started approximately 0.56 S before missile first motion. An analysis of the delayed telemetry data and use of gimbal angles and acceleration histories provided the following launch phase sequence of events.

<u>Event</u>	<u>Time from Launch(S)</u>	<u>Velocity (M/S)</u>	<u>Distance traveled (M)</u>
a. Missile first motion	0.00	0.00	0.00
b. Main engine IGN (reduced thrust)	0.72	3.13	1.20
c. Initial pitch motion	1.56	3.62	3.35
d. Main engine (full thrust)	2.04	11.53	6.96
e. Initial roll motion	2.40	20.30	12.66
f. Missile tube exit	2.50	22.30	14.40
g. Nose broach	3.08	26.00	28.92
h. Tail broach	3.58	30.71	43.26

48. (●) Preliminary analysis indicates that: (1) the launch sequence of the SS-N-18 and the acceleration time history during launch differ from that of the SS-NX-17; (2) the base of the missile was at a depth of approximately 44 M at time of launch; (3) the peak sensed acceleration in the launch tube is 3.9G's as compared to 8.2G's for the SS-NX-17; (4) the main engine is ignited at a reduced thrust and then goes to full thrust while the missile is still partly in the launch tube (the SS-NX-17 main engine is ignited after surface broach); (5) the gimbal angle history suggests a rail and shoe vehicle attitude constraining mechanism in the launch tube; (6) from estimated values of latitude and launch azimuth, the submarine speed was computed to be between 3.0 and 4.5 kn.

49. (●) Comment: This is the first at sea-test flight of the SS-N-18 missile system from which delayed launch data were collected and provided the most complete

set of telemetry data on the launch sequence of an SS-N-18 SLBM. The results of this analysis confirm previous estimates that the SS-N-18 is launched from a keel depth of about 45 m and a launch submarine speed of 3 to 5 kn.

OVERWEGINGEN VAN BELANG BIJ DE BEVEILIGING VAN  
HET AUTOMATISERINGSPROCES

Inleiding

50. (●) De Koninklijke marine beschikt over (geautomatiseerde) gegevensverzamelingen, waaruit (geklassificeerde) informatie wordt verstrekt.
51. (●) Voor wat betreft de behandeling van geklassificeerde gegevens ten aanzien van handmatige administratiesystemen bestaan duidelijke beveiligingsvoorschriften en -richtlijnen.
52. (●) Voor de geautomatiseerde verwerkingsprocedures worden navolgende beveiligingsmaatregelen overwogen ter aanvulling c.q. verduidelijking van eerder bedoelde beveiligingsvoorschriften, waarbij uitsluitend het aspekt datatransmissie nader wordt belicht.

Crypto-voorzieningen

53. (●) Voor zover bij het raadplegen van een databank gebruik wordt gemaakt van onbeveiligde (veelal PTT) lijnen, worden deze verbindingen voorzien van een cryptografische beveiling.
54. (●) Deze beveiling omvat meerdere aspekten, t.w.:
- transmissie-beveiling
  - crypto-beveiling
  - elektromagnetische en akoestische beveiling
  - fysieke beveiling.

ad. a

Deze beveiling richt zich op het voorkomen van het onopgemerkt onderscheppen van gegevens, welke zich op de zendweg bevinden. Tevens wordt beoogd, onbevoegde manipulatie van gegevens via het datatransmissiekanaal tegen te gaan.

ad. b

Dit beveiligingsaspekt richt zich op de organisatorische, administratieve, personele en materiële beveiligingsmaatregelen, welke noodzakelijk zijn onbevoegde kennisname van in gebruik zijnde cryptomiddelen te voorkomen.

ad. c

Deze maatregelen omvatten voornamelijk aktiviteiten ter voorkoming van het onopgemerkt onderscheppen van in bewerking zijnde gegevens, waardoor de crypto- en andere beveiligingsmaatregelen worden doorbroken.

ad. d

Deze beveiligingsmaatregelen zijn gericht op het beheer van de crypto-middelen. De crypto-middelen worden onderscheiden in:

- sleutelmiddelen, alsmede documenten en materialen, welke sleutelgegevens bevatten
- crypto-apparaten
- crypto-publikaties, zoals bedienings- en installatie-voorschriften, etc.

Voorgestelde maatregelen

55.(●) De navolgende maatregelen hebben uitsluitend betrekking op de onder punt 54.(DG) onder b. en d. bedoelde beveiligingsaspekten:

a. Crypto-beveiliging

- (1) Installatie, onderhoud en reparatie van de crypto-apparatuur dient in eigen beheer te geschieden, met andere woorden door bevoegd personeel behorend tot de defensie-organisatie.
- (2) Per lokatie wordt een crypto-beheerder aangesteld, belast met de ontvangst, registratie en uitgifte van het crypto-sleutelmateriaal. Tevens heeft hij het beheer over de op zijn lokatie aanwezige crypto-apparatuur en crypto-publikaties.

b. Fysieke beveiliging

(1) Personnel

- (a) Naast de in punt 55.(DG) a.(2) vermelde funktionaris worden per lokatie minimaal twee crypto-operators aangewezen, belast met de bediening van deze apparatuur ten behoeve van het in stand houden van de lijnverbinding.
- (b) Het voor deze functies aangewezen personeel dient in het bezit te zijn van een cryptomachtiging, welke wordt uitgegeven onder verantwoording van de CMVD. Afgifte geschiedt na

het volgen van een cursus/training. In voor-komende gevallen kan een aanvullend veiligheidsonderzoek noodzakelijk zijn.

(2) Opberging

- (a) De crypto-sleutelmiddelen dienen opgeborgen te worden in een brandkast of kluis, voorzien van een instelbaar cijfer- of lettercombinatie-slot met tenminste drie sluitschijven.
- (b) Indien de datatransmissieverbinding voor langere periodes wordt afgeschakeld (bijvoorbeeld ten behoeve van onderhoud/reparatie of na de vaste werktijden) dient het cryptosleutelmateriaal, dat zich in het cryptoapparaat bevindt, in de boven bedoelde brandkast of kluis te worden opgeborgen.

(3) Materiële beveiliging

- (a) De ruimte, waarin de crypto-apparatuur staat opgesteld, dient te worden aangemerkt als crypto-ruimte. Deze ruimte mag uitsluitend betreden worden door personeel, voorzien van de in punt 55.(DG) b.(1)(b) bedoelde cryptomachtiging. Binnen deze ruimte is een lijst aanwezig, waarop de namen van deze bevoegde personen staan vermeld.
  - (b) Personen, niet geregistreerd op bovengenoemde toelatingslijst, doch die de cryptoruimte moeten betreden, worden geregistreerd in een hiertoe bestemd register. In dit register worden de navolgende gegevens vastgelegd:
    - naam en voorletters
    - geboortedatum
    - rang/kwaliteit o.q. functie
    - reden van het bezoek.
- Alvorens echter toegang te verlenen, dient toestemming verkregen te worden van de met de algehele beveiliging belaste veiligheidsfunktionaris van het desbetreffende objekt.
- (NB: de toegang dient te worden beperkt tot die personen, welke uit hoofde van hun functie of in verband met het uitvoeren van werkzaamheden moeten worden toegelaten.)

- (c) In overleg met de betrokken beveiligingsinstanties dienen doeltreffende bewakingsmaatregelen getroffen te worden. Het gebouw, waarin de cryptoruimte zich bevindt, dient 24 uur per dag bewaakt te zijn, hetzij door permanente bewaking aanwezig, hetzij door een

onregelmatige controleronde (met tussenpozen van maximaal 2 uur). Indien een en ander niet te realiseren valt, moet de cryptoruimte worden voorzien van een deugdelijke brandmeld- en inbraak-alarminstallatie, waarbij de reactietijd van het bewakend personeel optimaal dient te zijn.

- (d) Er dient in overleg met de betrokken beveiligingsinstanties een prioriteitenlijst opgesteld te worden, waarin te volgen akties worden vastgelegd ter voorkoming van compromitatie van crypto-middelen bij calamiteiten (brand, inbraak, waterschade, etc.).
- (e) Er dient een sleutelregeling te worden opgesteld ten aanzien van de toegangsdeur(en) tot de crypto-middelen, alsmede ten aanzien van de toegang tot de opbergmiddelen. Van de uitgifte hiervan wordt nauwgezet registratie gehouden, waarbij navolgende gegevens worden vastgelegd:
- datum afgifte (eventueel tijd)
  - aan wie
  - paraaf voor ontvangst

Na afloop van de werkzaamheden worden alle sleutels bij de, met de afgifte van deze sleutels belaste ambtenaar ingeleverd.

(NB: ten aanzien van de reservesleutels dient een overeenkomstige regeling getroffen te worden.)

- (f) Er zullen maatregelen/richtlijnen opgesteld moeten worden ten aanzien van vernietiging en noodvernietiging van crypto-middelen. Een en ander geschiedt in overleg met de chef van de marine-verbindingsdienst en de desbetreffende beveiligingsfunktionaris.

#### Aanvullende maatregelen rond het gebruik van crypto-middelen

56. (●) Ten aanzien van een verantwoord beveiligd terminalgebruik worden navolgende aanvullende maatregelen voorgesteld:

- a. De afscherming van geklassificeerde gegevens, welke zich op het beeldscherm of op een hard-copy eenheid presenteren, is een verantwoordelijkheid van iedere individuele bevoegde gebruiker.
- b. Voornoemd personeel maakt gebruik van zogenaamde passwords, waarmede toegang tot de databank kan

worden verkregen. Voor wat betreft het gebruik van deze passwords gelden navolgende richtlijnen:

- periodieke wisseling van passwords, met name na overplaatsing van personeel.
  - tijdens het intoetsen van het password dient onbevoegde waarneming hiervan te worden voorkomen.
  - onbevoegd gebruik van passwords dient door het computersysteem te worden geregistreerd (bijv. aan de hand van gebruikerscodes).
- c. Alle geklassificeerde hardcopy terminaluitvoer wordt geregistreerd, alsmede eventuele copieën hiervan. Met behulp van deze registratie moet het mogelijk zijn om op elk gewenst moment te achterhalen wié welke informatie in zijn/haar bezit heeft (conform geldende beveiligingsnormen).
  - d. Alle op papier vastgelegde terminaluitvoer moeten - na gebruik - aan de met de vernietiging belaste instantie worden aangeboden. Deze instantie geeft een bewijs van ontvangst af, welke in de gebruikersadministratie wordt aangehouden.
  - e. Indien een specifieke terminal door meerdere systeemgebruikers wordt benut, dient iedere individuele gebruiker na afloop van zijn/haar werkzaamheden zich ervan te vergewissen, dat de communicatie met de databank daadwerkelijk is afgesloten.
  - f. Zodra een inbreuk op de gestelde beveiligingsrichtlijnen worden gekonstateerd, dient de met de algehele beveiliging belaste veiligheidsambtenaar te worden ingelicht. Mogelijk dienen hiertoe nadere richtlijnen te worden vastgesteld.

#### Slotopmerking

57. (●) a. Nadrukkelijk zij gesteld, dat deze voorgestelde maatregelen zijn bedoeld om de systeemgebruiker de mogelijkheid te verschaffen, om vooruitlopend op een definitieve installatie van de cryptomiddelen, eventueel in overleg met de betrokken beveiligingsinstanties, duidelijke beveiligingsrichtlijnen op te stellen.
- b. Met name ten aanzien van de verbindingenbeveiling dienen een aantal maatregelen getroffen te worden, welke goedkeuring verlangen van de chef van de

marine-verbindingsdienst, alvorens een beveiligde datatransmissieverbinding voor gebruik kan worden vrij gegeven.

- c. Spoedige inzage van dit pakket aan te nemen beveiligingsmaatregelen, die nu ter tafel liggen, lijkt geboden voor die instanties die in de diverse stadia van opbouw in de automatisering verkeren en waarbij deze specifieke beveiligingsproblematiek naar voren gaat komen.

## HOOFDSTUK 2

### SOVJET MARITIEME AKTIVITEITEN

#### DE ATLANTISCHE OCEAAN

##### Algemeen

1. (●) In de maand februari waren de oefenaktiviteiten hoog van Sovjet marine-eenheden in de eigen vlootgebieden. Zowel in de lokale wateren van de Noordelijke vloot als in de Oostzee werden naast onderzeebootbestrijdings-oefeningen, taktische oefeningen uitgevoerd alsmede AAW (anti-air-warfare) en missile-afvuringen. Deze oefenaktiviteiten korresponderen met de waargenomen oefenaktiviteiten in voorgaande jaren. De voorjaarscyclus begint meestal in de maand februari/maart en loopt in de maand mei ten einde.
  
2. (●) Op 28 januari vond in de Witte Zee een proeflancering plaats van een nieuw ballistisch wapen, mogelijk bestemd voor een nieuw te bouwen strategische ballistische projectielen onderzeeboot, voorlopig bekend als de "TYPHOON-klasse". Deze test werd uitgevoerd in het Nenoska Test Centrum en is vermoedelijk in een mislukking geëindigd.  
Commentaar: De NAVO-aanduiding van de nieuwe missile staat nog niet vast.
  
3. (●) De nieuwe Sovjet klasse onderzeeboot die in de Oostzee wordt gebouwd (BAL-SUB-1) is in november vorig jaar met haar proefvaart begonnen. Deze onderzeeboot, die inmiddels de NAVO-aanduiding "LIMA-klasse (SSAG)" kreeg, is zeer waarschijnlijk diesel voortgestuwd. Na de eerste proefvaart keerde zij terug naar de werf. Zij is uitgerust met een zogenaamd "single small shrouded propellor", hetgeen een indikatie is voor het gebruik met lage vaarten. (Voor nadere bijzonderheden, zie hoofdstuk III.)
  
4. (●) Op 10 februari verlieten de beide onderzoekingsvaartuigen Lebedev en Vavilov (FRYAZINO-klasse) de Oostzee en brachten een bezoek aan Hamburg.

Commentaar: Deze eenheden opereren traditiegetrouw met elkaar. Zij zullen gaan deelnemen aan het Sovjet/US/Canadese POLYMODE-project, dat ongeveer 4 maanden in beslag zal nemen. Het doel hiervan is hydro-acoustisch onderzoek te verrichten bij de Bermuda-driehoek.

### DE MIDDELLANDSE ZEE

#### Algemeen

5. (●) De aktiviteiten van de Sovjet marine in de Middellandse Zee bestond voornamelijk uit surveillance-operaties op Amerikaanse marine-eenheden en westerse oefenaktiviteiten. Een enkele maal werden onderzeebootbestrijdings-oefeningen uitgevoerd o.a. ten oosten van de Golf van Hammamet (Tunesië) en ten noorden van de Golf van Sollum, waarbij de helikopterkruiser Moskva was betrokken. Een verhoging van het aantal SOVMEDRON-eenheden werd ingeluid met de komst van het vliegdekschip Kiev.
6. (●) Montreux-deklaraties. Het deklareren van fregatten en patrouillevaartuigen voor een passage via de Turkse Straten naar de Middellandse Zee vond in februari eveneens plaats. Deze deklaraties werden in de meeste gevallen niet gehonoreerd.
7. (●) Opmerkelijk is het bezoek van een Lybische OSA-II-klasse GW patrouillevaartuig aan Tivat (Joegoslavië), aanvankende op 6 februari voor reparatie en onderhoud. Voorzover bekend is dit de eerste keer dat een dergelijk type vaartuig in Tivat onderhoud krijgt. Bekend was dat Lybische FOXTROT-klasse onderzeeboten aldaar gedurende ruim twee maanden onderhoud krijgen.
8. (●) Na een verblijf van 38 dagen in de Zwarte Zee verliet het vliegdekschip Kiev met een KRIVAK-klasse GW fregat de Zwarte Zee, waar zij deelnam aan verscheidene oefenaktiviteiten. Op 26 februari verliet de vloottanker Berezina eveneens de Zwarte Zee. De Kiev was voorzien van hetzelfde boordnummer als waarmee zij de Noordelijke vloot had verlaten, hetgeen doet veronderstellen dat zij na operaties in de Middellandse Zee en mogelijk ook op de Atlantische Oceaan zal terugkeren naar de wateren van de Noordelijke vloot.

Commentaar: Of de komst van de Kiev verband houdt met een OKEAN'80 oefening valt nog niet te

beoordeleden. Eveneens staat nog niet vast of zij in de Zwarte Zee onderhoud heeft gekregen.

9. (●) Op 26 februari beëindigde de Sovjet tanker Koïda (UDA-klasse) een ruim 4 maanden durende onderhoudsperiode op het Griekse eiland Syros.

Commentaar: Deze tanker was het eerste Sovjet vaartuig dat van de onderhoudsfaciliteiten aldaar gebruik maakte.

10. (●) Op 2 maart zal de helikopterkruiser Moskva met een KRIVAK-klasse GW fregat de Zwarte Zee wederom binnenvaren, na vanaf 26 augustus 1979 in de Middellandse Zee te zijn verbleven. Verscheidene malen heeft zij deelgenomen aan oefeningen (voornamelijk onderzeebootbestrijdingsoefeningen), maar een groot gedeelte van de tijd lag zij bij de ankerplaats in de Golf van Sollum. Op 27 februari is COMSOVMEDRON overgestapt van de Moskva op de Kiev.

#### DE INDISCHE OCEAAN

Bijlage 1 geeft een overzicht van de toegevoegde Sovjet marine-eenheden aan het SOVINDRON in de maand januari/februari van dit jaar.

11. (●) Midden februari verliet een Sovjet marineverband Vladivostok en begaf zich via de Straat van Tsushima naar de Chinese Zee. Het totaal bedroeg 10 eenheden, waarvan er 6 doorvoeren naar de Indische Oceaan. De overige eenheden bleven achter voor de Vietnamese kust. Een 2-tal eenheden van het SOVINDRON werd afgelost: een PETYA-klasse fregat en een KRESTA-II-klasse GW kruiser. Voordat zij de Indische Oceaan verlieten brachten zij een bezoek van enkele dagen aan Sri Lanka. Aan het eind van de maand februari waren minder eenheden betrokken bij surveillance-operaties op Amerikaanse eenheden. Wel werden door de op Aden (Zuid-Yemen) gestationeerde MAY-type onderzeebootbestrijdingsvliegtuigen vluchten gemaakt boven Amerikaanse eenheden. Deze vliegtuigen zijn overigens afkomstig uit Riga en behoren tot het ASW-regiment van de Oostzee, waarbij vermoedelijk 9 MAY's zijn ondergebracht. Hieruit zou blijken dat er nog maar 3 MAY's in de Oostzee ter beschikking zijn. Opvallend was dat verscheidene malen

MAY's werden gesigneerd boven de Arabische Zee die van dezelfde boordnummers waren voorzien. Gedurende de maand februari werd de patrouille bij de Straat van Hormuz permanent bezet. Een Elint-vaartuig was voortdurend in de Noord-Arabische Zee op patrouille. Ten zuiden van Socotra opereert de marinehydrograaf L. Sobolev met een ZULU-klasse onderzeeboot, die voor research-doeleinden wordt ingezet. Op 18 februari zou een RIGA-klasse fregat en het commandoschip Taman (VYTEGRALES-klasse) gebruik hebben gemaakt van de zogenaamde Tamrida havenfaciliteiten bij Socotra. Dit is, voorzover dezerzijds bekend, de eerste maal dat aanwezigheid van deze (Tamrida) havenfaciliteiten werden genoemd. Deze faciliteiten zouden zich bij Hadibu bevinden. Wat die faciliteiten precies omvatten is nog niet geheel duidelijk.

#### DE STILLE OCEAAN

12. (●) Op + 26 januari bevonden 2 BEAR-DELTA lange afstand maritieme patrouillevliegtuigen zich te Da Nang (Vietnam). Het betrof de 7e detachering van BEAR's op Da Nang, nadat de laatste in oktober 1979 was beëindigd. Op 30 januari bleken zelfs 4 BEAR's aanwezig te zijn, vermoedelijk 2 BEAR-D en 2 BEAR-F. Dit was, voorzover bekend, de eerste detachering waarbij meer dan 2 BEAR's aanwezig waren. Op 1 februari voerden 2 BEAR's een surveillancevlucht uit boven het Amerikaanse vliegkampschip Kitty Hawk, die terugkeerde vanuit de Arabische Zee naar haar thuishaven. Op 12 en 13 februari werden vluchten gemaakt door in totaal 8 BEAR's o.a. boven de Zuid-Chinese Zee. Hierbij waren 2 BEAR's betrokken die afkomstig waren uit Da Nang.

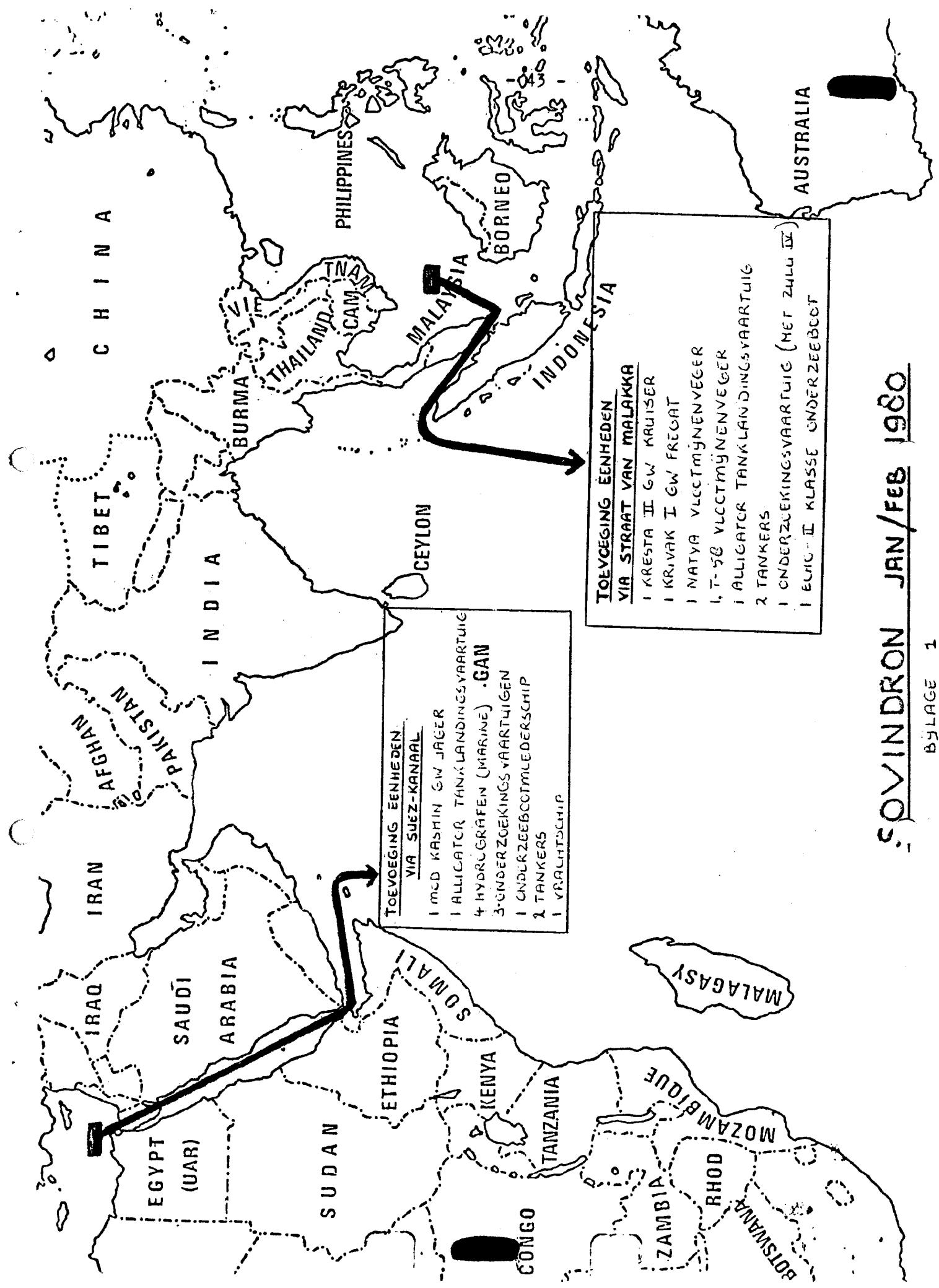
Commentaar: De eerste detachering van BEAR's naar Da Nang vond plaats van 11-26 april 1979. Meldingen van BEAR-F ontbraken. Vermoedelijk heeft de BEAR-F eenzelfde rol als de MAY, maar het toestel heeft wel een veel groter bereik dan de MAY. Het wordt niet uitgesloten dat deze BEAR's ook verkenningsvluchten boven de Indische Oceaan hebben gemaakt.

LEVERANTIES VAN SOVIET MARITIEM MATERIEEL

13. (●) Het koopvaardijschip OLA leverde eind februari een tweetal TURYA-klasse draagvleugel patrouillevaartuigen af aan Cuba, die daarmee haar derde en vierde eenheid ontving.

Commentaar: De eerste 2 TURYA's die Cuba in februari vorig jaar geleverd kreeg, waren niet van onderzeebootbestrijdingsmogelijkheden voorzien. Dit laatste kan voor wat betreft de derde en vierde eenheid nog niet worden bevestigd. TURYA's worden gebouwd te Vladivostok.

14. (●) Vermoedelijk is eind februari een POLNOCNY-klasse landingsvaartuig geleverd aan Vietnam. Deze eenheid was niet van een bordnummer voorzien. Indien deze eenheid is geleverd, is dit de tweede POLNOCNY voor Vietnam.



SOVINDRON JAN/FEB 1980

HOOFDSTUK 3

KARAKTERISTIEKEN VAN COMBATTANTEN  
EN HULPSCHEPEN

LIMA-KLASSE (SSAG)

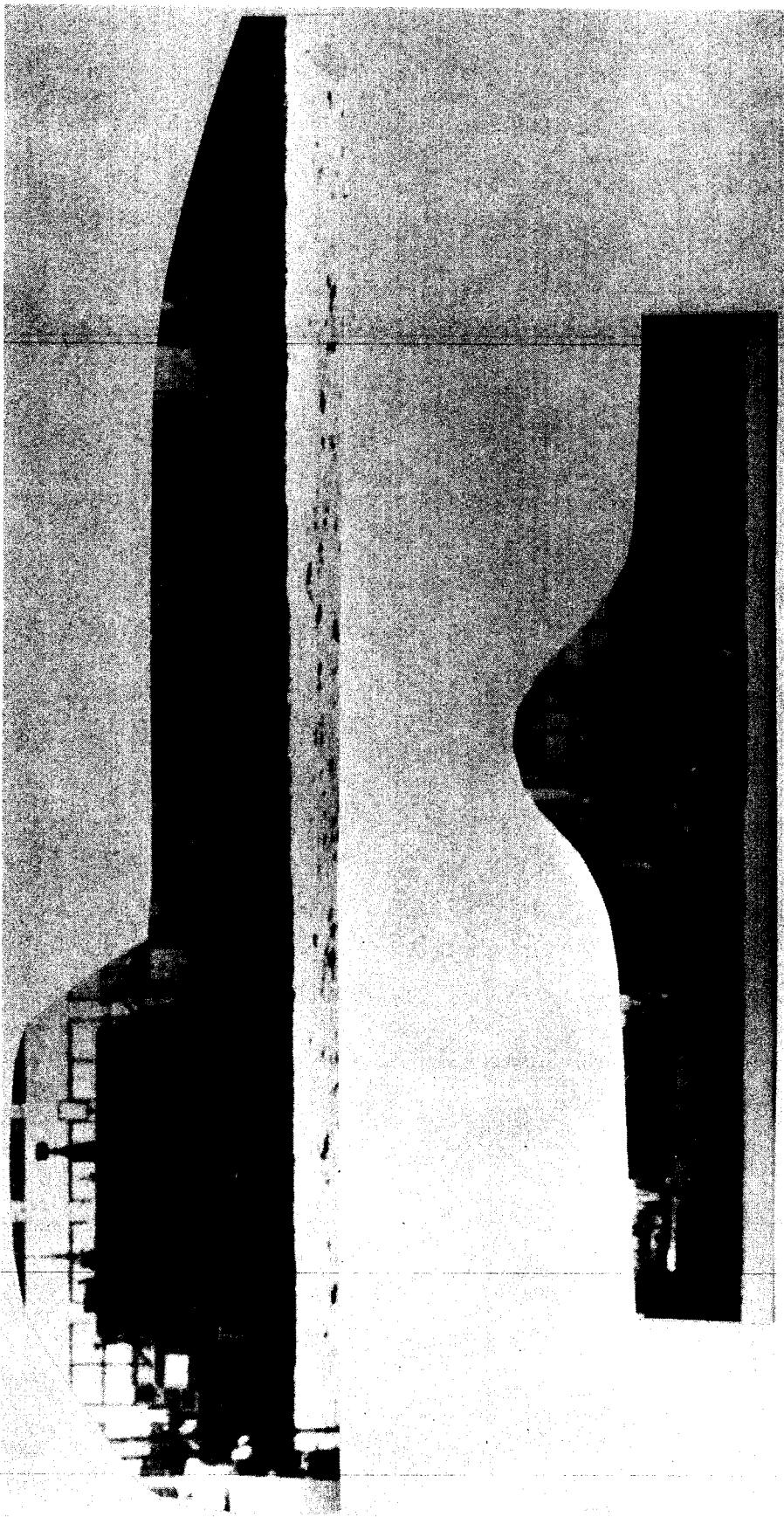
Ident. Nr.	Class	STSG	SType	Project	IOC	Country	Review Date
	LIMA-klasse	SSAG			UR		7912
A. Legend Details		B. Armament					Supply
01	Subm Displ	t	2 400				u/i search radar
02	Surf Displ	t	2 000 (est)				u/i DF loop
03	Standard Displ	t					Stay bright bow sonar
04	Length OA (DWL)	m	• 86 (82.5) *				Stay bright sail sonar
05	Beam Max (DWL)	m	8.9 (8.2) *				
06	Draft Mean	m	7.4				
07	Height	m	13.8				
08	Pressure Hull	m x m	00.0 x 7.5				
09	Propulsion Type						
10	Subm Power	hp					
11	Surf Power	hp					
12	Subm Speed/Range	kts/nm					
13	Surf Speed/Range	kts/nm					
14	Snort Speed/Range	kts/nm					
15	Econ Speed/Range	kts/nm					
16	Propellers/Blades	1/6 (shrouded)					
17	Fuel t/type						
18	Complement total						
19	Diving Depth Norm	m					
20	Diving Depth Max	m					
21	Diving Depth Coll	m					

- 45 -

\* Measured from Dec 1979 photography

\*\* Diameter of shroud ring 1.8 m, indicating a maximum of ca 2 000 hp and a maximum submerged speed of 10-12 kts. The propulsion system of this class is unidentified however. The lack of a fixed schnorkel exhaust may be significant. The sail resembles that of the PAPA class. The steering is reported similar to that on the JULIETT and TANGO classes.

) )



SS LIMA Class