[redacted]

ex. 86

16 ~~april~~ juli 1980

MARINE INLICHTINGENDIENST

INLICHTINGENRAPPORT

nr. 6/80

~~MAART~~ juni 1980

OPMERKINGEN

1. Personeel van de Koninklijke Marine mag op "need-to-know"-basis kennis nemen van de in het inlichtingenrapport 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-CZMNED.

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 wenst aan te houden dient hij dat schriftelijk mede te delen aan het hoofd MARID.

04 = IDB verm 10/12

05 = IA 1/A

06 = HV 1/A

07 = HI 1/A

08 = MARAT

[redacted]

90 HMARID 7/8/80 verm

91 IC - verm 6/8/80

92 IB HIX 20.8.80 verm.

93 HIII - HVD 10/9/80 verm

94 II - IV - SEA

[redacted]

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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

[redacted]

Inleiding.

1. [redacted] In het navolgende artikel volgt een beschouwing over de huidige stand van zaken op militair gebied bij de Warschau Pakt-strijdkrachten.
Deze "briefing" was o.m. bestemd ter voorlichting van de NAVO Verenigde chefs van staven, in Military Committee (MC) vergadering bijeen op 12 mei 1980.

2. [redacted] Het - onlangs herziene - NAVO inlichtingenhandboek, MC 161/80, heeft hierbij als uitgangspunt gediend. Dit boek vertegenwoordigd in NAVO-verband de hoogste autoriteit op het gebied van alles door NAVO-landen verzamelde en -onderschreven- inlichtingen.

3. [redacted] Alleen de belangrijste en in het oog springende sterke- en zwakke punten worden aangehaald. De zich immer in opgaande lijn bewegende, Sovjet militaire dreiging, wordt markant belicht.
Het betoog wordt daarbij krachtdadig ondersteund door het aangeven van aanzienlijke niveau-verschillen voor de diverse hedendaagse dreigings-aspekten in vergelijking met een tiental jaren terug.

Warsaw Pact Developments.

4. [redacted] "THE SOVIET UNION REMAINS COMMITTED TO AN IDEOLOGY WHICH POSTULATES THE ULTIMATE ACHIEVEMENT OF WORLD COMMUNISM UNDER SOVIET LEADERSHIP. IN SUPPORT OF ITS POLICIES THE SOVIET UNION IS CONTINUING TO BUILD UP ITS ECONOMIC AND MILITARY POWER". THAT STATEMENT, COMES FROM MC 161 OF 1970. A COMPARABLE STATEMENT TAKEN FROM MC 161 OF 1980 SAYS THAT "THE USSR REMAINS COMMITTED TO ENHANCING THE SECURITY OF THE SOVIET STATE, BECOMING THE WORLD'S PREDOMINANT POLITICAL AND MILITARY POWER, AND DEVELOPING THE ECONOMIC BASE TO SUPPORT THESE AIMS". IT IS CLEAR THAT THE AIMS AND OBJECTIVES OF SOVIET STATE POLICY HAVE NOT CHANGED IN THE COURSE OF A DECADE OF DETENTE. WHAT HAS CHANGED IS THEIR ABILITY TO FURTHER THOSE AIMS AS A CONSEQUENCE OF ACQUIRING GREATLY ENHANCED MILITARY POWER.

5. [redacted] INDEED THEY MAY NOW HAVE REACHED A POINT ON THE PATH TOWARD STRATEGIC SUPERIORITY WHICH WILL PERMIT THEM TO COME DOWN MORE BOLDLY THAN EVER IN FAVOUR OF FORCE IN ASSESSING THE RATIO OF RISK TO GAIN. UNDER SUCH CIRCUMSTANCES THE THREAT IS EXPANDING AS THE SPHERE OF POTENTIAL SOVIET DOMINATION BECOMES BROADER AND MORE DIVERSE.

6. ([redacted]) LAST YEAR'S BRIEFING STATED THAT NO SINGLE DEVELOPMENT, IN COMPARISON WITH DEVELOPMENTS OF THE PREVIOUS YEAR, HAD BEEN OF SUCH A NATURE AS TO STAGGER THE IMAGINATION ALTHOUGH THE CATALOGUE OF IMPROVEMENTS, TAKEN COLLECTIVELY, CONSTITUTED A CONSTANTLY GROWING MILITARY THREAT TO THE ALLIANCE WHICH WAS, TO SAY THE LEAST, DISTURBING, THAT STATEMENT IS STILL RELEVANT WITH RESPECT TO THE CATALOGUE OF IMPROVEMENTS FOR 1979 BUT COMES INTO EVEN SHARPER FOCUS WHEN LOOKED AT OVER THE PAST DECADE.

7. ([redacted]) IN TERMS OF MANPOWER THE WARSAW PACT FORCES HAVE INCREASED BY JUST OVER 20%. THIS INCREASE IN ITSELF GIVES SOME CAUSE FOR CONCERN, BUT IN COMBINATION WITH A CONSTANT FLOW OF NEW EQUIPMENT ALL OF WHICH REFLECTS EXTRAORDINARY PROGRESS IN ADVANCED TECHNOLOGY THE IMPROVED CAPACITY TO MAKE WAR AND TO USE MILITARY POWER TO ACHIEVE THE STATED AIMS OF THE SOVIET UNION COULD BE DESCRIBED AS OMINOUS.

8. ([redacted]) LET US CONSIDER SOME EXAMPLES. FIRST MISSILES, THE HALLMARK OF A SUPER-POWER IN THE SECOND HALF OF THE TWENTIETH CENTURY.

9. ([redacted]) IN 1970 THE STRATEGIC ROCKET FORCES HAD FIVE ICBM SYSTEMS; SS 7, 8, 9, 11 AND 13. NONE WERE MIRVed, AND LACK OF ACCURACY WAS COMPENSATED FOR BY HIGH YIELDS. SOME 1280 LAUNCHERS WERE DEPLOYED GIVING THE SAME NUMBER OF WARHEADS.

10. ([redacted]) IN 1980 THE SS 7s, 8s and 9s HAVE GONE AND ALTHOUGH SOME 600 SS 11s AND 13s REMAIN IN THE INVENTORY THE LARGER PART OF THE FORCE COMPRISES THE NEW MIRVed SS 17s, 18s AND 19s. THE TOTAL NUMBER OF ICBM LAUNCHERS REMAIN ABOUT THE SAME, 1300, BUT THERE ARE NOW OVER 5000 WARHEADS, STILL WITH HIGH YIELDS ANDS WITH VASTLY IMPROVED ACCURACY. AND THIS NUMBER OF WARHEADS WILL CONTINUE TO GROW AS MORE OF THE NEW GENERATION MISSILES REPLACE OLDER MODELS. THE FACT IS THAT SINCE 1970 THE SOVIETS HAVE ADVANCED TO A POSITION, AND HERE IS QUOTED FROM MC 161/80, "WHERE THEY APPEAR TO BE CAPABLE OF ACHIEVING AN OPTION FOR A COUNTERFORCE CAPABILITY AGAINST CURRENT US LAND-BASED MISSILES BY MID-1981".

BUT THAT IS NOT ALL.

11 ([redacted]) SOVIET MEDIUM AND INTERMEDIATE RANGE BALLISTIC MISSILES AND MISSILE LAUNCHERS HAVE ALSO MOVED FORWARD IN TERMS OF CAPABILITY SINCE 1970. AT THAT TIME ABOUT 100 SS 4s AND 550 SS 5s HAD BEEN DEPLOYED. THEY EACH CARRIED A SINGLE WARHEAD, COULD BE FIRED ONLY FROM A FIXED SITE, LACKED ACCURACY AND THE SS 4 HAD A RANGE OF LESS THAN 2000 KM. ABOUT 340 SS 4s AND 50 SS 5s REMAIN IN SERVICE IN 1980 AND THE NEW, ROAD MOBILE, HIGHLY ACCURATE SS 20 WITH A RANGE OF UP TO 5000 KM IS IN THE PROCESS OF DEPLOYMENT. 160 OF THESE LAUNCHERS HAVE BEEN DEPLOYED SO FAR AND EACH WARHEAD HAS 3 MIRVs. THIS IS A FORMIDABLE WEAPON AND BECAUSE OF ITS MOBILITY, EXTREMELY DIFFICULT FOR THE ALLIANCE TO TARGET. AS A CONSEQUENCE OF THIS AND OF THE ADDITION OF THE BACKFIRE BOMBER, NEW NUCLEAR CAPABLE FRONTAL AVIATION AIRCRAFT, IMPROVED SHORT RANGE MISSILES AND NUCLEAR CAPABLE ARTILLERY, THE SOVIET THEATRE NUCLEAR FORCES HAVE ALSO BECOME A FORCE TO BE RECKONED WITH.

12. ([redacted]) ON THE NAVAL SIDE THE SOVIETS POSSESSED IN 1970 A TOTAL OF 22 NUCLEAR POWERED BALLISTIC MISSILE FIRING SUBMARINES, OF WHICH 13 WERE OF THE THEN "NEW" YANKEE CLASS. THAT FIGURE OF 22 HAS NOW TRIPLED TO 69 NUCLEAR POWERED BALLISTIC MISSILE FIRING SUBMARINES OF WHICH 29 ARE YANKEEs AND 33 ARE THE NEW DELTA CLASS. NONE OF THE MISSILES IN 1970 CARRIED MIRVed WARHEADS; IN 1980 THREE OF THE MISSILES DEPLOYED ON THESE VESSELS ARE MIRVed. IN 1970 THE YANKEE MOUNTED MISSILES WERE OF SUCH A RANGE THAT THE SUBMARINES HAD TO BE DEPLOYED IN THE WESTERN ATLANTIC AND EASTERN PACIFIC TO REACH TARGETS IN NORTH AMERICA. TWO MISSILES ON THE DELTA CLASS SUBMARINES, THE SS-N-8 AND THE SS-N-18 ARE NOW CAPABLE OF STRIKING TARGETS IN NORTH AMERICA OR ELSEWHERE AT A RANGE OF UP TO 9000 KM. WITHOUT LEAVING HOME WATERS. NEW LARGE NUCLEAR POWERED SUBMARINES AND NEW SUBMARINE LAUNCHED BALLISTIC MISSILES ARE EXPECTED TO BECOME OPERATIONAL IN THE EARLY 1980s.

NAVAL FORCES

13. ([redacted]) BUT IMPROVEMENTS TO THE NUCLEAR POWERED SUBMARINE BALLISTIC MISSILE FORCE HAVE NOT BEEN ADMIRAL GORSHKOV's SOLE PREOCCUPATION. HE HAS AT THE SAME TIME VIGOROUSLY ADDRESSED THE OVERALL ABILITY OF THE SOVIET NAVY TO PROJECT POWER ABROAD IN SUPPORT OF POLITICAL GOALS.

ONCE AGAIN THERE HAS BEEN SOME INCREASE IN THE NUMBER OF MAJOR SURFACE COMBATANTS, FROM 209 IN 1970 TO 281 IN 1980, BUT THE QUALITATIVE IMPROVEMENTS HAVE BEEN MORE IMPRESSIVE AND OF GREATER SIGNIFICANCE. IN 1970 THERE WERE NO KIEV CLASS SHIPS AT SEA. NOW THERE ARE TWO AND TWO MORE ARE EXPECTED; COMPLETE WITH THE FIRST GENERATION OF A PURPOSE ORIENTED AIRCRAFT - THE FORGER. THERE WERE NO MISSILE FRIGATES IN 1970; NOW THERE ARE 28 KRIVAKS AND THE NUMBER OF MISSILE CRUISERS HAS NEARLY TRIPLED FROM 10 IN 1970 TO 27 IN 1980 INCLUDING 7 OF THE NEW KARA CLASS OF WHICH THERE WERE NONE IN 1970. MOREOVER A NUCLEAR POWERED MISSILE CRUISER, THE 22000 TON BAL-COM-1 WILL BECOME OPERATIONAL THIS YEAR AND NEXT YEAR THE FIRST 8000 TON GAS TURBINE MISSILE CRUISER BAL-COM-2 WILL BECOME OPERATIONAL. IVAN ROGOV IS NOW AVAILABLE TO SUPPORT AMPHIBIOUS OPERATIONS, WHILE THE 35,000 TON BEREZINA PROVIDES A GREATLY ENHANCED LOGISTICS AFLOAT CAPABILITY WHICH HAS FOR LONG BEEN AN AREA OF WEAKNESS FOR THE SOVIET NAVY.

1 .

14. (●) IN 1970 ABOUT 25% OF THE ACTIVE SUBMARINE FORCE WAS NUCLEAR POWERED. NOW IT IS NEARLY HALF. AND FOUR NEW NUCLEAR POWERED ATTACK SUBMARINES OF THE ALPHA CLASS HAVE APPEARED AFTER PAINSTAKING YEARS OF RESEARCH AND DEVELOPMENT, PROBABLY WITH TITANIUM HULLS AND A DEEP DIVING CAPABILITY WHICH STRETCHES TO THE LIMITS OF TODAYS TECHNOLOGY. IMPROVED CRUISE MISSILE SUBMARINES HAVE ALSO BEEN DEPLOYED RESULTING FROM THE PROGRESSIVE MODIFICATION FORTHE ECHO II CLASS TO CARRY A NEW MISSILE, THE PROBABLE INTRODUCTION OF YET ANOTHER NEW MISSILE IN THE CHARLIE II CLASS AND THE DEVELOPMENT OF ADVANCED TARGETTING TECHNIQUES.

15. (●) THE NAVAL AIR FORCES HAVE KEPT PACE WITH THESE IMPROVEMENTS AND NOW INCLUDE GROWING NUMBERS OF BACKFIRE BOMBERS, THE FORGER VTOL AIRCRAFT WHICH IS ALREADY MENTIONED AND HAZE ANTI-SUBMARINE HELICOPTERS NONE OF WHICH WERE PRESENT IN 1970. THE SOVIETS CLEARLY UNDERSTAND THAT NAVAL POWER AND AIR POWER GO HAND IN HAND.

16. (●) THESE IMPROVEMENTS, COUPLED WITH THE ACQUISITION OF BASES IN DISTANT AREAS HAVE ALLOWED THE SOVIETS TO EXPAND THEIR NAVAL OPERATIONS INTO EVERY SEA AREA OF THE WORLD IN WHICH THEY HAVE AN INTEREST.

GROUND FORCES

17. ([redacted]) THE WARSAW PACT CURRENTLY MAINTAINS 228 ACTIVE DIVISIONS, OF WHICH 173 ARE SOVIET; THIS IS NOT SIGNIFICANTLY DIFFERENT FROM THE 1970 FIGURES ALTHOUGH THE NUMBER OF SOVIET DIVISIONS THEN WAS 159. IN 1970 THE WARSAW PACT HAD SOME 49,000 TANKS WHILE THE 1980 FIGURE IS 56,000. WHAT IS SIGNIFICANT IS NOT THE 14% INCREASE IN NUMBERS, BUT THE COMPARATIVE COMPOSITION OF THE INVENTORIES. WHEREAS 10 YEARS AGO THE MAIN INVENTORY CONSISTED OF T-54/55s AND T-62s, THE PRESENT FORCE CONTAINS AN INCREASINGLY HIGHER PROPORTION OF THE MORE HEAVILY ARMED AND BETTER PROTECTED T-64s AND T-72s, WHICH NOW NUMBER 13,000. IN ADDITION A NEW TANK, THE T-80, IS UNDER TEST. IN TANKS AS IN OTHER EQUIPMENT THE RELENTLESS PACE OF TECHNOLOGICAL ADVANCE IS BEING MAINTAINED.

18. ([redacted]) THE GROUND FORCE TACTICAL MISSILES WHICH CONSISTED OF FROGs, SCUDs AND INITIAL DELIVERIES OF SCALEBOARDs, WILL SOON CONSIST OF THEIR SUCCESSORS THE SS 21, SS 22 AND SS 23.

19. ([redacted]) INSTEAD OF USING GENERAL PURPOSE TRUCKS AS PERSONNEL CARRIERS AND THE OLDER BTR-40s AND BTR-152s WHICH WERE NOT AMPHIBIOUS AND HAD LIMITED CROSS COUNTRY MOBILITY, THE CURRENT WARSAW PACT FORCE OF ARMOURED INFANTRY COMBAT VEHICLES AND ARMOURED PERSONNEL CARRIERS IS COMPOSED PRIMARILY OF NEW GENERATION BMPs, BTR-60s AND BTR M-1978s. WHEREAS NO SELF-PROPELLED ARTILLERY WAS AVAILABE IN 1970, FOUR MODELS ARE NOW IN SERVICE, TWO OF WHICH HAVE A NUCLEAR CAPABILITY. THREE NEW GENERATION ANTI-TANK GUIDED MISSILES POSSESSING IMPROVED PENETRATION, SHORTER MINIMUM RANGE AND INCREASED VELOCITY ARE NOW IN SERVICE. IN 1970 AIR DEFENCE FOR GROUND TACTICAL UNITS WAS PROVIDED PRIMARILY BY LIGHT ANTI-AIRCRAFT ARTILLERY AND THE SA-4 AND ZSU-23-4 WERE ONLY JUST BEING DEPLOYED. IN 1980 THE HIGH ALTITUDE DEFENCE SA-4s ARE BEING AUGMENTED BY THE MEDIUM ALTITUDE SA-6 AND THE MEDIUM AND LOW ALTITUDE SA-8, WHICH HAVE REPLACED ANTI AIRCRAFT ARTILLERY IN MANY SOVIET AND SOME NON SOVIET WARSAW PACT DIVISIONS. FOR LOW ALTITUDE DEFENCE THE SA-9 COMPLEMENTS THE NOW STANDARD ZSU-23-4 AND THE SA-7 IS IN THE HANDS OF THE SOLDIER. THE TREND, IS TO PLACE MORE AND MORE RELIANCE ON SURFACE TO AIR MISSILES FOR THE TACTICAL PROTECTION OF DEPLOYED GROUND FORCES.

AIR FORCES

20. ([redacted]) WITH RESPECT TO AIR FORCES THE TOTAL NUMBER OF WARSAW PACT AIRCRAFT AND HELICOPTERS HAS INCREASED BY ABOUT 30%. THE SOVIET AIR FLEET, TAKEN AS A WHOLE HAS INCREASED BY NEARLY 40%. MOREOVER THE AVIONICS, PENETRATION CAPABILITIES, RANGE, ELECTRONIC COUNTER MEASURES CAPABILITIES AND IMPROVED TACTICAL AIR TO SURFACE MISSILES HAVE BEEN INTEGRATED WITH BOTH TOTALLY NEW AND UPGRADED OLDER AIR FRAMES. HIGH PERFORMANCE AIRCRAFT ARE NOW THE RULE RATHER THAN THE EXCEPTION AND ALL INDICATIONS ARE THAT THIS TREND WILL CONTINUE.

21. ([redacted]) THE LONG RANGE BOMBER FORCE HAS REDUCED IN SIZE FROM 815 IN 1970 TO A LEVEL OF 680 TODAY, BUT THIS NUMERICAL DROP IS MORE THAN OFFSET BY SEVERAL FACTORS. IN 1970 THE BACKFIRE WAS ONLY IN THE PROTOTYPE STAGE. NOW 65 ARE AVAILABLE IN THE LONG RANGE BOMBER FORCE ALONE. AND FOR EVERY BACKFIRE DELIVERED TO SOVIET LONG RANGE AVIATION ANOTHER IS DELIVERED TO NAVAL AVIATION. MOREOVER THE LONG RANGE AVIATION IS NOW SUPPORTED BY 100 ELECTRONIC WARFARE FITTED BADGERs AND 50 BADGER AND BISON TANKERS; NEITHER ELECTRONIC WARFARE NOR TANKER SUPPORT WAS ATTRIBUTED TO LONG RANGE AVIATION 10 YEARS AGO. THE NUMBER OF SOVIET TACTICAL AVIATION AIRCRAFT HAS RISEN SHARPLY FROM 4, 625 TO 7,650, A GAIN OF 65%, BUT WHEREAS THE 1970 COMPOSITION INCLUDED NUMEROUS AIRCRAFT WHICH ARE NOW OBSELESCENT THE CURRENT FORCE IS COMPOSED OF LATE MODEL AIRCRAFT SUCH AS FLOGGERs AND FENCERs. POSSIBLY THE MOST STRIKING COMPARISON DURING THE 10 YEAR PERIOD IS IN THE FIELD OF HELICOPTERS IN MC 161/70 IT WAS STATED THAT "THERE IS NO EVIDENCE THAT THE SOVIETS HAVE DEVELOPED A HELICOPTER INTENDED SPECIFICALLY FOR ARMED MISSIONS" - TODAY THERE ARE 895 HEAVILY ARMED HINDs AND HIPS. SIMILARLY THE NUMBER OF MEDIUM AND HEAVY HELICOPTERS HAS GROWN FROM 845 TO 3.255, AN ALMOST FOUR FOLD INCREASE, AND THIS ADDS FLEXIBILITY, MOBILITY AND DEPTH TO THE SUPPORT OF GROUND OPERATIONS. IN THE AREA OF MILITARY TRANSPORT AVIATION THE IMPROVEMENT NOTED IN VIRTUALLY ALL OTHER FIELDS HAS NOT YET TAKEN PLACE. BUT THE SOVIETS WILL IMPROVE THEIR CAPABILITIES IN THE NEXT FEW YEARS WHEN NEW AIRCRAFT BOTH WIDE-BODY AND STOL COME INTO SERVICE. MEANTIME IF THERE IS ANY DOUBT ABOUT THEIR ABILITY TO MOVE LARGE NUMBERS OF MEN AND SUPPLIES BY AIR IT WILL BE ASSUAGED BY OBSERVING THAT OVER THE DECADE THEY HAVE TOTALLY CHANGED THEIR TWICE YEARLY TROOP ROTATION OF AT LEAST 130,000 MEN FROM RAIL TO AIR, USING AEROFLOT AIRCRAFT AND CONDUCTED HIGHLY EFFECTIVE AND SOPHISTICATED AIR LIFT OPERATIONS INTO SYRIA, ANGOLA, ETHIOPIA AND MOST RECENTLY AFGHANISTAN.

22. ([redacted]) THE WARSAW PACT HAS ALSO IMPROVED ITS AIR DEFENCES BY THE EMPLOYMENT OF MORE OVERLAPPING RADARS, SURFACE TO AIR MISSILES AND INCREASED FIGHTER CAPABILITIES PROVIDED BY NEW AIRCRAFT AND MISSILES. AIR DEFENCE IS STILL LIMITED AT LOW ALTITUDES BUT SHOULD IMPROVE WITH THE DEPLOYMENT OF NEW SYSTEMS IN THE MID-1980s, INCLUDING THE LOW ALTITUDE SA-X-10 WHICH MAY BECOME OPERATIONAL IN THE NEXT YEAR OR SO, AND A NEW INTERCEPTOR WITH A LOOK-DOWN/SHOOT-DOWN CAPABILITY LATER IN THE DECADE.

23. ([redacted]) DESPITE ALL THE IMPROVEMENTS AND ADVANCES WHICH HAVE BEEN VERY BRIEFLY TOUCHED UPON, THERE ARE NEVERTHELESS AREAS OF VULNERABILITY.

24. ([redacted]) AT THE INTERCONTINENTAL LEVEL THE SOVIETS STILL HAVE INSUFFICIENT DEPLOYED MISSILES WITH THE NECESSARY COMBINATION OF YIELD AND ACCURACY TO THREATEN CONCURRENTLY ALL THE TARGETS WHICH WOULD HAVE TO BE THREATENED TO SUPPORT A FULL COUNTER-FORCE CAPABILITY. AT THE THEATRE LEVEL THE REMAINING SS 4 AND 5 SITES ARE VULNERABLE DUE TO A LACK OF HARDENING. THE SUBMARINE LAUNCHED BALLISTIC MISSILE FORCE LAGS BEHIND NATO IN SUBMARINE NOISE REDUCTION PRACTICES AND IN PASSIVE SONAR CAPABILITIES

25. ([redacted]) THE SOVIET NAVY DESPITE ITS SIZE, STRENGTH IN ANTI-SHIP MISSILES, CAPABILITY FOR RADIO ELECTRONIC COMBAT SUPPORT AND SUBSTANTIAL AUXILLIARY SUPPORT STILL HAS LIMITED FLEET AIR DEFENCE CAPABILTIES IN DISTANT WATERS, LIMITED UNDERWAY LOGISTIC SUPPORT, A CENTRALIZED CONTROL WHICH IS TOO RIGID, A GEOGRAPHIC NEED TO MAINTAIN FOUR WIDELY SEPARATED FLEETS, A LACK OF MAJOR NAVAL ALLIES AND A CONSTANT NEED FOR FLEET FACILITIES ABROAD.

26. ([redacted]) THE GROUND FORCES TILL HAVE A TRAINING AND EXERCISE SYSTEM WHICH LEADS TO STEREOTYPED TACTICS AS WELL AS A CERTAIN INFLEXIBILITY AND LACK OF INITIATIVE ESPECIALLY AT THE JUNIOR COMMANDER LEVEL AND AN INCREASING NEED FOR TECHNICAL SKILLS. MOREOVER THE HIGH PROPORTION OF CONSCRIPTS AND RESERVISTS PRESENTS DIFFICULTIES IN FIELDING AN ARMY WITH SUFFICIENT TRAINING AND EXPERIENCE. MOST OF THIS HAS BEEN DEMONSTRATED IN AFGHANISTAN, WHERE THE LACK OF COMBAT EXPERIENCE IS BEING ADDRESSED, WHERE NEW EQUIPMENT AND TACTICS ARE BEING TESTED AND A NEW GENERATION OF MILITARY LEADERS IS BEING EXPOSED TO COMBAT FOR THE FIRST TIME.

27. (●) THE AIR FORCES ALSO SUFFER FROM OVER CENTRALIZED COMMAND AND CONTROL, A LIMITED NUMBER OF AIRCRAFT SUITABLE IN EVERY RESPECT FOR INTERCONTINENTAL LONG RANGE BOMBING OPERATIONS, A LACK OF EXPERIENCE IN BAD WEATHER AND LOW ALTITUDE OPERATIONS, INSUFFICIENT PILOT TRAINING HOURS, A TENDENCY TO INTEGRATE TACTICAL AVIATION WITH ARTILLERY FOR GROUND SUPPORT WHICH DOES NOT TAKE ADVANTAGE OF THE INHERENT FLEXIBILITY OF AIR POWER, AND THE CURRENT LACK OF AN EFFECTIVE FIGHTER AIRCRAFT WITH A LOOK-DOWN/SHOOT-DOWN CAPABILITY; BUT THIS MAY NOT LAST LONG.

28. (●) SO FAR AS AIR DEFENCE IS CONCERNED THEIR ABILITY FOR DETECTION AND INTERCEPTION IS VERY LIMITED AGAINST HIGH SPEED VERY LOW LEVEL TARGETS AND TARGETS WITH A SMALL RADAR CROSS SECTION AND THEY ARE VULNERABLE TO HEAVY ELECTRONIC COUNTER-MEASURES, SATURATION TACTICS AND STAND-OFF WEAPONS.

29. (●) IN SCIENCE AND TECHNOLOGY THE MOST CRITICAL WEAKNESS IS IN THE AREA OF COMPUTER TECHNOLOGY WHERE THE WEST STILL HAS THE LEAD.

30. (●) ON BALANCE, HOWEVER, ONE HAS TO LOOK HARDER FOR WEAKNESSES THAN ONE DOES FOR STRENGHTS AND THE TREND LINES FOR THE WARSAW PACT HAVE ALL HAD AN OVERALL UPWARD THRUST.

CONCLUSION

31. (●) LAST YEAR's BRIEFING WAS CONCLUDED BY SAYING THAT, IN COMPARISON WITH THE PREVIOUS YEAR, THE PRINCIPAL INSTRUMENT OF SOVIET POLICY - SOVIET MILITARY POWER - WAS GETTING BETTER AND STRONGER AND MORE FORMIDABLE WITH EVERY YEAR THAT PASSES. THE CONCLUSIONS OF THE MC 161/80 CONFERENCE LEAVE NO REASON TO DOUBT THAT THAT STATEMENT HOLDS TRUE. THE SOVIET ARMY HAS ONE NEW GENERATION OF TANKS ALREADY IN OPERATION AND ANOTHER BEING TESTED, ALL INCORPORATING TECHNOLOGY WHICH REACHES TOWARD THE LIMITS OF TODAYS KNOWLEDGE. THE AIR FORCES HAVE A NEW BOMBER AND TWO NEW TACTICAL AVIATION FIGHTERS. WHERE THERE WERE NO ATTACK HELICOPTERS THEN THERE ARE NOW ALMOST A THOUSAND. A THIRD KIEVE CLASS SHIP WILL BE OPERATIONAL SOON. A DECADE EARLIER THERE WERE NONE.

AND THIS SAME LITANY OF BALANCED IMPROVEMENTS CARRIES OVER TO THEATRE NUCLEAR AND STRATEGIC NUCLEAR FORCES. THERE ARE WEAKNESSES - CERTAINLY, AND SOME OF THEM ARE BEING DESCRIBED HERE IN, BUT THEY ARE BEING ACTIVELY ADDRESSED AND ARE FAR FEWER THAN JUST 10 YEARS AGO.

ANTI-SCHIP GELEIDEWAPEN SS-N-2c.

32. Meer recente gegevens omtrent de physieke afmetingen van geleide wapens, behorende tot de STYX- familie geven een afwijkende lengtemaat voor de SS-N-2c. (zie tekening 1.)

33. Tot nu toe werd aangenomen dat de lengte van de drie raketten in de STYX- familie identiek was. Wel stond het vast dat de lanceerinstallatie van het derde ontwikkelde wapen, de SS-N-2c, langer was dan die van de SS-N-2a en SS-N-2b.

34. De stand van zaken is nu als volgt:

	SS-N-2a/2b	SS-N-2c
a. lengte	6,50 meter	6,80 meter
b. doorsnede	0,80 "	0,80 "
c. spanwijdte	2,50 "	2,50 "

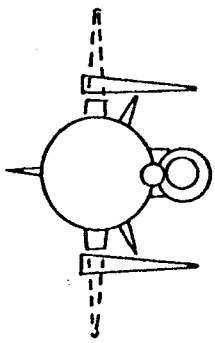
35. De langere SS-N-2c lanceerinstallaties worden aangetroffen op de navolgende scheepsklassen:

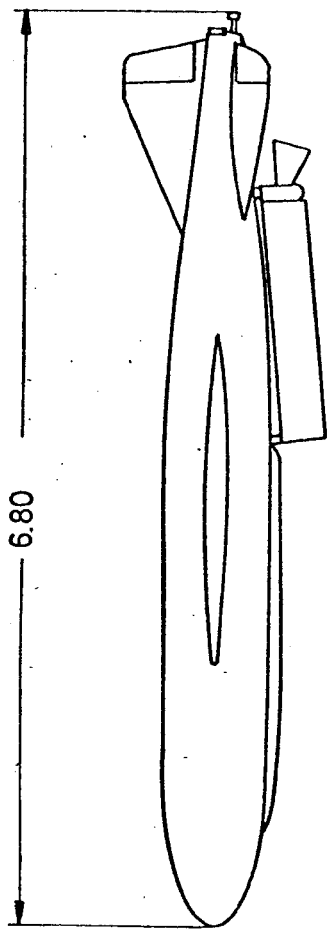
a. KASHIN MOD (DDGM) MATKA (PHGS)

b. KILDIN MOD (DDGS) TARANTUL (PGGS)

36. Hierbij dient te worden opgemerkt dat alleen bij de Sovjet Oostzeevloot nog een tweetal OSA-II klasse eenheden bestaan die ook over de langere SS-N-2c afvuurinstallatie beschikken; de overige OSA-klasse geleidewapen- patrouillevaartuigen zijn voorzien van de SS-N-2a/2b installatie.

37. Het meest in het oog lopende verschil tussen SS-N-2a/2b en SS-N-2c is wel het sterk vergrote afstandbereik van de SS-N-2c 83 km (45 nm) tegenover 46 km (25 nm) van de SS-N-2a/2b, terwijl de SS-N-2c is uitgerust met (actieve) radar doelsgeleiding of (passieve) infrarood.
Voor alle drie wapens geldt de aanname dat home-on-jam geleiding kan zijn toegepast.

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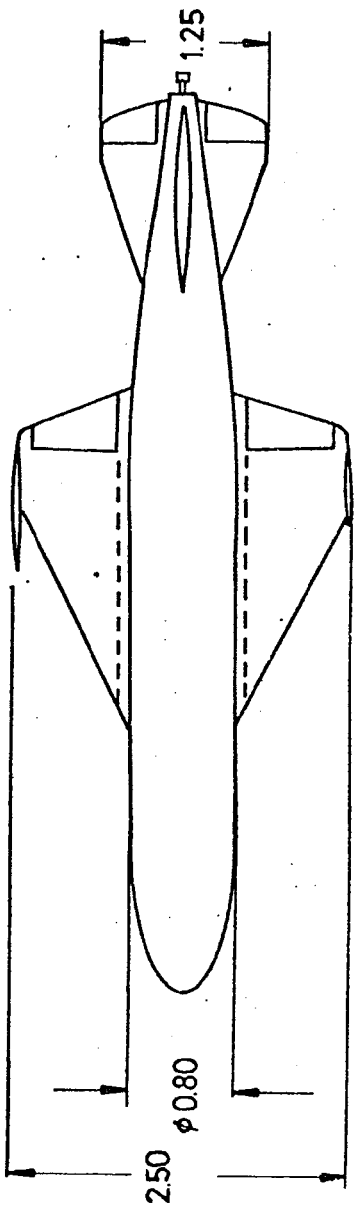
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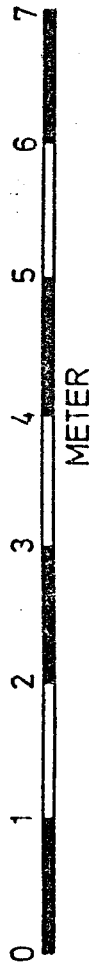
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ESM SYSTEM ON KIEV CVHG MODIFIED

38. [redacted] a. Recent information on the Soviet KIEV CVHG revealed modifications to the RUM TUB ESM system. The top radomes previously mounted on the four large port and starboard direction finding (DF) arrays have been replaced with six box-shaped devices which appear to be steerable. A single device port and starboard is mounted ataop two of the arrays; two connected, box-shaped devices are mounted atop the other two port and starboard DF arrays.

Comment: The original top radomes on the RUM TUB DF arrays were estimated to contain omnidirectional antennas used to measure threat radio frequency (RF), pulse repetition frequency, and pulse width. It was further estimated that the ESM system correlated these measurements with angle-of-arrival data derived from the DF array for threat identification and location. The original RUM TUB was estimated to operate over the frequency range 2.3 to 12.Ø GHz. The replacement of these top radomes with the box-shaped devices may indicate an extension of the RF intercept capability through at least 2Ø GHz. This extension in frequency coverage could have been implemented to provide identification of some modern threats which are operational between 12 GHz and 2Ø GHz. Because it is known that the Soviets have deployed active systems at frequencies in the 3Ø to 4Ø GHz region, the intercept coverage of these new ESM devices may be even higher than 2Ø GHz.

REVISED FORGER RADAR ASSESSMENT

b. An article in the 28 Jul 79 issue of the Soviet periodical "Vozdushnyy Transport" described a FORGER surface attack exercise mission during which the aircraft flew at minimum altitude toward a target until a "blue blip appeared on (the) course line on the screen".

Comment: [redacted] this article is very similar to a narrative that appeared earlier in the soviet periodical "trud" (jun 79) which suggested the FORGER might be equipped with a new air intercept radar. However, in view of this later article which mentions only a "screen" rather than "radar screen" and the continued lack of intelligence supporting this analysis, it is assessed that reference was being made to a probable data link type display. Additionally, the mission was directed against a probable surface target. Therefore, the FORGER's radar capability remains assessed as a "RANGE-ONLY" attack radar such as the "HIGH FIX" or possibly a new low millimeter, range-only radar.

SOVIETS APPLY OLD US DESIGN CONCEPT TO PROVIDE NEW VARIANT IFF INTERROGATOR.

39. [redacted] Recent information from the Baltic Fleet area indicates the Soviets have incorporated a 1972 U.S. design concept for the new 1.5 GHz shipborne IFF interrogator SQUARE HEAD variant. One side of the SQUARE HEAD variant retains the BOW TIE radiating elements that are used for the 668 MHz signal. The other side has been fitted with a new, one wave length long radiating element consisting of a sawtooth-shaped conductor located between two straight conductors at ground potential.

Comments: when the sawtooth element is one wave length long, as in the SQUARE HEAD variant, a broadside beam of radiation is obtained. A report on this design concept was published in open literature by the U.S. Air Force RESEARCH and DEVELOPMENT COMMAND in 1972. This technique gives the new emitter of the SQUARE HEAD variant a narrower beam width, decreasing the potential for ECM deception of the main beam.

SOVIET C3.

Inleiding.

40. [redacted] In de juni uitgave van het bekende Amerikaanse blad "Air Force" verscheen een artikel over Soviet C3a (command, control and communications), hetgeen een goed inzicht geeft over de huidige stand van zaken op dit gebied.
In een geklassificeerd commentaar, volgend op de woordelijke tekst van dit artikel, wordt nader ingegaan op enige onduidelijkheden.

Soviet command control and communications systems are flexible, survivable, and technologically advanced. Whether their "top-down" rigid structure will permit continuous operations in a hostile environment is another matter. In any case, the Soviets appear to be significantly ahead of US forces in deployed command control and communications capabilities.

SOVIET C3

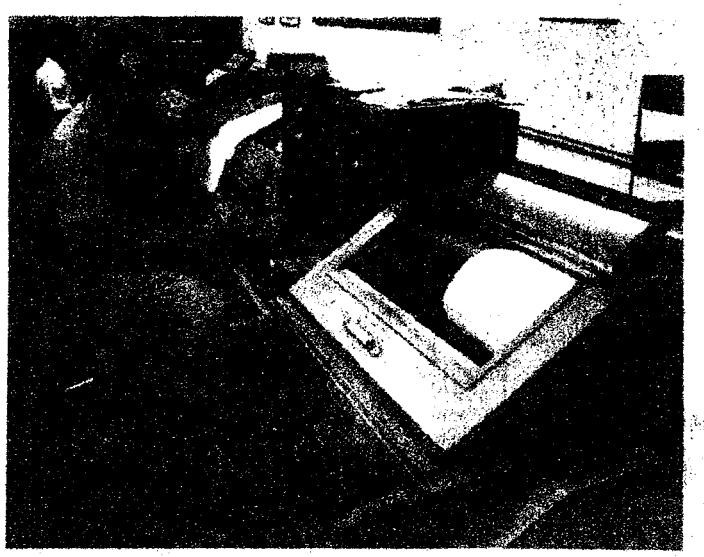
A SOVIET military analyst has observed that, in the Soviet view, there have been three revolutions in military technology since World War II: nuclear weapons, long-range missiles, and command and control. The last is in some ways the most significant because Soviet approaches to command control and communications appear to differ considerably from Western C^3 concepts and activities. Further, C^3 is one of the more difficult aspects of military power to observe. For example, unlike nuclear weapon and missile tests (and those of other hardware), C^3 activities are more easily simulated, are not always identifiable, and are sometimes simply impossible to observe or intercept.

The situation is further complicated for the West because the Soviet Union is territorially adjacent to its principal allies of the Warsaw Pact, while even its most likely objectives—the NATO nations of Western Europe and Iran (and, of course, Afghanistan)—have land borders with the Warsaw Pact or USSR. This geographic situation reduces the Soviet reliance on radio communications, permitting more use of land lines, which are more secure from both Western jamming and the possibility of interception.

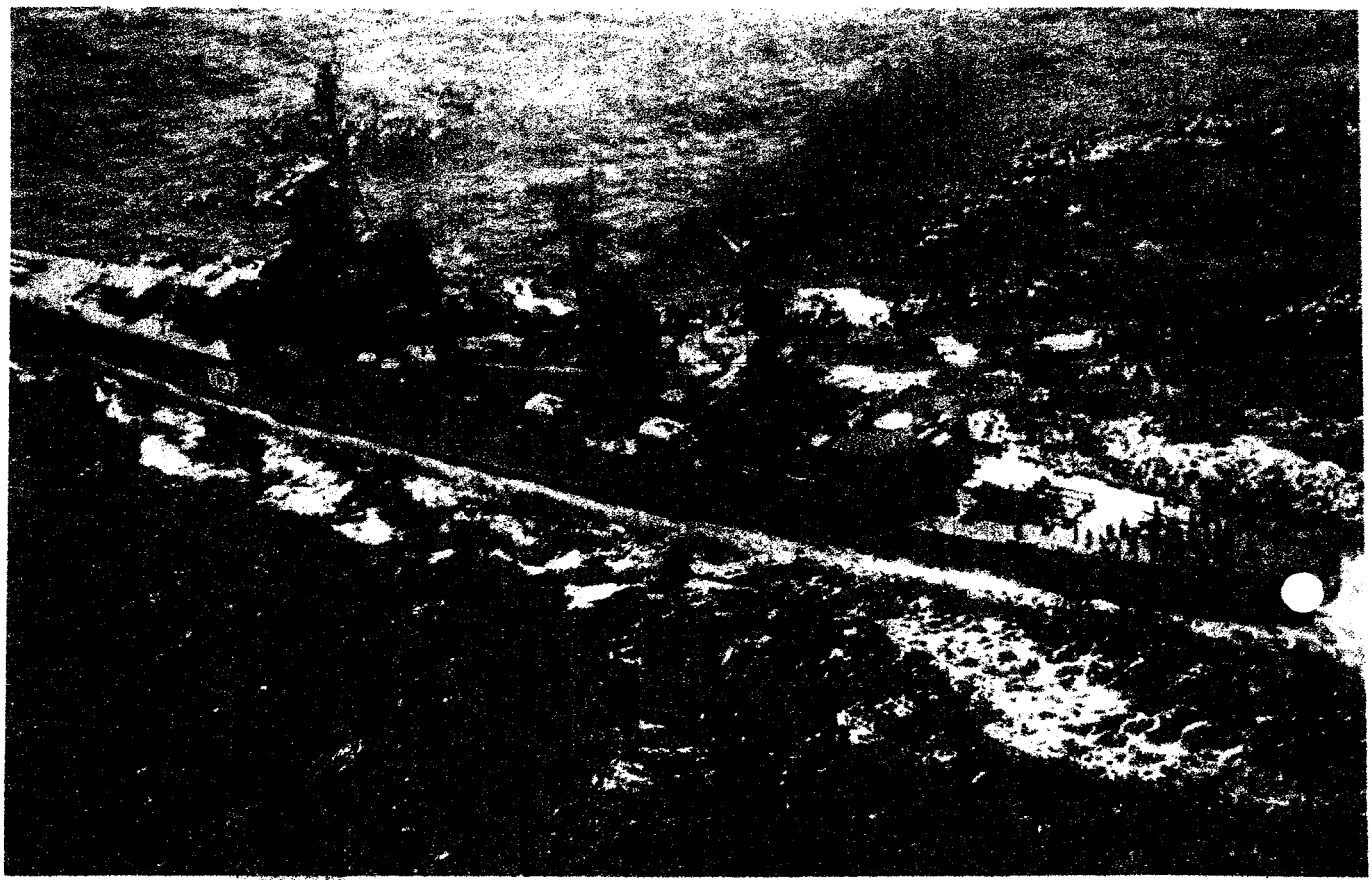
At the same time, the Soviet Armed Forces appear to plan for extensive use of jamming and intercept against Western communications. Further, Soviet tactical doctrine gives actual attacks against Western command posts and communications centers a high priority (along with strikes against Western nuclear weapon storage and delivery systems).

The Soviet Style

Soviet C^3 systems and activities are based on a "top-down" concept, with command and control highly centralized and largely directed from Moscow. The Soviet National Command Authority or NCA—to use an American term—can be considered in the context of a single individual—President of the USSR and First Secretary of the Communist Party Leonid Brezhnev.



The so-called "hot line" between Moscow and Washington was established in 1963 in the aftermath of the Cuban missile crisis. The Washington terminal is in the National Military Command Center in the Pentagon. At both ends, Soviet and US rapid teletype devices are installed side by side. The two nations alternate transmitting test messages every hour, every day of the year.



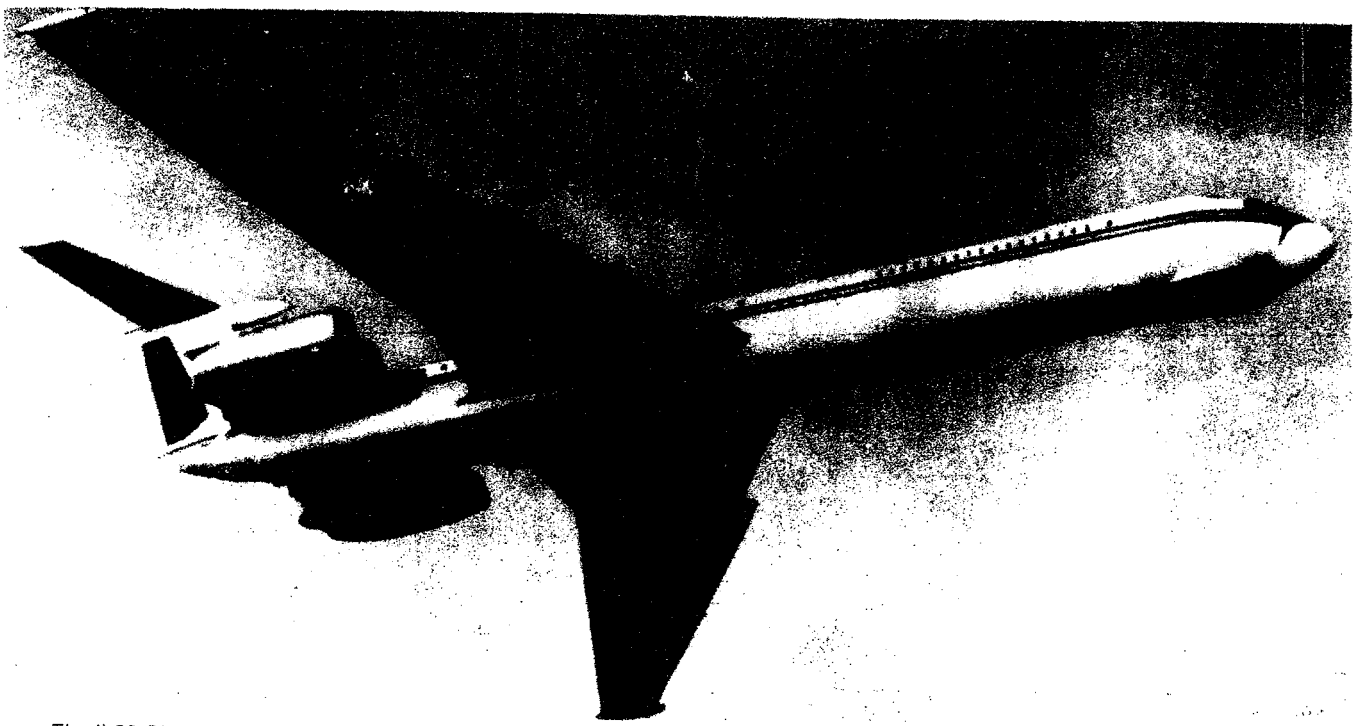
The Zhdanov, part of the Soviet Black Sea Fleet, is one of two Sverdlov-class cruisers converted during the 1970s to a flagship configuration, including extensive C³ facilities and accommodations for an admiral and his staff. Note the extensive antenna arrays on the three tripod masts, the new block-like structure aft (forward of turret), to add more C³ space and mounting for surface-to-air missiles. The other cruiser converted for this purpose is the Admiral Senyavin.

As First Secretary, Brezhnev is first among equals on the thirteen-man ruling Politburo. Today there are no professional soldiers on the Politburo, although Minister of Defense Dimitri Ustinov, longtime head of the armaments industries, like most members—including Brezhnev and Ustinov—held military ranks and served in World War II. (Two professional soldiers have been Politburo members: Marshal Georgi Zhukov for four months in 1957, and Marshal Andrei Grechko from 1973 until his death in 1976. Each served as Minister of Defense during his period of Politburo membership.)

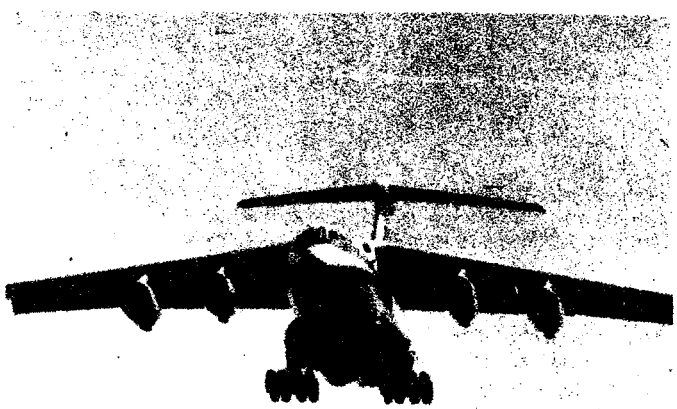
The Politburo, the most powerful organ in the USSR, is a *political* body. Brezhnev, as President of the USSR, is the Supreme Commander in Chief of the Armed Forces. Reporting to him, through the Council of Ministers, is Minister of Defense Ustinov. However, the operative military organ—and hence the Soviet "equivalent" to the American NCA—may be the Defense Council. Little is known about the Defense Council, which is a state, rather than Party, organ. It is chaired by Brezhnev with only a few other members, possibly only two, Ustinov and a political representative, also from the Politburo. The Defense Council has major responsibilities for the armed forces. While there are no professional military officers in the group, the senior officers of the Soviet Armed Forces obviously are readily available to the Council and probably provide certain staff functions, including—through the General Staff—the C³ links to major commands.

The senior defense organization is the Ministry of Defense, under Ustinov, with the General Staff providing centralized command of all Soviet military services. In addition, the Soviet General Staff appears to have operational control over operational forces except for the Warsaw Pact. That means that Soviet operations in other areas, presumably at sea and those military units in Afghanistan and Vietnam, for example, are under command of the General Staff. This is a somewhat similar concept to that of the United States, with unified commands and special forces reporting to the US Secretary of Defense and Joint Chiefs of Staff. However, unlike the JCS, which consists of almost equal representation from the various services, the Soviet General Staff is dominated by the Ground Forces (*i.e.*, Army). Within the General Staff there is a Communications Directorate (one of about a dozen major staff agencies).

Assessments of Soviet C³ at the unclassified level are difficult to achieve. A recent article in *Aerospace Daily* discussed US and Soviet capabilities based on an interview with a senior US defense official who noted that "the Soviets have a much more hierarchical" command and control structure that can be interpreted as more "orderly" than US and NATO systems. "In terms of the capability of the Soviet communications, they have perhaps gone a little further than we have," he continued, making reference also to critical shortfalls in US communications security. Asked when the United States could parallel the command and control in the Soviet OKEAN naval exercises of 1970 and 1975, the official said, "I would hesitate to put a date on it."



The Il-62 Classic and Il-76 Candid similar to those shown here have been converted by the Soviets to "flying command posts." Their markings may be as shown, or in the livery of Aeroflot, the Soviet flag carrier.



Conceptual Approaches to C³

Soviet C³ concepts are probably based on several aspects of Soviet military policy, doctrine, and tactics. These include—among others—combined arms, mass, mobility, surprise, and emphasis on the offensive. All of these impose demands on C³ systems and doctrine.

Combined arms means the operational integration of armor, artillery, and infantry of the Soviet Ground Forces, closely supported by Frontal Aviation, which is roughly the equivalent of US tactical air forces, but is operationally under the control of Ground Forces when deployed forward. This requires C³ operating doctrines and equipment to ensure that all units, regardless of type, can communicate readily on and monitor the same frequencies.

The massing of forces is a basic Soviet tenet of military operations. This could require the rapid concentration of spread-out units as well as communications with large numbers of units. Again, there are certain C³ requirements that evolve from this situation.

The high degree of mobility demanded of Soviet forces means doctrine and equipment are needed to maintain continuous C³, including communication by radio and by wire when practical while troop units are in a fluid situation.

Surprise includes several of the above constraints plus a very high degree of C³ security. That is, not only communications security, but denying an enemy knowledge about the location of one's own command and control activities.

The offensive—the key to Soviet military operations—demands C³ mobility, but also such considerations as "leap-frogging" C³ facilities to ensure that the commander who is moving forward has all needed facilities available while not disrupting on-going command control and communications activities. A recent Soviet article on communications during the 1941–45 war gives some indications of the demands placed on C³ activities during an offensive:

"During the Belorussian Operation, the headquarters of the fronts [army groups] moved to a new control facility deployment area every five days on the average, while army headquarters moved every two to three days. During the first sixteen days of the operation, the majority of army headquarters of the First Belorussian Front changed their location seven times, and the headquarters of the Third and Twenty-eighth Armies—eight times. During the same time the headquarters of the First Baltic and Third Belorussian fronts displaced three times."

Soviet records show that during the final thrusts into Germany in April 1945 the headquarters of the assaulting armies were being moved two or three times per week! Special preparations were made for these frequent

moves, such as organizing command post (CP) personnel into shifts with one shift prepared to move at all times, predesignation of equipment to be moved first, and arrangements for adequate transport. Plans called for no more than thirty to forty minutes for an army headquarters to organize and move out the signal units for setting up communications at a forward CP, and sixty to ninety minutes of warning for front (army group) communications teams to move out. The front communications centers were handling more than 5,000 messages per day during this period.

There is every reason to believe that today's Group of Soviet Forces in Germany and the forward-deployed units in the Far East would be at least as adroit in the mobility of their CPs and communications as their 1945 counterparts. Indeed, with Soviet forces committed to the same offensive strategy in the same region for three decades, there is ample evidence to support the belief that all conceptual approaches to C^3 have been executed in a highly capable manner.

The rigid top-down approach to C^3 is evident throughout the Soviet military establishment. According to a US Defense Intelligence Agency evaluation, "the Soviets regard command as the exercise of constant and effective control." Control is maintained at the highest possible level. While this limits individual unit commanders' initiative and flexibility in preplanned operations, it assures maximum possible exploitation of breakthroughs and rapid shifting of uncommitted forces.

Details about USSR top-echelon communications are sketchy. There are seventy-five hardened sites within the Moscow beltway alone for the Soviet NCA and supporting staffs, and the Armed Forces' leadership. Some of these are several hundred feet underground and are hardened to withstand 1,000 pounds per square inch of blast overpressure. (In comparison, the United States is believed to have only three or four major hardened, underground command posts with only one, Fort Ritchie, Md., near Washington, D. C.)

There are duplicate reserve command centers, also protected, for each major military service and command as well as for those subordinate units that handle nuclear weapons down to the regimental level. Of course, the latter include the launch control centers for ICBMs and IRBMs of the Strategic Rocket Forces.

Specially configured aircraft are available to the Soviet leadership in addition to fixed command centers. The Soviets fly Ilyushin Il-62 Classic and Il-76 Candid transports in what Americans call the National Emergency Airborne Command Post (NEACP) configuration. Both are modern, four-engine aircraft. Reportedly, during the late 1970s, these airborne command posts were active during crisis situations.

An unusual aspect of Soviet top-echelon communications is the so-called "hot line" between Moscow and Washington. Established in 1963 in the aftermath of the Cuban missile crisis, the hot line is intended to facilitate communications between the Kremlin leadership and the US President. (The Washington terminal is in the National Military Command Center in the Pentagon.) The Kremlin terminal uses earth satellite stations near Lvov and Vladivostok with the system using both satellite and cable routes to ensure rapid and reliable transmissions. In both the Kremlin and Pentagon, Soviet and US rapid teletype equipment are installed side by side. The two nations alternate transmitting test messages every hour, twenty-four hours a day, 365 days a year.

Norman Polmar is an analyst specializing in aviation and maritime affairs. From 1966–77, he was editor of the US section of Jane's Fighting Ships. *He is the author of* World Combat Aircraft Directory *(Doubleday & Co.),* Strategic Weapons: An Introduction *(Crane, Russak & Co.),* Guide to the Soviet Navy *(US Naval Institute Press), and several other books on defense subjects. Mr. Polmar's articles have appeared in many newspapers and magazines in the US and abroad. He has visited the USSR as a guest of the Soviet Institute of the USA and Canada and the Soviet Navy.*

At lower echelons, for example in rifle units, the battalion commander quite often controls the subordinate company radio nets. The lower-level platoon and squadron leaders use their radios primarily to receive instructions. They transmit infrequently, usually only to provide information to seniors. In tank units, ra s in other than commanders' tanks are normally operated only in the receiving mode. Platoon leaders and tank commanders are allowed to transmit only in emergencies.

C^3 Technology

Soviet C^3 activities make use of high technology systems. Adm. James L. Holloway III, the former US Chief of Naval Operations, has stated: "When you compare our navies, I do think the Soviets have an advantage over the US Navy in that they have more and better communications systems than we do. I tend to think we may be at a standoff as far as electronic warfare itself is concerned. But I give them a clear advantage in secure communications." At the same time, then-Secretary of the Navy J. William Middendorf declared, "The Soviets have the best command and control one can imagine."

"Conventional" communications equipment (*i.e.*, radio, video, data link, telegraph, and telephone equipment) in the Soviet Armed Forces incorporates many advanced technologies. However, this equipme -like much Soviet hardware in the military and civil sectors—is primitive or unsophisticated by US standards. But the Soviet equipment tends to get the job done. It is generally specialized rather than multipurpose and hence cheaper and easier to maintain; it is more rugged and less affected by weather than Western equipment; and it requires less sophisticated checkout and support equipment. These characteristics are even true of some advanced C^3 systems, such as computers and satellites.

Also, Soviet civilian communication systems, for example, are designed from the outset to be compatible and integrated with military systems, providing rapid wartime conversion, similarity in personnel training, cost benefits in providing maintenance and parts, etc. The contrast to US commercial communications systems is obvious, with neither design nor existing usage policies facilitating their use by the military. In the same way, almost all Warsaw Pact communications equipment is of Soviet design, and hence inter-army compatible. Some NATO nations have *similar* equipment, but nothing close to the degree of Warsaw Pact compatibility.

The Soviet Armed Forces have widely adopted "mathematical" support and "cybernetics" in C^3 activities. Mathematical support consists of operations research and electronic computer technology being introduced "into the working practice of control entities at all command echelons."

According to Soviet papers on the subject, *prior* to forces performing a mission, mathematical support can substantiate variants of a decision with any amount of detail, thus giving a commander a better understanding of possible courses of action and their effect. During the execution of a mission, mathematical support of command and control can perform calculations for correction or for making new decisions.

Cybernetics, the study of control and communications as they relate to the interface between man and machines, has led to many reductions in time-consuming computations and decision-making processes. The Soviets took the initiative in this field with respect to military use, with the late Engineer-Admiral Askel' Berg being internationally recognized as a leader in this field.

The principal area of computer support to C^3 is in the Air Defense Forces (PVO-Strany) for early warning and control. But computers for C^3 have more recently been identified at lower and more diverse commands, including at sea aboard cruisers, primarily for the coordinated direction of antisubmarine and, possibly, antiair warfare.

The computer field is one in which Soviet technology has evidenced shortcomings. The superiority of US computer technology is generally acknowledged, with the Soviets purchasing Western computers for civil and military application. But superior computers do not automatically confer superior C^3; the US World-Wide Military Command and Control System (known by the acronym WWMCCS—pronounced "wimex") makes extensive use of computers but still does not function properly.

A senior US defense official notes that the United States still leads in the automated control of combat forces, but adds, "The Soviets are placing emphasis on this area."

Satellite Systems

Satellites are one of the more important components of modern Soviet C^3 activities. The USSR, which launched the first, and the first large-payload, earth satellites in 1957, uses satellites in eight mission areas related to military operations: general research, including weather reporting; navigation; mapping; communications; sensors, including ocean tactical surveillance and strategic warning; weapons guidance; weapons delivery, such as the Fractional Orbital Bombardment System (FOBS); and antisatellite systems.

The predominant communications satellites for military C^3 are the Molniya series. The Molniya I system became operational in the mid-1960s, followed by Molniya II and III. These satellites have highly elliptical twelve-hour orbits. The improved Molniya I-S has a twenty-four-hour synchronous orbit. (The Molniya III is used in the Moscow–Washington hot-line link, as is the US Intelsat IV.)

Of course, "civilian" communication satellites in the USSR do not exist in the sense they do in the United States because of military control or at least influence in the development of all civilian systems using advanced technology. As with the Soviet radio-television-telegraph operations, it seems probable that the civilian satellites are fully compatible with military systems and are included in military contingency planning. Conversion from civilian to military use is further facilitated by the large number of reserve and active military officers in the civilian communications organizations.

The quality of Soviet satellite systems is difficult to ascertain on an unclassified basis. In 1978, the US Under Secretary of Defense (Research and Engineering), Dr. William J. Perry, stated that: "US space-based systems are generally superior in performance to their Soviet counterparts across the board, although the Soviets lead in deployed radar surveillance from space, and may be closing the gap in operational missile-detection capabilities. The Soviets have in fact attempted to compensate for limitations in the performance of their satellites by launching a greater number of vehicles."

The Soviet space program—including those satellites that support military C^3—has shown continued qualitative improvement as well as quantitative leadership over the United States. For example, during 1979 the Soviet Union had eighty-seven successful space launches, of which most were primarily military in nature; the United States had only sixteen successful launches, with relatively few military payloads. Qualitative improvements have resulted in a Soviet failure rate for space boosters of under ten percent since 1970. However, one of the most troublesome Soviet boosters has been the Proton, used to launch man-related flights and synchronous orbit communications satellites.

Like other aspects of military C^3 and anti-C^3 activities, space offers many opportunities, and the current Soviet thrusts in this direction indicate a thorough understanding of the opportunities and the vulnerabilities of space-related command control and communications.

C^3 Survivability

All Soviet military C^3 systems are developed and deployed with considerable emphasis on survivability—much more than comparative Western systems. Dr. Perry has observed that, compared to US C^3, the "Soviets have an advantage in the survivability of C^3 systems and installations against physical and jamming attack." The Soviets seek to achieve survivability through concealment, dispersal, hardness, mobility, and redundancy.

Concealment is practiced at all levels of C^3 activities. Drawing on World War II experience for lessons for the future, Marshal of Signal Troops I. Peresyfkin, the senior Red Army communications officer, writes that during the 1941–45 war "the commanding generals of large strategic formations constantly devoted attention to communications center field fortifications, camouflage, security and defense, as well as restricting the number of persons with knowledge of their location."

These measures appear to be in use today. Marshal Peresyfkin also notes that "communications center equipment at the front CP was . . . carefully camouflaged; special trucks and vehicle-mounted radio sets were positioned in open pits and carefully camouflaged, internal telephone communications cables were laid in special trenches and covered with turf. . . . The com-

manding general of the front was constantly assigning special aircraft to inspect the control facility sites and their camouflage, with the pilots reporting back to the commander. . . . Deficiencies noted from the air were immediately corrected."

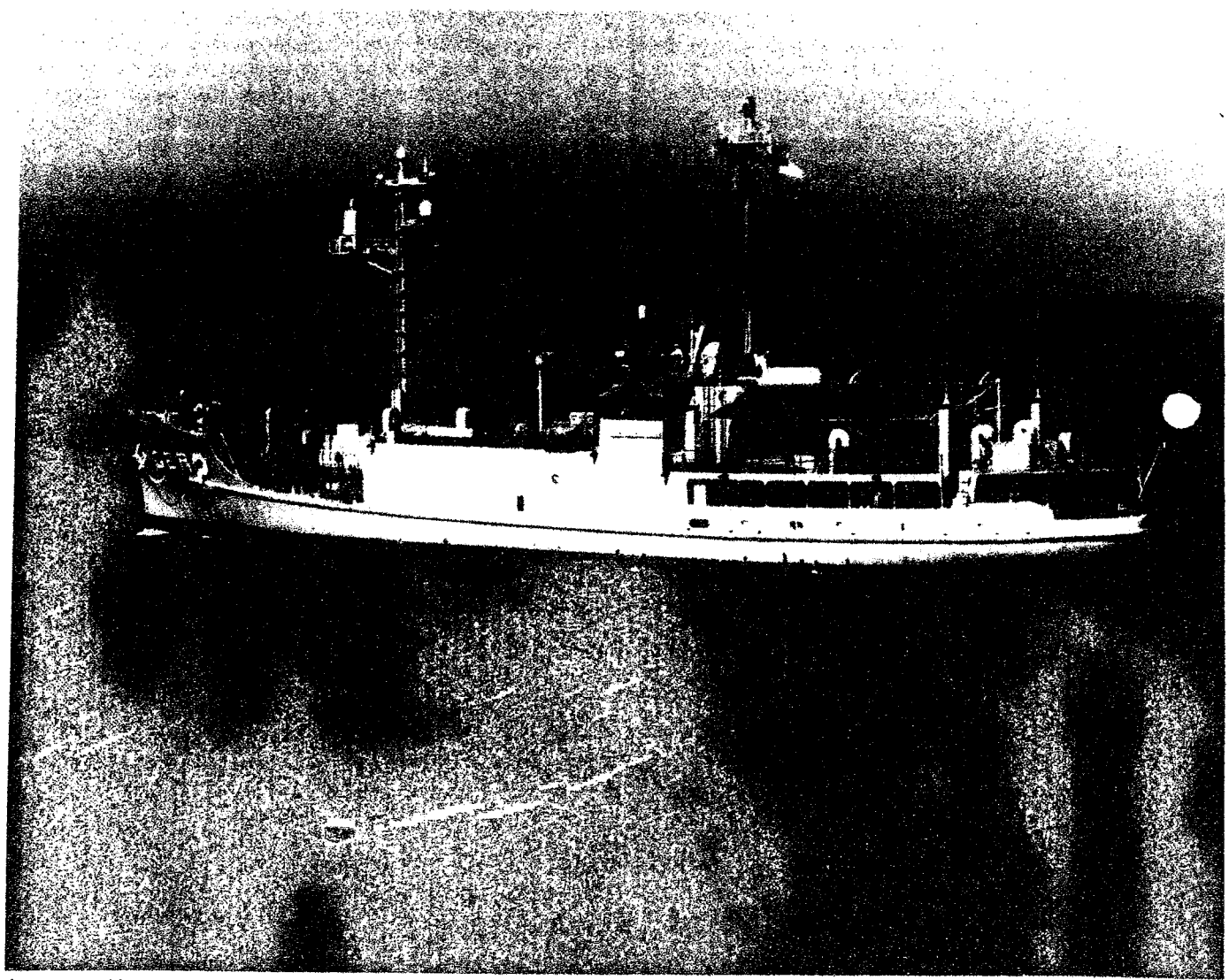
Dispersal is provided in Soviet military C^3 by several means, including redundancy (*see below*). The dispersal requirement means an increase in communications equipment and personnel requirements, as well as forces for physical security of C^3 facilities. The Soviets are willing to pay the price.

Hardness—for survivability against nuclear and chemical weapons as well as conventional ones—is found at many levels on Soviet C^3, especially for commanders of large troop formations, and for virtually all units that have or control nuclear weapons.

Mobility is similarly provided at all echelons of Soviet C^3, to some extent as an alternative to hardness, as the Soviets tend to provide for all aspects of survivability. At the highest levels of command are aircraft configured for the NEACP role. In the Navy, mobility is provided, in part, by two large (19,200-ton) cruisers, the *Zhdanov* and *Admiral Senyavin*, that have been specifically converted to provide working spaces, communications, and accommodations for a senior admiral and his staff. These ships can provide C^3 facilities for the direction of complex, large-scale military operations in areas distant from the Soviet Union.

Within Soviet Ground Forces, there are extensive mobile C^3 facilities, designed to provide troop commanders with full capabilities as their units move forward on the offensive. In this regard, Soviet signal units are equipped to rapidly lay wire to provide advancing commanders with hard-wire telephone and telegraph services as well as the use of radio. Mobile communications are provided in some instances up to the level of the front (army group) commander. These include their own power generators as well as radio and wire communications equipment.

Redundancy is provided at all echelons of command. All major commands and units operate a main command post and a rear CP, with both having similar capabilities and both maintaining a full "plot" of the situation. In addition, some commands have alternate communications centers a few miles from the main communications facility at the CP, "capable of fully replacing the principal facility if necessary," according to Soviet literature.



Soviet anti-C^3 activities have been aided by the North Korean capture of the intelligence ship USS Pueblo (GER-2) in 1968 and large amounts of communications and cryptologic equipment when South Vietnam fell in 1975

Again, the cost in equipment and personnel is considerable.

To the extent possible, duplicate communications nets—radio and wire—are established to provide physical, jamming, and intercept survivability.

Communications Security

A related aspect of Soviet C^3 survivability is communications security (COMSEC)—caution in what is transmitted, when, and where. Lack of COMSEC was a major factor in the heavy Russian losses to the Germans in World War I. In the key Tannenberg campaign of August–September 1914, the Russians were completely routed by smaller German forces that were kept fully informed of Russian radio messages transmitted in the clear. The Tsarist officers, with limited knowledge and interest in radio communications, had a total disregard for communications security, while the German leadership was keenly aware of the value of both radio security and intercept.

Radio (and radar) silence is rigidly enforced in the Soviet Armed Forces. Transmissions are used astutely with the maximum use being made of prior coordination and visual signals. Most significant, the Soviets can make extensive use of internal, secure land telephone lines within the USSR and Eastern Europe prior to the start of an offensive against China or Western Europe. Here again, this contrasts with the US military forces in Europe that are forced to rely almost exclusively on radio and tactical wire communications.

At all levels of Soviet military endeavor—but especially C^3 activities—secrecy prevails. Marquis de Custine in the last century, the New York *Times's* former Moscow correspondent Hedrick Smith in our own time, and scores of observers in between, have marveled at the Russian obsession with secrecy. This attitude toward secrecy and deception is deeper rooted than most Westerners comprehend—and is directly applicable to military communications.

Anti-C^3 Operations

These efforts to enhance C^3 survivability in part are a reflection of the importance the Soviet Armed Forces place on attacking enemy C^3 activities at the outbreak of a conflict. Former US Secretary of the Air Force Thomas Reed, who earlier had been the Defense Department's Director of Telecommunications and Command and Control Systems, has stated that, "in view of our extreme dependence upon communications and radars, I believe we must take the Soviet EW [electronic warfare] threat very seriously. They carefully worked out a plan designed to 'divide and conquer' by denying our eyes and ears, and then overrunning a disorganized and uncoordinated NATO defense."

More recently, William Schneider, the astute aide to Congressman Jack Kemp, has pointed out the "double irony" of the situation: "The United States has not only failed to fully exploit electronics as an instrument of warfare, but has allowed its entire concept of operations to revolve about a highly sophisticated and centralized scheme of command that depends heavily on radio-communications (*i.e.*, voice, teleprinter, and data) with deployed forces.

"The Soviets," continues Schneider, "apparently recognizing this high degree of centralization, have developed a scheme of electronic warfare that threatens the ability of the US [commanders] to successfully communicate with their forces deployed in the field due to Soviet electronic warfare tactics."

Writing in late 1979, Mr. Schneider pointed out that the United States continues to lack a doctrine adequate to the magnitude of the problem and risks "catastrophic failure because of the [US] inability to communicate successfully during combat operations."

The Soviet anti-C^3 planning is considerable, with many units and weapons targeted against communications centers. Beyond that, there are major jamming systems plus the development and deployment of antisatellite systems, aimed at US communications as well as reconnaissance satellites.

Soviet anti-C^3 activities have been aided by the capture of the intelligence ship *Pueblo* by North Korean forces and the availability of probably a large amount of US communications and cryptologic equipment when South Vietnam fell. Of course, the long and intensive US participation in the Vietnam War provided the Soviets with an excellent laboratory in which to observe US command and control activities at various levels. Only in the Soviet assaults on Czechoslovakia in 1968 and Afghanistan in late 1979 has the United States had an opportunity to observe Soviet C^3 activities under combat conditions (but without the capture of, and hence access to, Soviet equipment).

Summing Up

C^3 represents one of several critical military areas in which the USSR has devoted considerable resources, both to develop its own C^3 and to develop the means of disrupting allied C^3 activities. In both respects the Soviets appear to be significantly ahead of US forces in most deployed capabilities.

The Soviets do lag behind the United States in several technologies, among them data communication links, automated control of combat forces, and satellite performance. But the Soviets are making strides in all of these areas.

Perhaps the most significant Soviet C^3 shortfall is the vulnerability that their culture has given them. Adm. Stansfield Turner, the Director of Central Intelligence, has observed: "The Soviets have a command structure that goes all the way up the line and is very tightly controlled because of the different kind of society that they live in. If we can break their command structure in an early stage of a war, they probably are less flexible in responding, though they do, in contrast to that, have more redundancy in their system than we do. They probably have more alternate command structures. But I suspect the individual—to put it in my own terms—ship captain out at sea is on a much tighter tether than would be ours."

But the systems operational concepts and tactics must be developed to interrupt this Soviet command structure, while at the same time US C^3 activities must be made more secure against Soviet interception, deception, jamming, and destruction. US progress in this direction has been slow, frighteningly slow. ■

AANTEKENINGEN BIJ HET ARTIKEL SOVIET 03.

41. [redacted] In het artikel wordt gewag gemaakt van het op regeringsniveau aanwezig zijn van een "Defense Council". Terecht wordt hier de uitspraak gedaan dat dit college weinig bekendheid geniet. De vergelijking met het Amerikaanse equivalent de "National Command Authority" gaat niet op; dit Sovjet orgaan bestaat alleen terwille van propaganda en voor publieke consumptie. Het werkelijke executieve orgaan op het hoogste level dat in eerste instantie de verantwoording draagt voor de verdediging van de Sovet Unie berust bij een "Militair Comité", onderdeel van het politburo. Van dit Militair Comite maken 5 personen deel uit, alle politburoleden t.w.:

Secretaris generaal en voorzitter van de Sovjet Communistische partij, (L.I. Breshnev),
Voorzitter van de raad van ministers van de Sovjet regering (Kosygin), [redacted]
De minister van het ministerie van Defensie Ustinov,
De minister voor Militaire Industrie, De voorzitter van de KGB, (Andropov).

42. [redacted] De titel: "Supréme High Command", is slechts van toepassing op een concrete oorlogssituatie, eveneens als dit het geval is met de "Supréme commander".
Supreme commander in chief of the Armed Forces, de titel waarmede Breshnev wordt aangeduid, is een nietszeggende titel.
Het is denkbaar dat bij een nieuwe oorlogstoestand het opperste oorlogsgezag weer wordt belichaamd in een "Sovjet State Committee for Defence" (GKO) zoals dat tijdens WW II geschiedde Stalin formeerde dit comité pas veel later, nadat de oorlog was uitgebroken en verenigde daarmede partij, industrie en staatsorganen in één bundeling van krachten, gericht op het verslaan van de usurpator.

43. [redacted] In vredestijd worden alle belangrijke militaire beleids beslissingen voorbereid door de Generale Staf waarin alle strijdkrachten zijn vertegenwoordigd. Opdrachten worden echter door of namens de Minister van Defensie gegeven; uit het organigram blijkt dat de Generale Staf op hetzelfde niveau staat als de diverse opperbevelhebbers van de Strategische raketten, de grondstrijdkrachten, de marine, de luchtstrijdkrachten, de luchtverdediging en de Sovjet strijdkrachten in Oost-Duitsland. (Deze gezagsverhoudings is weergegeven in fig. 1),

44. [redacted] De ervaringen van de Tweede Wereldoorlog leren dat bij het lang voortbestaan van de staat van oorlog in Sovjet Rusland, een opperste militair gezagsapparaat wordt ingesteld, de zgn. "Stavka". Dit wordt veelal vertaald als "hoogste staf" of "oorlogsstaf". Dit is niet geheel juist, de Stavka mag niet als een consultatief optredend orgaan worden gezien maar is integendeel belast met de algehele directe militaire leiding, in opdracht van het politburo. Gezagsdragers die organiek hierin zitting zullen nemen zijn niet bekend. Het is wel bekend dat de minister van Defensie en de Chef van de Generale Staf hiervan deel zullen gaan uitmaken. (Voor een gezagsverhouding zoals die in oorlogsomstandigheden waarschijnlijk zal ontstaan, zie fig. 2).

NIEUWE SOVJET ONDERZEEBOOT.

45. [redacted] a. Amerikaanse persberichten maakte recentelijk melding dat in het Noordelijke Vlootgebied een nieuwe Sovjet onderzeeboot van uitzonderlijke afmetingen was waargenomen. De afwezigheid van verticale lanceerbuizen elimineerde de mogelijkheid dat hier sprake was van de introductie van een nieuwe klasse strategische ballistische projectieonderzeeboot.
Gespeculeerd werd op een transportrol van deze onderzeeboot die, niet gehinderd door ijsgang in de Noordelijke wateren, een belangrijke rol bij de openlegging van Siberisch Rusland zou kunnen spelen.

[redacted] b. Geklassificeerde informatie daarentegen bevestigt nu het bestaan van een nieuwe Sovjet klasse, nukleair voorgestuwde geleide wapen onderzeeboot (SSG(N)) die in het Noordelijke Vlootgebied te Severodvinsk geconstrueerd - in april j.l. te water werd gelaten. De waterverplaatsing aan de oppervlakte wordt voorlopig geschat op 9-11.000 ton; onderwater lijkt deze onderzeeboot 12-14.000 ton waperverplaatsing te hebben. De afmetingen van zes waarneembare lanceercompartimenten, die zich aan bak- en stuurboord bevinden, laten een mogelijk totaal te lanceren hoeveelheid van 24 kruisraketten toe. Naast de onderzeeboot, op de kade opgenteld, kon een "missile loading tray" worden waargenomen, een instrument dat in gebruik is bij het laden van een nieuwe Sovjet kruisraket, voorlopig aangeduid als "SS-NX-19 cruise missile" (SS-NX-19 bewapening wordt eveneens aangetroffen op de BAL-COM-1 nukleaire kruiser die eind mei voor het eerst buiten de scheepswerf te Leningrad is waargenomen. Het schootsbereik van de SS-NX-19 is naar schatting maximaal 400 zeemijlen.)

Figure 1

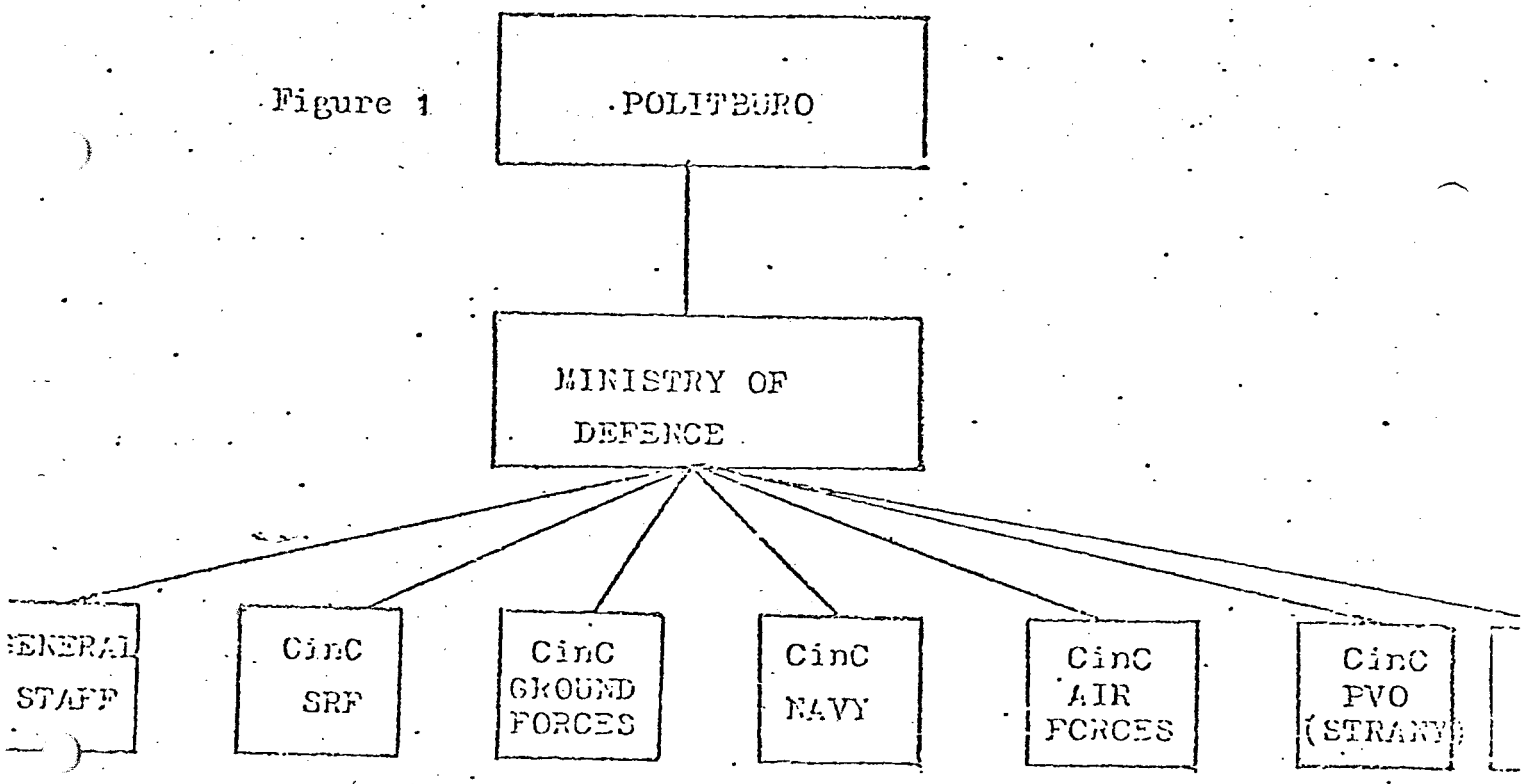
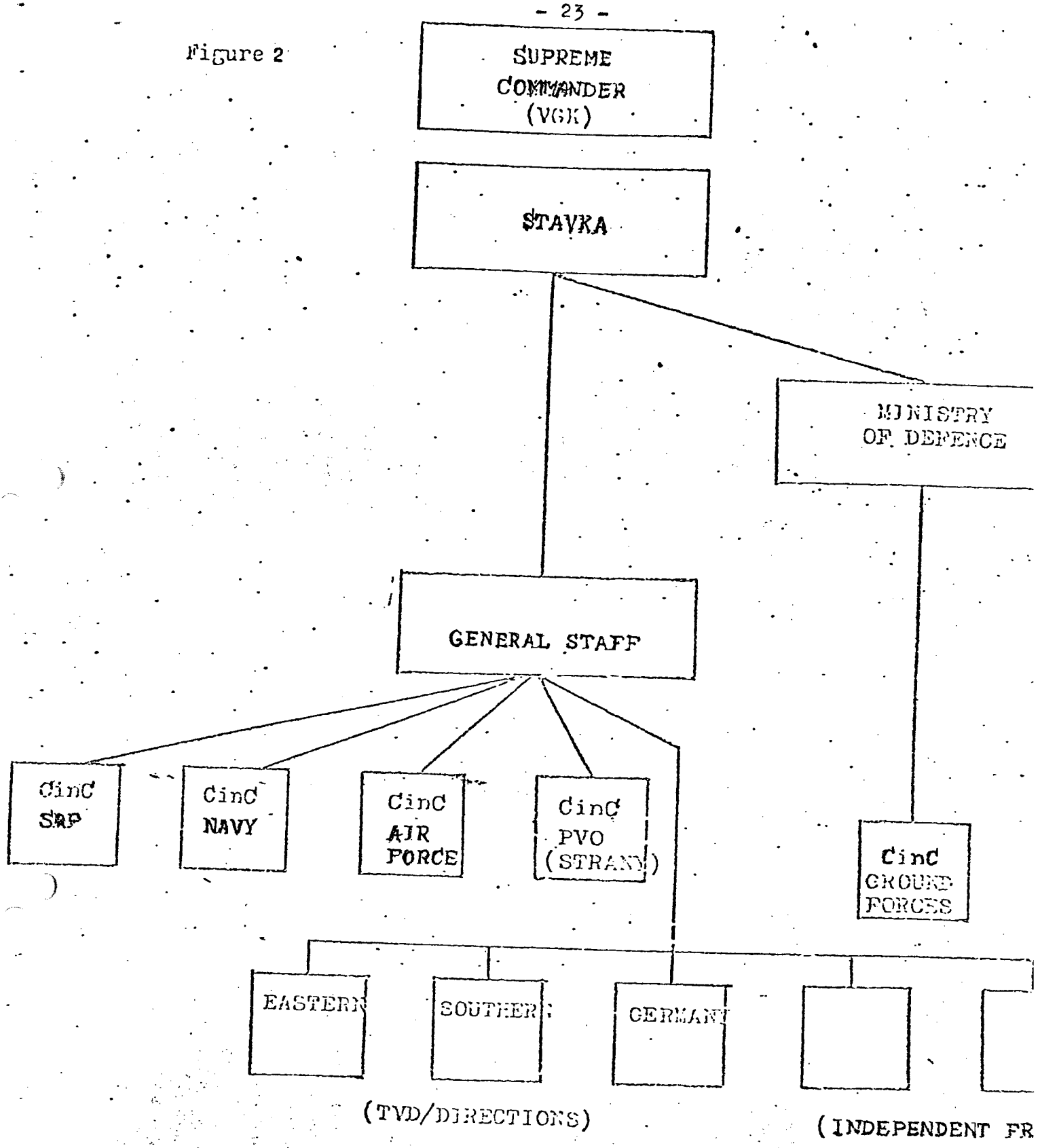

POLITBURO
MINISTRY OF DEFENCE
GENERAL STAFF
CinC SRF
CinC GROUND FORCES
CinC NAVY
CinC AIR FORCES
CinC PVO (STRANY)

Figure 2


SUPREME COMMANDER (VGK)
STAVKA
MINISTRY OF DEFENCE
GENERAL STAFF
CinC SRF
CinC NAVY
CinC AIR FORCE
CinC PVO (STRANY)
CinC GROUND FORCES
EASTERN
SOUTHERN
GERMANY
(TVD/DIRECTIONS)
(INDEPENDENT FR

HOOFDSTUK 2.

SOVJET MARITIEME AKTIVITEITEN

DE ATLANTISCHE OCEAAN/OOSTZEE

Algemeen.

1. [redacted] De oefenaktiviteiten van Sovjet marine-eenheden in de lokale wateren van het Noordelijk Vlootgebied en in de Oostzee waren intensief gedurende de maand juni. In het Noorden vonden "live-missile firings" plaats, "coastal defence"-oefeningen en ASW-oefeningen. Bij enkele aktiviteiten was het vliegdekschip Kiev betrokken.
In de Oostzee en ook daarbuiten waren de gezamenlijke WP oefenaktiviteiten opvallend, met name de "show of solidarity" in het Noordelijk gedeelte van de Noordzee.
In de maand juni werd een aanvang gemaakt met de jaarlijkse trainingscruises door opleidingsvaartuigen.
Aan het eind van de maand opereerde een Sovjet verband, waarbij de helikopterkruiser Leningrad, in de Atlantische Oceaan. In 1974 was de Leningrad voor het laatst aldaar waargenomen.

2. [redacted] Op 28 mei verlieten een aantal W.P. eenheden de Oostzee, terwijl ook een aantal Sovjet combattanten de wateren van de Noordvloot verlieten. Uit de Oostzee kwam een "logistieke groep" die bestond uit de Sovjet-tanker Olekma, een Pools bergingsschip (Piast 281) en een Oost Duitse tanker (genaamd Poel). Bovendien verliet een "aanvalsgroep" de Oostzee bestaande uit een Sovjet MOD KASHING-klasse GW jager (449), waarop vermoedelijk een vice-admiraal was geembarkeerd, een Poolse SAM KOTLIN-klasse jager (275) en een Oost-Duits KONI-klasse fregat (141). Opmerkelijk is de samenwerking van deze groepen aangezien dit de eerste keer betreft dat een gecombineerd WP marine eskader buiten de Oostzee opereert. Mogelijk moet e.e.a. worden gezien als een "show of solidarity". De eenheden begaven zich op weg naar de Noordzee.

Opvallend was de betrokkenheid van een WHISKEY-klasse onderzeeboot die doorgaans ten westen van Engeland een patrouille uitvoert. Haar aanwezigheid deed vermoeden dat mogelijk onderzeebootbestrijding werd beoefend.
Op 28 mei verlieten eveneens een 3-tal Sovjet combattanten de locale wateren van de Noordvloot. Het betrof een KRESTA II-klasse GW kruiser (690), een SAM KOTLIN-klasse jager (454) en een MOD PETYA: I-klasse fregat (951). Beide laatstegenoemde eenheden zijn voorzien van een bijzonder accoustisch onderzeeboot detectiesysteem (towed array system), welke vermoedelijk werd uitgetest, nabij de Lofoten. Vermoedelijk waren een 2-tal onderzeeboten bij deze aktiviteiten betrokken w.o. mogelijk een CHARLIE of VICTOR/ en een ECHO-klasse nucleare onderzeeboot.
Een aantal vluchten van Sovjet marineluchtmacht eenheden zouden met genoemde aktiviteiten in verband hebben gestaan.
Deze vluchten werden uitgevoerd door BADGER bommenwerpers en MAY-onderzeebootbestrijdingsvliegtuigen. Op 31 mei en 1 juni was een Hormone B helikopter aktief ten noord-westen van de Lofoten. Zij was afkomstig van de KRESTA II-klasse GW kruiser (690). Opvallen was een op 2 juni uitgevoerde vlucht van 2 BEAR-DELTA lange afstandsverkenningsvliegtuigen die eveneens in het nordelijk gedeelte van de Noordzee opereerden, hetgeen sedert 1979 niet meer heeft plaatsgevonden.

(Zie de situatieschets).

3. [redacted] <u>BAL-COM-1</u>
Gedurende de periode 23-27 mei werd het eerste nucleair voortgestuwde Sovjet bovenwaterschip in de Golf van Finland waargenomen, waarna wederom werd teruggekeerd naar Leningrad. Een eerste analyse van BAL-COM-1, geeft aan dat de totale lengte van het schip ongeveer 244 m bedraagt (waterlijn ongeveer 220 m).
Een eerste inzicht v.w.b. de bewapening van dit schip duidt op uitgebreide onderzeebootbestrijding-, anti-lucht en anti-oppervlaktebestrijdingsmogelijkheden, terwijl de nucleaire voortstuwing het schip in staat stelt langdurig en overal ter wereld te kunnen opereren.

4. (G) In de Oostzee werden op grote schaal amfibische oefeningen uitgevoerd door Sovjet, Poolse- en Oost Duitse eenheden.

Begin van de maand juni werd door Poolse eenheden een gezamelijke marine-landmachtoefening uitgevoerd waarbij het accent lag op het element embarkatie/debarkatie van een amfibische opwerkprogramma. De defensiecommissie van het Poolse parlement was bij enkele oefenaktiviteiten aanwezig. Midden juni werd aangevangen met een grootscheepse Sovjet,-Poolse-en Oost-Duitse amfibische oefening die door de commandant van de Sovjet Oostzeevloot werd waargenomen. Een dergelijke grote amfibische oefening werd voor het laatst in 1978 uitgevoerd. in de periode eind juni - begin juli.

5. [redacted] Op 12 juni bevond een Pools POLNOCNY-klasse landingsvaartuig zich in de Deense territoriale wateren. Nadat een Deens schip zich naar de POLNOCNY begaf, verliet de POLNOCNY de Deense wateren doch echter via een lange, ongebruikelijke route.

6. [redacted] Op 22 juni bereikte de helikopterkruiser Leningrad (MOSKVA-klasse) de Atlantische Oceaan, komende uit de Middellandse Zee. Zij werd begeleid door 2 Oostzee KRIVAK-klasse GW-fregatten (700, 710) en de tanker Lena die op 21 juni bij Tofino Bank voor bevoorrading zorgd. De beide KRIVAK's waren in de maand april eveneens bij oefenaktiviteiten betrokken met het vliegdekschip Kiev. De Leningrad heeft niet meer op de Noord-Atlantische Oceaan geopereerd sedert OKEAN '70. In 1974 liep de Leningrad eveneens de Atlantische Oceaan binnen maar zette toen koers naar de Indische Oceaan waar zijn van 7 juli - 26 oktober verbleef i.v.m. mijnenveegoperaties in de Rode Zee.
Tijdens OKEAN '70 begaf zij zich naar het Noordelijk vlootgebied waar zij ruim 2 weken verbleef voordat naar de Zwarte Zee werd teruggekeerd.
De eenheden begaven zich met een Westelijke/Noor-Westelijke koers op de Atlantische Oceaan naar een gebied,dat geheel afwijkt van de normale opmarsroute,naar het Noordelijke gedeelte van de Atlantische Oceaan. Mogelijk zullen de eenheden bij de Azoren gaan oefenen; waarna een transit van de Leningrad naar het Noordelijk vlootgebied niet geheel moet worden uitgesloten.

7. [redacted] In het Zuidelijk gedeelte van de Atlantische Oceaan is in de maand juni een MOD Kildin-klasse jager (366) afgelost door een KANIN-Klasse GW jager (627). De MOD Kildin bevond zich bijna 8 maanden in dit gebied, hetgeen langers was dan meestal het geval is.

Midden juni opereerden er minder onderzoekingsvaartuigen in de Zuid Atlantische Oceaan dan gemiddeld.
Midden juni opereerden 7 eenheden voor de kust van Guinea (Conakry), w.o. een NATYA-klasse mijnenveger (825), een MOD KILDIN-klasse (366) en haar aflosser een KANIN-klasse GW jager (627), een AMUR-klasse reparatieschip (PM-81) die doorgaans stationair ligt bij Luanda (Angola), alsmede enkele hulpvaartuigen. Op dat moment waren geen Sovjet eenheden in Luanda aanwezig, hetgeen nogal ongebruikelijk is.

DE MIDDELLANDSE ZEE

Algemeen

8. Het aantal aanwezige Sovjet combattanten in de maand juni was over het algemeen hoger in vergelijking met vorig jaar. Het aantal oefeningen dat werd uitgevoerd was echter niet groter dan voorheen. Eenheden van het SOVMEDRON hielden zich naast deze oefenaktiviteiten bezig met o.a. surveillance op de oefening "Trident" 80 in de Centraal Ionische Zee en op de Turkse oefening "Sea Wolf". Bovendien werd door een tweetal SOVMEDRON- eenheden met een onderzeeboot een bezoek aan Annaba (Tunesië) gebracht. De vaste patrouilles werden bezet en in Bizerta, Tivat, Syros en Tartous werd onderhoud ondergaan. Opmerkelijk was de gezamelijke Sovjet-Bulgaarse ASW-oefening aan het einde van de maand.

9. In de periode 15-21 juni opereerde de helikopterkruiser Leningrad (MOSKVA klasse) in de Middellandse Zee na een 20-dagen durend verblijf in de Zwarte Zee, waar vermoedelijk klein onderhoud werd ondergaan. De Leningrad werd begeleid door een MOD KASHIN klasse GW jager (706). Beide eenheden begaven zich op weg naar het Westelijk gedeelte van de Middellandse Zee waarbij onderweg op geringe schaal werd geoefend. Op 22 juni werd de Atlantische Oceaan bereikt.

10. Op 2 juni werd door een 6-tal fregatten w.o. van de KRIVAK klasse (700, 710), GRISHA klasse (096, 098), PETYA klasse (833) en MIRKA klasse (824) een onderzeebootbestrijdingsoefening uitgevoerd ten Zuidwesten van Kreta, waarbij vermoedelijk 2 Sovjet onderzeeboten waren betrokken. Het aantal deelnemende fregatten was ongebruikelijk hoog.

11. (●) Onlangs werden in de Golf van Sollum twee oranje fluoriserende boeien waargenomen. De boeien bevonden zich 500 m van elkaar. Dit betrof de eerste keer dat "mooring buyos" in deze ankerplaats zijn waargenomen sedert maart j.l. Later werden de boeien niet meer waargenomen omdat zij mogelijk i.v.m. reparatie tijdelijk waren verplaatst.

12. (●) Twee Lybische amfibische vaartuigen (IBN Ouf (132) en Haritha (134) maakten een soort "trainingscruise" door het Centraal en Westelijk gedeelte van de Middellandse Zee, waarbij onderweg een groot aantal havens werd bezocht waaronder Algiers (Algerije) van 6 - ± 9 juni en Bizerta (Tunesië)

13. (●) Twee Oostzee KRIVAK-klasse GW fregatten (700, 710) met een tanker en een FOXTROT-klasse onderzeeboot brachten in de periode 11 - ± 15 juni een bezoek aan Annaba (Algerije), waarvoor het laatste in september 1978 een bezoek van deze omvang werd gebracht door een KYNDA-klasse GW kruiser (120) en een KARA-klasse GW kruiser (716). Vorig jaar werd Anaba voor het eerst door 3 combattanten bezocht t.w. 1 GRISHA-en 2-MIRKA-klasse fregatten.

14. (●) Thans bevinden 2 kabelleggers (KIL-31 en KIL-29) zich bij het eiland Syros (Griekenland). KIL-29 krijgt aldaar sedert 9 april onderhoud welke vermoedelijk binnenkort wordt beëindigd, terwijl KIL-31 sedert 10 juni aanwezig is om onderhoud te ondergaan.
De langste onderhoudsperiode voor een Sovjet vaartuig bedroeg ongeveer 4 maanden.

15. (●) Op 17 juni bereikten twee Bulgaarse RIGA klasse fregatten (ex. Sovjet) (Druzki en Smeli) met een tanker de Middellandse Zee op weg naar de ankerplaats Kithera. Vermoedelijk hebben sedert1972 geen Bulgaarse combattanten meer in de Middellandse Zee geopereerd. Op 20 juni vond ten Zuiden van Kreta een rendez-vous plaats met een Sovjet KASHIN en MOD KASHIN-klasse GW jager (716, 706) en een MOD KILDIN-klasse jager (260). Vermoedelijk vond een korte ASW-oefening plaats, waarbij tevens een Sovjet FOXTROT-en JULIETT-klasse onderzeeboot waren betrokken. Op 23 juni bereikten de Bulgaarse eenheden wederom de Zwarte Zee.

Voorafgaan aan deze aktiviteiten vond in de periode 2 - 10 juni eveneens een gezamelijke Sovjet/Bulgaarse oefening plaats, die mede tot doel had de operationele inzetbaarheid van de Bulgaarse marine te testen. Deze marine bestaat bijna uitsluitend uit ex-Sovjet materieel; naast de beide RIGA's bezit Bulgarije 3 corvetten (ex. Sovjet POTI-klasse), 2 onderzeeboten (ex. Sovjet ROMEO-klasse), alsmede een aantal patrouillevaartuigen (ex. Sovjet OSA I- SHERSHEN- P-4 klasse) en 6 mijnenvegers (ex. Sovjet T-43 en VANYA-klasse).

16. Sedert het in juni 1977 gesloten 3-jaren contract tussen Tunesië en de Sovjet Unie m.b.t. het ter beschikking stellen van de Menzel Bourguiba scheepswerf te Bizerta aan Sovjet eenheden i.v.m. onderhouds- en reparatiewerkzaamheden, hebben een groot aantal Sovjet eenheden hiervan gebruik gemaakt. Deze maand liep dit contract af, maar thans staat vast dat tijdens het bezoek van de Sovjet admiraal,Novikov,eind maart van dit jaar opnieuw afspraken zijn gemaakt en dat het gebruik van bovengenoemde werf door Sovjet eenheden zal worden gecontinueerd.

15 DE ZWARTE ZEE.

17. Vorige maand testte een onbekend vaartuig haar SS-N-12 fire control radar. Mogelijk was dit de derde eenheid van de KIEV-klasse (vermoedelijke naam Kharkov) waarvan wordt verwacht dat zij in 1981 gereed zal zijn. Begin 1979 werd aangevangen met de bouw van een vierde eenheid, waarvan wordt verwacht dat zijn in 1984 gereed zal zijn. Beide eeinheden worden gebouwd in Nikolaev.

DE INDISCHE OCEAAN.

Algemeen.

18. Er vonden in de maand juni weinig opmerkelijke veranderingen plaats in de sterkte van het SOVINDRON. Aan het einde van de maand werd een aanvang gemaakt met een onderzeeboot aflossing. Een groot aantal eenheden opereerde voor kortere of langere tijd bij het eiland Dehalak alwaar een ECHO-II klasse onderzeeboot gedurende de hele maand verbleef i.v.m. onderhoudswerkzaamheden. De vlootttanker Berezina opereerde voornamelijk nabij Aden (Zuid-Yemen).

Het grootste gedeelte van de combattanten verbleef bij het eiland Socotra.
De totale sterkte van het SOVINDRON is sedert eind vorig jaar permanent hoger dan in voorgaande jaren (zie tek. 2).

19. Begin juni verlieten de hydrografen Vladimirsky en Bellingshausen, de Indische Oceaan waar zij sedert januari opereerden. Voordat dit gebied via het Suez Kanaal werd verlaten, werd een bezoek gebracht aan Djibouti. Toen de eenheden de Zwarte Zee binnenvoeren, voerden zij de vlag van de "chief main director of navigation and oceanography" en van de "chief hydrographic service of the Navy".
Midden juni beeindigden de hydrograaf SOBOLEV en een ZULU-klasse onderzeeboot (genaamd MARS) een 127- dagen durend verblijf in de Indische Oceaan, hetgeen langer was dan voorgaande jaren.
Deze beide eenheden brachten o.a. bezoeken aan Aden (Z-Yemen), Socotra (Z-Yemen), Port Victoria (Seychellen) en Colombo (Sri Lanka).

DE STILLE OCEAAN.

20. Op 2 juni vlogen 2 BEAR-D lange afstand verkenningsvliegtuigen vanuit Da Nang (Vietnam) terug naar de Sovjet Unie na een detachering van 67 dagen, hetgeen tot nu toe de langste detachering van BEAR-D te Vietnam was. Voorgaande periodes duurden de de detachering 60 dagen. Het hoogste aantal aanwezige BEAR's aldaar bedroeg 4, waarvan 2 van het type DELTA en 2 van het type FOXTROT (ASW).
De eerste detachering vond overigens plaats in april vorig jaar.
Opvallend is de duidelijke vermindering van het aantal detacheringen van BEAR's op de Atlantische Oceaan. Tot nu toe werd nog steeds geen detachering naar Cuba gemaakt.

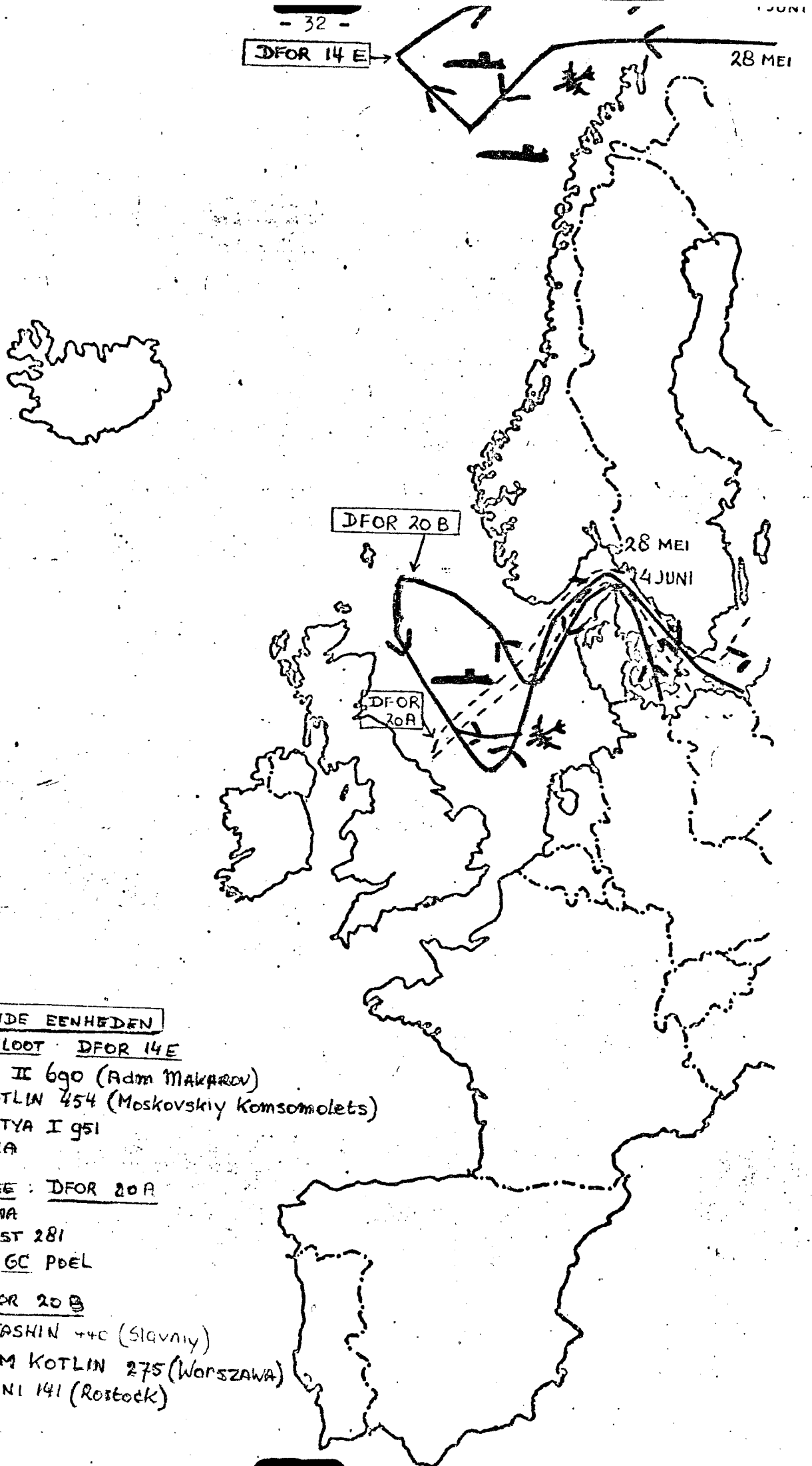
DIVERSEN.

21. LYBIE.

Waarschijnlijk werd op 7 juni een Lybische oefening aangevangen nabij de Golf van Sirte waarbij vermoedelijke 2 patrouillevaartuigen waren betrokken resp. van de SUSA en de OSA-II-klasse, bovendien zou een FOXTROT klasse onderzeeboten hebben deelgenomen.

Naast marine eenheden zouden ook Lybische vliegtuigen hieraan hebben deelgenomen hetgeen overeenstemt met aangekondigde restricties voor de luchtvaart in enkele gebieden van het Lybische territoir. Voorafgaand aan deze oefenactiviteiten zou een andere omvangrijke oefening eveneens in de Golf van Sirte hebben plaatsgevonden.

Commentaar: De Lybische marine heeft o.a. de beschikking over 11 OSA-II klasse GW patrouillevaartuigen welke door de Sovjets zijn geleverd, tevens 3 SUSA-klasse GW-patrouillevaartuigen en 3 ex-Sovjet POLNOCHY klasse landingsvaartuigen. Bovendien beschikt de Lybische marine o.a. over 1 fregat, 2 corvetten en 3 ex-Sovjet onderzeeboten van de FOXTROT-klasse.



DEELNEMENDE EENHEDEN

UIT NOORDVLOOT : DFOR 14E

CG KRESTA II 690 (Adm MAKAROV)
DD MOD KOTLIN 454 (Moskovskiy Komsomolets)
FFL MOD PETYA I 951
AORL DUBNA

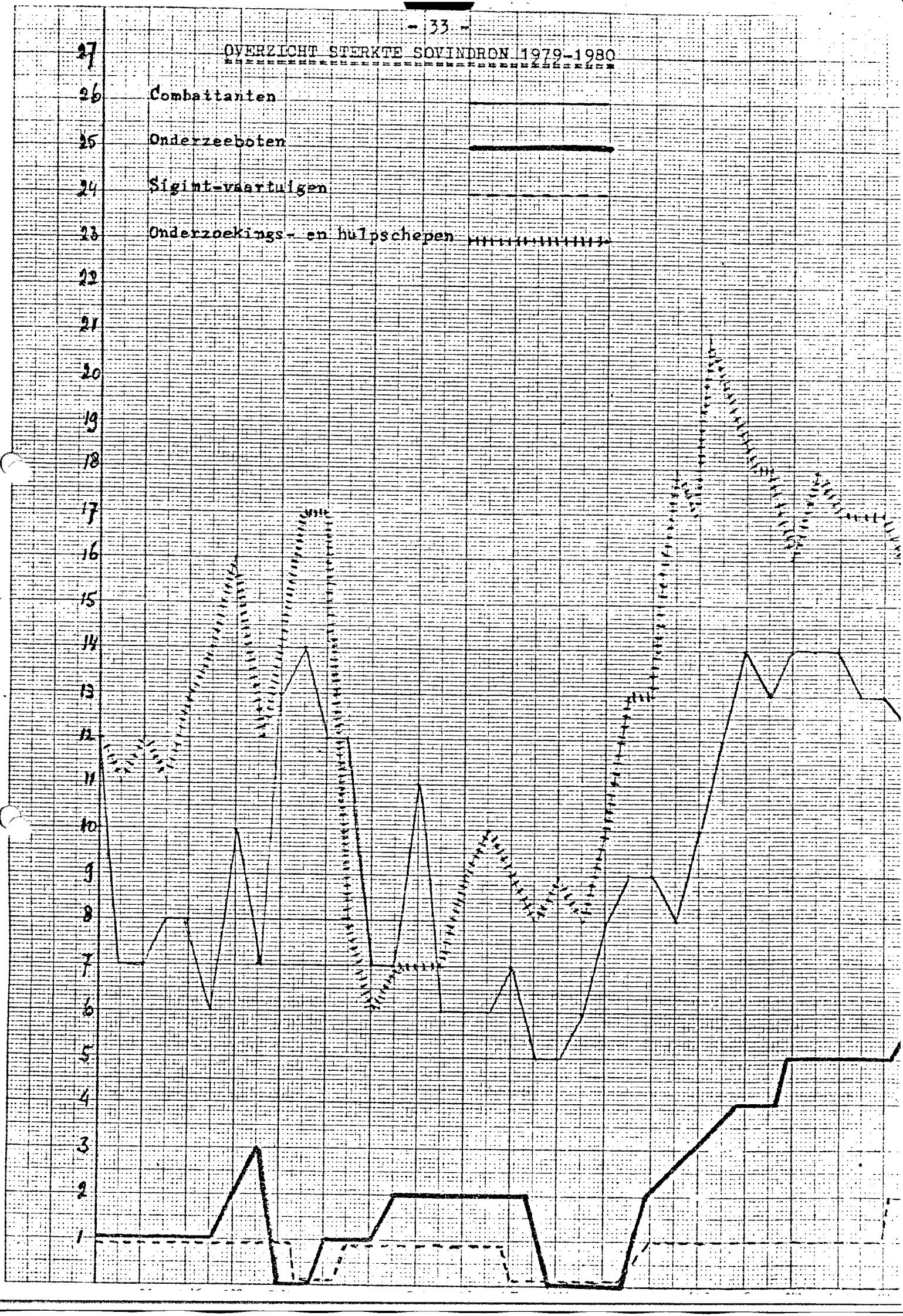
UIT OOSTZEE : DFOR 20A

AORL OLEKMA
ARS PL PIAST 281
AOL O-24 GC POEL

TEVENS : DFOR 20B

DDG MOD KASHIN ++C (Slavniy)
DDG PL SAM KOTLIN 275 (Warszawa)
FFP GC KONI 141 (Rostock)

OVERZICHT STERKTE SOVINDRON 1979-1980



HOOFDSTUK 3

KARAKTERISTIEKEN VAN COMBATTANTEN EN HULPSCHEPEN

PAUK Klasse (voorlopige klassenaam) (PG)
(Sovjet Unie)

	Class		Project	IOC	Country
	PAUK (prel. classname)	PG		1979	UR

A. Legend Details

01	Full Load Displ	t	750
02	Normal Displ	t	
03	Standard Displ	t	
04	Length OA (DWL)	m	56.5
05	Beam Max (DWL)	m	10.5
06	Draft Mean	m	2.5 (est)
07	Depth Moulded	m	
08	Flight Deck	m x m	
09	Propulsion Type		2 DE
10	Max Power	hp	8,000
11	Cruise Power	hp	
12	Max Speed/Range	kts/nm	25/.
13	Cruise Speed/Range	kts/nm	
14	Econ Speed/Range	kts/nm	
15	Econ Speed/Range	kts/nm	
16	Propellers/Blades		2/.
17	Fuel	t/type	
18	Complement	total	
19	DWT		
20	GRT		
21	NRT		

B. Armament

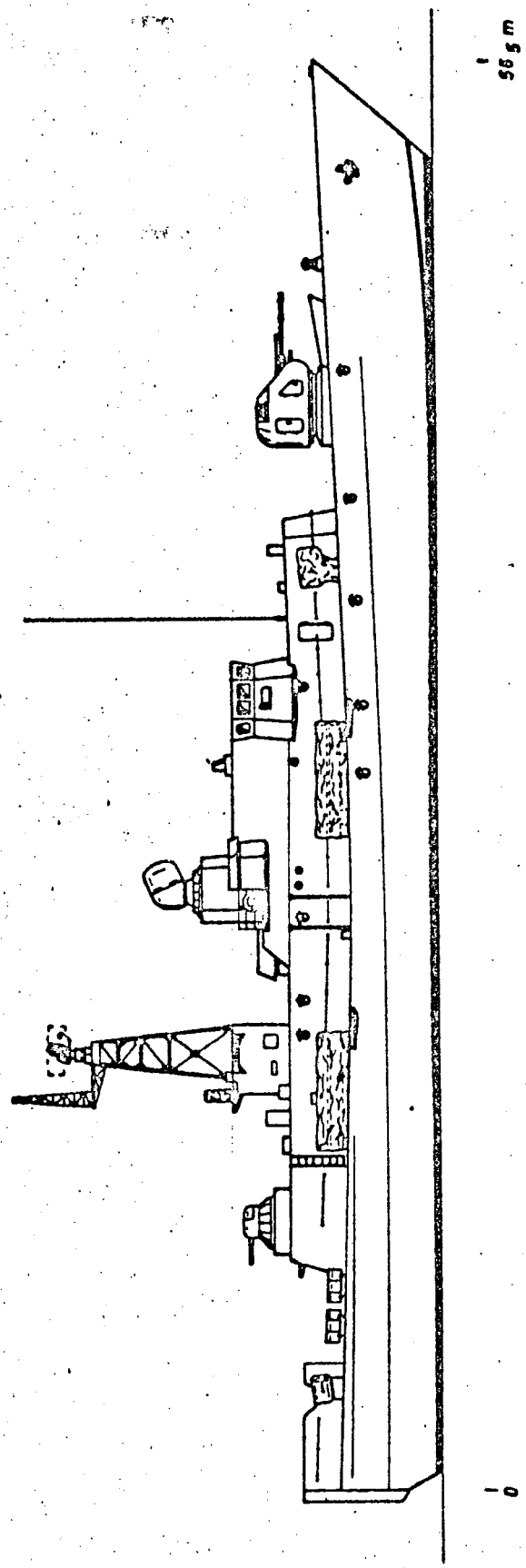
	Supply
1 x 1 76-mm/.. DP gun	.
1 x 6 30-mm Gatling ADG	.
4 x 1 or 2 400-mm torpedo tubes	.
prob 2 RBU-1200 ASW rocket launchers	.

C. Electronics

1 u/i search type
1 u/i navigational type
1 BASS TILT
VDS
hull mounted sonar

Additional Data

GENERAL - First observed during the Spring of 1979 in the Baltic, and assessed to be a POTI replacement. Building yard is unknown.
HULL - The hull is probably based on that of the TARANTUL Class.
ENGINEERING - Estimated fitted with a two-shaft diesel arrangement.
ARMAMENT - Main armament estimated to consist of ASW torpedoes and probably ASW rockets.
ELECTRONICS - Detailed observation of the electronic fit has so far not been possible. The location of several empty platforms suggest that the fit may be similar to TARANTUL or NANUCHKA II class.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