NORDIC NATO IN TRANSITION
Toward Turbulence in the 1990s?

Lt Col Lawrence R. Nilssen
USAF
Research Associate, ACDIS
1987-88

October 1988
NORDIC NATO IN TRANSITION
Toward Turbulence in the 1990s?

Lt Col Lawrence R Nilssen, USAF
Research Associate with the Program in Arms Control
Disarmament, and International Security, 1987-88
University of Illinois at Urbana-Champaign

Reprinted from The Airpower Journal
Professional Journal of the United States Air Force
Summer 1988
Pages 68-79
NORDIC NATO IN TRANSITION

Toward Turbulence in the 1990s?

Lt Col Lawrence R. Nilssen USAF
As recently as 4 August 1987 the Washington Post published an article titled All's Quiet on the Norwegian Soviet Frontier. The thesis of the article was that despite a huge concentration of Soviet forces in close proximity to NATO tensions were low as usual. This view has been the conventional wisdom since World War II. Past journalists have habitually called the northern provinces of Norway, Sweden, and Finland NATO's quiet corner or the forgotten flank when they addressed the area at all. This is changing. Since the early 1980s several trends have emerged that guarantee increased attention to the Scandinavian arctic area. The trends have recently been accelerated by unrelated events and developments and as a result the area is now emerging in the forefront of international defense policy debate. As suggested by Soviet General Secretary Gorbachev's recent propaganda peace offensive, this article identifies these trends, shows why levels of confrontation and conflict are likely in the future, and suggests some modest measures that will maintain the quiet corner status quo even as the airspace over the arctic north and particularly over northern Norway becomes ever more critical to Soviet military interests.

The central military reality driving all other considerations in the arctic north is the concentration there of roughly two thirds of the modern Soviet nuclear submarine (SSBN) fleet including the Typhoon SSBNs. Five of these huge submarines have been launched and they operate out of the Murmansk area. We cannot predict the Soviet tactical doctrine of combat employment with 100 percent certainty, but the US Navy believes the SSBNs will be dispersed into a heavily defended bastion in the Barents Sea and under the arctic ice pack where they will represent the most survivable component of a Soviet second strike capability.

Discernible Soviet doctrine places high value on the correlation of nuclear forces during the unfolding of any possible conflict. As the fixed silos of the Soviet land based ICBMs become increasingly threatened by future deployments of accurate Peacekeeper cruise and D5 missiles the Soviets will no doubt place an even higher premium on their SLBM assets. Even the proposed Strategic Defensive Initiative if effective will enhance the strategic value of submarine missile forces by placing a premium on submarine launched cruise missiles and depressed trajectory SLBMs. As
the relative value of these second strike as sets appreciates the pressure on the Soviets to take whatever measures are necessary to assure their survival will increase. By directly threatening Soviet second strike as sets the recently developed Maritime Strategy of the US Navy could also contribute to instability.

A comprehensive discussion of the Maritime Strategy is beyond the scope of this paper and volumes have been written but some fundamentals are immediately relevant to the Scandinavian Arctic. The Maritime Strategy would send several powerful carrier battle groups and perhaps one battle group north cautiously and prudently but aggressively to engage the Soviet naval forces in their home waters and threaten the SSBNs in their bastions. This strategy promulgated during Secretary of the Navy John Lehman's articulate stewardship represents a revolutionary change from the Navy's previous role of sea control—defending the sea lines of communication. Should the Navy be called to execute the strategy the Soviets must attempt to establish control of the arctic airspaces for both offensive and defensive missions. If in the ensuing fight our naval forces are significantly degraded then their more traditional mission of sea control may fail and the resupply of Europe may be impossible. If the resupply of Europe fails the alternatives for Western Europe may well be surrender or nuclear escalation. Thus the Maritime Strategy puts a premium on control of the arctic airspaces for both. At the instant hostilities seem probable.

A major consideration for both Americans and Norwegians is how to exercise the Maritime Strategy during peacetime. The Norwegians recognize that the strategy is a mixed blessing. They cautiously welcome it as a logical display of NATO resolve to defend Norway but fully recognize both the Soviet sensitivities and the difficulty of operating large formations of major surface combatants in the northern seas which are among the world's most environmentally difficult waters. Senior Norwegian defense
officials want more exercises of larger scope in the north for six reasons to gain proficiency in the arctic environment to demonstrate NATO resolve and solidarity to balance increased Soviet activity to observe Soviet activity to exercise the right to free transit and to routinize American carrier groups operating in arctic waters. Historically the Soviets have been very sensitive to foreign forces in proximity to their vital interests. The Soviets invaded Finland in 1939 to take Leningrad out of artillery range of the Finnish border for example. One must wonder how the Soviets would react if an unrelated crisis developed while an offensive battle group was exercising near the Kola peninsula.

Our battle groups are improving their offensive strike capabilities. A recent article in the New York Times disclosed that the United States had developed a terminally guided cruise missile that could hit within inches of the desired aim point therewith blurring the distinction between nuclear and conventional weapons. This cruise missile could be launched from a submarine could have stealth characteristics and would be available sometime in the mid 1990s. A follow up article reported that the newest Los Angeles class attack submarines will carry 10 vertical cruise missile launchers and that the newest Sea Wolf class attack submarines will carry 50 such weapons. These systems have profound military implications as they theoretically allow a disabling (or at least degrading) surprise attack against the Kola military defenses without using nuclear munitions. With defenses disabled Soviet military facilities would be vulnerable to systematic destruction by less vulnerable carrier battle group conventional forces. US submarines could carry out the attack mission while hunting for Soviet SSBNs and could switch munition payloads from conventional to nuclear without warning. After these weapons are operational defense in depth will be critical. The Soviets must ensure as far as they can that these triple threat submarine launching platforms are
kept as far away as possible and that they are destroyed as quickly as possible at the outbreak of hostilities. Large volumes of air space must be available to allow time to detect and intercept incoming cruise missiles and aircraft. Northern Norway offers a large volume of (relatively) lightly defended air space adjacent to Norwegian coastal areas where US submarine launching platforms could be concealed. Also the mere existence of submarine launching platforms in near proximity to Soviet waters could precipitate a crisis where none had previously existed especially if the Soviets conclude that submarine strength had been purposely massed to the level that permits a high probability of a successful disarming strike.

The relative decline of the air forces of Sweden and Finland is another trend in the arctic that is working against NATO. The Finnish air force limited by treaty to only 60 aircraft has always been weak compared to the air forces of the surrounding power blocs. Not so the Swedish air force. The defense spokesman for the Swedish Conservative Party Carl Bildt has indicated that the two most important ingredients of the Nordic military strategic equation are the Keflavik Air Base in Iceland and the Royal Swedish Air Force (RSAF). Once nearly the equal of USAFE in surge strength the RSAF guaranteed unacceptably high attrition rates to any aggressive penetrator and contributed to the stability of the area. This is rapidly changing.

Post Vietnam antimilitarism in Sweden coupled with the American Soviet detente in the early 1970s was used by the ruling Swedish Social Democratic party as a justification to allow military budgets to languish. While NATO and Warsaw Pact forces were deploying both more and more capable aircraft the RSAF while deploying more capable aircraft was deploying far fewer of them down from 56 squadrons in 1962 to 27.5 squadron equivalents of all types in 1987. This decline of strength might have been appropriate had detente flourished but with the advent of the Soviet buildup and the Reagan administration's reply the relative strengths of the Swedish and constrained Finnish air forces have deteriorated markedly since the early 1980s. According to Royal Swedish Air Force figures the air forces that can be employed against Sweden have increased 25 percent relative to RSAF strength between 1974 and 1987 and threaten to increase to over 40 percent by 1992. The relative decline of the RSAF has led to a Swedish defense de

The Soviets' huge Typhoon class submarines based at Murmansk represent an important and lucrative target in the Navy's maritime strategy, thereby increasing the tensions in NATO's Nordic flank.
bate that is more controversial and public than usual.

In February 1987 the Swedish air force chief of staff published an article that examined the relationship of force quality to quantity and how greatly the lack of aircraft numbers would influence combat effectiveness. The article was remarkably detailed, open, and candid. Of interest to northern stability, the study examined three scenarios: (1) sustained military operations through Swedish airspace, (2) a surprise massed attack through Swedish airspace, and (3) RSAF capabilities against cruise missiles.

For sustained operations, the author assumed that an aggressor would attempt to operate between 200 and 600 aircraft through Swedish airspace around the clock to attack targets outside Sweden. The author assumed that the ability to destroy 50 percent of any overflying force within 10
The J 35 Draken aircraft (above) has been in the inventory for some time including a squadron that was recently reactivated after having been in storage. Some estimates predict that only two more squadrons of fighter aircraft would increase the effectiveness of the Royal Swedish Air Force by as much as 40 percent helping the Swedes to intercept aircraft attempting to penetrate Swedish airspace such as this Tu 16 Badger (right).

Days using a combination of Swedish and target area defenses would deter sustained overflight in a conventional scenario. To accomplish this the chief of staff wrote that RSAF would have to destroy 2.5 to 5 percent of the entire overflying force (five to 30 aircraft) daily. The article concluded that if the Swedes had a great deal going for them (good weather, early warning, intact ground controlled intercept and no major enemy efforts against Swedish air and ground assets) the existing Swedish air force was sufficient. Finally, it also concluded that the existing quality was good but that the existing quantity was borderline in many cases to deter sustained operations through Swedish airspace. The results were less sanguine for scenarios involving surprise massed attack transiting Swedish airspace or cruise missiles.

To deter a surprise massed attack through Swedish airspace the article assumed that the RSAF would have to destroy about 10 percent of the transiting aircraft. It assumed a massed attack would involve 200 to 400 aircraft but could be more. Since RSAF would have to defend the airspace of a country about the size and shape of California with 11 squadrons its assets would be spread thin giving the aggressors the advantage of localized mass. The study concluded that in such an environment the aggressors could possibly inflict heavy losses on the locally outnumbered RSAF. Against cruise missile overflight the Swedes acknowledged that merely detecting the missile let alone destroying it was extremely difficult at present. A recurring conclusion in all scenarios was that the quantity of aircraft is not sufficient to deal...
with anything except optimum scenarios. The author even applied Lanchester's theorem to show that just one additional squadron would raise the marginal effectiveness of the RSAF by 20 percent and two additional squadrons by 40 percent.

Publication of that article was followed by further public disagreement among the senior military staff. Finally the RSAF commander in chief (no doubt familiar with Lanchester's theorem) let it be known that he would augment his forces by a minimal squadron (12 aircraft) of refurbished J 35J Draken interceptors taken out of storage even if he had to pay the costs out of his hide from the other parts of his already inadequate budget. This unprecedented decision shows how concerned the Swedish air force commander in chief is about the lack of aircraft. Due to fiscal constraints augmenting the aircraft numbers must occur at the expense of other force enhancers such as an upgraded C'I system improved dispersed ground facilities and so forth and unfortunately the fiscal constraints occur at a time of increased Soviet military activity in the area.

The Soviets have a tradition of military heaviness and intimidation in their relations with Sweden and to a lesser extent with Norway (interestingly, very little of late against Finland with whom the Soviets have encouraged a special relationship). Recently the Soviets have been conducting extensive operations against Sweden both underwater and on land. The reasons for this campaign are open to speculation since the Soviets do not explain their motives but several very plausible conclusions may be drawn. Conclusions that all support the thesis that the Soviets are systematically and methodically doing their homework should they judge it necessary to launch a surprise offensive in the north. The military objective in Sweden could be to degrade and delay Swedish mobilization during the first critical hours of an offensive against northern Norway thereby lowering Soviet costs to an acceptable level.

Other Warsaw Pact members assist the Soviets with their homework. Warsaw Pact commercial vehicles have been seen in the most extraordinarily noncommercial areas photographing facilities, intercepting transmissions, and so forth. During the summer of 1987 when virtually all Swedes by custom vacationed in the countryside a number of vacationing high-ranking military officers felt that their locations and movements were being followed by foreign agents. On 27 December 1983 a single electrical transformer in central Sweden went out. A chain reaction followed blacking out central Sweden and parts of Denmark and Norway. Significant portions of the emergency broadcast system which controls mobilization failed.

Frederick W. Lanchester's mutual attrition equations are mathematical models commonly used by war planners to predict the impact on combat effectiveness caused by incremental changes in quantity and quality of opposing forces.
ple true but the event suggests that a very small but highly planned attack could significa ntly degrade the Swedish mobility timetable.

Operating submarines in Swedish territorial waters is a major Soviet assignment with several immediate military rewards:

- The Soviets update their knowledge of the Swedish defenses as well as of changing bottom characteristics (this knowledge could prove invaluable should the Soviets want to conceal submarines in the vast 20,000 plus island Swedish archipelago).
- The Soviet crews get the best possible combat-like experience (the charges dropped by the Swedes are very real but not lethal and the Swedish ASW capability is excellent but very thin).
- Finally the Soviets can simulate inserting Spetsnaz saboteurs and assassins who in the event of conflict would attack key communications nodes and power grid pressure points (such as the previously mentioned transformer) and assassinate key mobilization decisionmakers both military and civilian. To facilitate submarine activities the Soviets would like to see all littoral states accept routinization of Soviet submarine operations within their territorial waters. To degrade defenses in northern Sweden and facilitate access to northern Norway the Soviets would like this routinization of submarine activities to extend to the Gulf of Bothnia between Sweden and Finland.

The Gulf of Bothnia, long an area of low military activity has seen extensive operations of what must be Soviet submarines in recent years. This must be at least partly construed as preparation for military operations against the northernmost areas of Sweden and also of Norway and Finland. There are also signs that routinization of operations has occurred. The Swedish navy has enlisted the assistance of the Swedish civilians who vacation heavily in the coastal areas to try to detect submarine activity visually. According to one recent report hunting U boats has become a popular seaside pastime. The Soviets are also active in the northern airspace but here they use intimidation as a tactic instead of stealth. That intimidation has led to armed confrontation and could precipitate its own crisis in the future.

The Soviets have a long history of playing hardball in the sensitive airspace over the Baltic and Barents seas. In the past they have shot down aircraft in international airspace without warning. In the recent past an Su 15—of KAL 007 notoriety—took up a firing position on a chartered civilian jet full of vacationers and actually followed it in a firing position into Swedish airspace. In September 1987 the Soviets harassed a Swedish electronic intelligence collection aircraft resulting in a near collision. A Norwegian P 3 Orion was not so fortunate. It was actually hit by an overly aggressive MiG pilot in the same month. For people who live in the small countries near the northern USSR this is all judged as normal (routinized) consistent Soviet behavior. Recent Scandinavian history offers several examples of the decisive military advantage accruing to surprise attack.

In Scandinavia the most memorable precedent of Soviet willingness to use military force to gain space for defense in depth was the surprise attack against Finland in 1939. Ignoring world opinion the Soviets began military operations to gain territory around Leningrad perceived as vital for defense against Nazi Germany. The Norwegians also suffered a surprise attack by German airborne and air force units on 9 April 1940. By seizing mobilization depots and airfields the Germans prevented a Norwegian mobilization and gained the strategic Norwegian coast from which to conduct U boat operations against the Allies. Today the Norwegians have a term for behavior caused by lingering strong memories of the invasion/occupation: The April 9 syndrome. The Norwegians will not lightly suffer surprise again. Neither will the Soviets who were hurt badly by the surprise achieved by German forces during the open
ing phase of the Great Patriotic War (World War II). That the cost of being surprised is disproportionately high was a lesson learned at a heavy cost of Soviet lives. That the Soviet leadership has learned the lesson well has been demonstrated by their skillful use of surprise in the invasions of Hungary, Czechoslovakia, and Afghanistan.

Future stability in the extreme north depends upon several factors. First, the West must be sensitive to the ramifications of the purely geographical accident that has forced the Soviets to station the bulk of their survivable second strike forces in the Murmansk area. The force is concentrated and represents both a lucrative target for NATO and a sensitive vulnerability to the Soviets. Any threat perceived by the Soviets as direct and imminent may be met with an irrational (from a NATO viewpoint) response. The Norwegians have demonstrated a mastery of the art of distilling legitimate Soviet security concerns from volumes of propaganda and rhetoric. They have refused to allow F-111s to exercise with NATO forces on Norwegian soil partly out of deference to Soviet sensitivities.

They did not allow the US Marine Corps to preposition reinforcement equipment in the northernmost Norwegian provinces again partly out of deference to Soviet sensitivities. The Norwegians understand that a military posture balanced between activity and restraint in the arctic area is important to stability. Lack of an immediate offensive threat removes the destabilizing Soviet incentive for an immediate preemption.

In the realm of immediate threat, US naval carrier groups are a powerful force, and they may be well advised to restrict exercises in the Norwegian and Barents seas to the extent necessary to realize the six goals previously cited. The problem is that if a crisis should occur for whatever unrelated reason, the presence of a carrier task force in a sensitive area could precipitate its own more immediate military crisis.

To make overflight of Swedish and Finnish airspace as costly as possible, the air forces of Finland and Sweden must be as strong as possible. The United States and NATO can help. Both air forces need tech

---

### THE NORDIC BALANCE

The Nordic Balance is a model useful for explaining relationships between Scandinavian countries and between the Scandinavian bloc and the superpowers since World War II. The relationships are formalized by treaty alliance policy, culture, and tradition and allow all players a certain latitude of action.

The NATO presence in Norway has been made less threatening to the vital Soviet Kola military installations by a deliberate Norwegian policy of restraint. Some examples: no nuclear weapons in Norway, no foreign troops based in Norway, and severe restrictions on military exercises near the sensitive border. The Soviets gain defensive security from the inoffensive buffer provided by nonaligned Swedish and neutral Finnish territories, the latter loosely bound by treaty to consultations should tensions become extreme.

In the judgment of Johan Jorgen Holst, the Norwegian minister of defense, the Soviets have historically shown restraint in the strength of standing ground forces and offensive air power on the Kola peninsula, given the vital nature of the assets in place. The operative result is an equilibrium with disincentives for escalation of forces targeted at the immediate area, the bottom line is predictability and stability.

This historically happy state of affairs has been overtaken by trends and events both within the Nordic Balance context and external to its mechanisms. Incremental measured responses are in danger of being overwhelmed by the decisive advantages accrued by the preemptive surprise attack, or more precisely by the intolerable penalties of being the first to absorb a surprise attack. Minister Holst also points out that while Soviet standing forces in the area are relatively small, they are rapidly being improved and could also be rapidly reinforced.
Both forces need technologically modern missile systems such as the latest Hawk AIM 9 and AMRAAM systems as they become available (and are requested). Both need effective force multipliers such as airborne early warning and control (AWAC) systems. The Swedish air force is in fact developing the prototype of a hi tech cheap but effective AWACS. Both countries recognize that while they must maintain neutral non-threatening postures toward the Soviets their cultures and living standards are inextricably Western. So there are powerful motivators in place to ensure within reasonable risk that both countries will respect the advantages that access to Western technology gives them. Finally both countries must be given the latitude to maneuver within the Nordic Balance (see box previous page).

This article has examined the trends and development that are changing NATO's Scandinavian flank. The Soviet SSBN deployments, the US Navy's Maritime Strategy, the deployment of submarine launched precision cruise missiles, the relative weakening of the Swedish and Finnish air forces, the confrontational Soviet behavior and a heritage of surprise military operations guarantee that the area will not remain the forgotten flank in the future. The collective NATO challenge will be to keep the area from being involved in a costly arms race of the type that has occurred in the European central front and to avoid actions that will accelerate further destabilization while continuing to underwrite credible collective forces capable of deterring any miscalculated Soviet adventure.
Notes
1 Karen DeYoung All s Quiet on Norwegian Soviet Frontier Washington Post 4 August 1987 Supplement 10
3 Department of Defense Soviet Military Power 1987 Washington D.C. Government Printing Office 1987 33 The exact figure depends upon the author and his method of calculating totals
4 Ibid
5 Admiral James D Watkins USN The Maritime Strategy U.S. Naval Institute Proceedings January 1986 Supplement 14 Admiral Watkins uses the term strategic reserve where the author uses the term second strike capability. This short passage summarizes eight pages of text and necessarily leaves out major concepts and details that are not directly relevant
6 Ibid 9-14 Again this paragraph necessarily summarizes a great deal of material and leaves out major concepts. A reading of the entire volume is useful
7 Johan Jorgen Holst Norwegian minister of defense Our Political Defense and Security Situation a lecture presented at the opening of the Chief s Course Number 20 at the Norwegian National Defense College 7 January 1987 Transcript by US Embassy Oslo
9 Richard Halloran Accuracy Increases in Non Nuclear Cruise Missile New York Times 14 September 1987 6
11 Gerard Owener Finland s Defense Capability Jane s Defence Weekly 7 no 5 (7 February 1987) 192
14 Ibid 7
16 Ibid 133
17 Ibid 134
18 Ibid 138
19 Lt Gen Bengt Gustafsson supreme commander Swedish Armed Forces OB Programplan For Det Militara Forsvaret 88-92 (The Supreme Commanders Proposed Military Defense Budget for 1988-1992) trans L Nilssen (Stockholm Defense Department Press 26 June 1987) The chief RAF2 went on the record in this document as being unable to support the transfer of funds from the air force to the naval ASW program suggesting that a better solution would be to fully fund both necessary programs
20 Lars Christiansson Flygvapnet Valde Egen Vag Nvgamla Plan Tas i Bruk (The Air Forces Chooses Its Own Way Will Modernize And Use An Old Airplane) trans L Nilssen Svenska Dagbladet 1 September 1987 2
22 Ibid
23 Paul M Cole Sweden and the Soviet Union in Northern Europe ed Cole and Hart 31
24 US Department of Commerce FBIS Naval Officer Views Submarine Violations WEU vol no 016 24 January 1986 P1 from Stockholm International News Service in Swedish 1000 GMT 23 January 1986 Article quotes Commander Goran Frisk spokesman for the Royal Swedish Navy Our security policy has failed. Foreign submarine units appear in our waters almost irrespective of Swedish efforts from Haparanda to Stromstad [from the Finnish border to the Norwegian border]
25 Sigrid Boe Ubotsakten ett Folkne (Submarine Hunting A New Popular Pastime) trans L Nilssen Dagens Nyheter 18 July 1987 3
26 Russians Declare Swedes Shot First in Plane Incident New York Times 18 June 1952 1 The Swedish airplane shot down was an unarmed transport hardly capable of attacking the two MiG fighters that shot it down
27 Cole 31
28 Sten Berglund Vi Hamnade Mitt I Russens Jetstrole (We Found Ourselves in the Middle of the Russians Jet Wash) trans L Nilssen Expressen 15 September 1987 1
29 Hakan Hagwall Bushflygningen Over Barents Hav (Air Intimidation Over the Barents Sea) trans L Nilssen Svenska Dagbladet 15 September 1987 2
30 US Department of Commerce FBIS WEU vol VII no 183 from Minister on Refusal to Use of F 111 in NATO Exercise Stockholm Domestic Service in English 1600 GMT 9 September 1986
31 Holst Norwegian Security in Light of the Maritime Development in the North Atlantic and the Norwegian Sea address given at a conference on NATO and the U.S. Maritime Strategy Diverging Interests or Cooperative Effort under the auspices of the Norwegian Atlantic Committee at Ingeniørenes Hus Oslo on 1-2 April 1987 Transcript by US Embassy Oslo
32 Farstad
33 Donald E Fink Swedish Air Force s Challenge Aviation Week & Space Technology 126 no 19 (11 May 1987) 15 By taking advantage of their excellent ground based command and control facilities the Swedes are able to minimize the amount of airborne equipment and hence keep expenses low