Gunnar Artéus & Kent Zetterberg

COLD WAR VIEWS ON SWEDEN

Medströms Bokförlag

Preface

This book has been produced by the Swedish research project *Försvaret och det kalla kriget* (FOKK, in English: Sweden's defence during the Cold War.)

The project is directed by a committee chaired by Professor Kent Zetterberg. Other members are Professor Gunnar Artéus, the late Captain (N) Herman Fältström, Colonel Bo Hugemark, Mr Olof Santesson, and Colonel Bertil Wennerholm. The project is being financed primarily by the Wallenberg Foundations. It has since 2002 produced more than 50 books.

The book contains the text of five lectures given at a conference on September 7–8 2017 in Stockholm. The theme of the conference was named "External Views on Sweden's Neutrality and Defence Capability during the Cold War". The speakers, representing Denmark, Finland, Norway, Russia and USA respectively, was asked to answer three questions, viz:

1) How was Sweden's neutrality regarded in your country?
2) How was Sweden's defence capability judged in your country?
3) How was Sweden viewed in your country's strategic thinking?

The book concludes with a summary and some reflections.

Gunnar Artéus	Kent Zetterberg
Editor	*Project leader*

The Swedish jet engine project "Dovern" was abandoned in 1952 and adaptations of U.S. designs were chosen instead. In 1962 the American general Curtis LeMay makes an inspection at the assembly line at Volvo Flygmotor in Trollhättan.

The American View

by Leo Michel

Introduction

During the approximately 45-year span of the Cold War, one overarching objective of U.S. foreign policy and defense strategy was to prevent the Soviet Union and its allies from dominating the Eurasian landmass and putting at grave risk America's most basic national security interests. In pursuit of this objective (known as "containment"), the United States employed, at various times and with differing emphasis, all major instruments of its national power – diplomatic, military, economic, and intelligence. In dramatic breaks from its historical experience, the United States launched the Marshall Plan in 1947, which helped to rebuild Europe's war-ravaged economies. And in 1948–49, it took a lead role in the creation of the North Atlantic Treaty Organization (NATO), where U.S., Canadian, and European civilian and military officials pursued

collective efforts to deter and, if deterrence failed, defeat any Soviet attack.

In military terms, the U.S. investment in Europe's defense was enormous. At the height of the Cold War – widely considered to be the Cuban Missile Crisis in 1962 – more than 400,000 U.S. soldiers, airmen, sailors and marines (plus tens of thousands of their dependents) were stationed across more than one hundred European communities. In addition to its conventional capabilities, U.S. European Command was armed, beginning in late 1954, with non-strategic nuclear weapons; by the early 1970s, several thousand such weapons (artillery rounds, rockets, air-delivered bombs, and atomic demolition munitions) were deployed on the territory of several Allied nations or on U.S. Navy ships assigned to the European theater. Behind these forward-deployed forces, the U.S. strategic deterrent of long-range bombers, intercontinental ballistic missiles, and submarine launched ballistic missiles (and, at their high point, an estimated 10,000 deployable warheads) provided the "supreme guarantee" of Allied security.

There can be no doubt that U.S. leaders appreciated the enormous potential costs of another major war erupting in Europe. In late 1962, for example, U.S. Secretary of Defense Robert McNamara told his NATO counterparts that "after a full nuclear exchange such as the Soviet bloc and the NATO Alliance are now able to carry out, the fatalities might well exceed 150,000,000 … In such a situation the devastation would be complete and victory a meaningless term."[1]

Given this context, it is not surprising that U.S. officials viewed relations with Sweden primarily through the lens of

their broader containment strategy in and around the Nordic and Scandinavian region. Hence, when the Swedish government opted not to join neighboring Norway and Denmark in the negotiations leading to the North Atlantic Treaty, it confirmed for many American diplomats and military leaders that Sweden should be regarded as a friendly but not especially reliable country. At the same time, there is ample evidence that U.S. officials were not, as a rule, dismissive of Swedish concerns; nor were the Americans systematically opposed to pragmatic cooperation with Sweden, provided that such cooperation served the above-mentioned U.S. strategic objective.

To explain how and why these American attitudes took shape and evolved over time, this paper focus on two issues: the U.S. view of Sweden's decision to remain outside NATO; and U.S. reactions to Sweden's exploration of a nuclear weapons option during the period 1945–68. The paper concludes with brief observations on the relevance of these issues to the contemporary security environment faced by the United States and Sweden.

Sweden's decision to remain outside NATO

In the immediate aftermath of World War II, prominent U.S. officials believed that the Swedish government's initially lukewarm reaction to the Marshall Plan and its determination to avoid any involvement in a potential third world war reflected several "flawed assumptions" in Swedish thinking. According to U.S. Ambassador H. Freeman Matthews' cable to Secretary of State George Marshall in February 1948, Swedish officials

incorrectly assumed the following: that both the United States and Soviet Union would find Swedish neutrality advantageous; that any Swedish steps toward the West, whether political or military, would incur Soviet suspicion and potential reprisals (to include a possible Soviet occupation of Finland); that in the event of a real threat of war, Sweden would have ample time to change its policy; that, in the event of war, the West would forget any resentment of Swedish neutrality and ultimately offer Sweden military assistance to face the Soviets; and, finally, that even if neutrality were not the wisest policy, it would be too divisive internally to argue against it. On this latter point, Matthews believed that Swedish leaders in effect placed maintaining domestic political unity above safeguarding national security.

Despite such harsh assessments, U.S. officials did not dismiss the possibility that over time, Swedish views might change. Indeed, some State Department and White House officials apparently contested Matthews' inclination to punish Sweden for its neutral stance. For example, in his March 1948 memorandum to President Harry Truman, White House adviser Clark Clifford recommended that Sweden be included among the nations invited to join negotiations on a collective defense arrangement between North America and Western Europe. In the following months, U.S. diplomats tried to press the argument that Swedish proclamations of neutrality were in a very risky policy. As Matthews told a senior Swedish foreign ministry official: "One cannot expect the United States to go to war to help a neutral which is unwilling to join with other free nations in the common interest of the Western free

world and share common risks and responsibilities. What Sweden failed to understand was the importance of joining with other nations to help prevent a war. It was not just a question of perhaps saving a few weeks of neutrality if war broke out."

But U.S. diplomats soon concluded that under Foreign Minister Östen Undén, Swedish neutrality policy was unlikely to change. Undén, they believed, took a "plague on both your houses" view of the East-West conflict. Hence, in September 1948, the National Security Council (NSC) sent Truman a report on U.S. policy toward Scandinavia that recommended making "it perfectly clear to Sweden our dissatisfaction with its apparent failure to discriminate in its own mind and in its future planning between the West and the Soviet Union." However, Washington would refrain from any pressure on Sweden to take an "unnecessarily provocative" step toward the Soviets. One practical result of this approach was to prioritize U.S. military assistance to nations interested in NATO membership – in effect, putting any Swedish requests at the end of the queue.

During this period, Washington was counseled by others not to overreact to Sweden's public stance. Senior Norwegian officials pointed out, for example, that Sweden – with a relatively capable navy and potential mobilization strength of some 600,000 soldiers – remained the only military force of any value in Scandinavia. Moreover, they told American counterparts that Norwegian parties and public opinion would find it difficult to accept a break in Norway's traditional ties with Sweden.

Marshall may have had these factors in mind when he met with Undén in October 1948, but their conversation only confirmed their fundamental disagreement on the neutrality question. Undén acknowledged that in the event of a major conflict, Sweden likely could not remain neutral "for any extended period of time." He argued, however, that any Swedish step toward the West would immediately have a negative effect on Soviet policy toward Finland. (In a separate meeting a few weeks later, a senior Swedish official specified that anticipated Soviet "countermeasures" to any Swedish move to join a military alliance would include the "prompt Russian occupation of Finland.") Undén then sought Marshall's reaction to Sweden's idea of a "neutral Scandinavian bloc" that would provide for "joint defense action" among Sweden, Denmark, and Norway with no "outside tie" – meaning the three countries would not join the envisioned North Atlantic Treaty.

In response, Marshall pointedly asked Undén to consider how the world might look if Presidents Woodrow Wilson and Franklin Roosevelt had maintained, during the two world wars, the same sort of neutralist policy advocated by Sweden. He stressed the military vulnerabilities of the Scandinavian region, as well as the changing nature of military operations that increasingly favor "surprise and quick initiative." As Marshall later recounted to the Norwegian foreign minister: "I mentioned [to Undén] that while Switzerland could maintain neutrality based on geography, Sweden could not."

Marshall's successor, Dean Acheson, was similarly unimpressed by Swedish efforts to create a neutralist Scandinavian defense pact as an alternative, for the three countries

concerned, to NATO membership. Nevertheless, by mid-August 1949 (shortly before the North Atlantic Treaty entered into force) Acheson's State Department approved a policy statement that reflected a relatively balanced, if not entirely uncritical, view of Sweden. The overall objectives of U.S. policy were declared to be "preservation of Sweden's independence and democratic outlook and ... cooperation in our efforts to achieve economic recovery and political stability in Europe." Given the new treaty commitments to Norway and Denmark, "an attack on Sweden could not fail to create the most serious effects for us ... [as the] hostile occupation of Sweden would render infinitely more difficult any future defense of those [Allies.]"

Hence, while making clear to Swedish officials that the United States viewed its policy of neutrality as "dangerous and impractical," the policy statement ruled out exerting pressure on Sweden to join NATO. And while the statement decried Sweden's "negative attitude" toward strengthening Western Europe's military capabilities, it raised the prospect that a combination of NATO's performance and growing public unease with Soviet policies "may in time bring Sweden into participation in collective defense measures."

With Sweden's decision to stay outside NATO now set, the U.S. shifted its approach to considering pragmatic bilateral cooperation on a case-by-case basis. Informal contacts between Swedish military authorities and the U.S. European Command were established, and as one U.S. diplomat put it, "we became rather satisfied with the fact that ... [the Swedes] weren't formally [in NATO], but they were keeping up their military

posture." The increased yet discreet military-to-military contacts probably reinforced U.S. appreciation for the strategic position of the Scandinavian region; an intelligence assessment in 1952 noted, for example, Sweden's potential importance for providing early warning facilities, allowing overflight of Allied aircraft en route to Soviet targets, and helping to impede Soviet operations in and through the Baltic Sea. Some diplomatic reports noted a correlation between the progress of U.S. rearmament programs for Western Europe, the increasingly confident statements by Swedish officials on their ability and will to defend their country, and their willingness to continue "cooperation on an even more covert basis with the West on matters of politico-strategic importance." The overall U.S. assessment was that, if attacked by the Soviets, Sweden would resist and expect assistance from the West.

On the other hand, Swedish security concerns apparently were not among Washington's top priorities. For example, in August 1950, when the NSC assessed the possibilities of Soviet aggression in Europe – up to and including "global war" – in the weeks following the invasion of South Korea by the Communist regime in the north, there was no mention of Sweden. In fact, the NSC recommended that in the event of Russian aggression against Finland – a scenario that U.S. planners knew would be extremely grave for Swedish interests – the United States should "take no military action ... to oppose the aggression." In addition, Washington imposed restrictions on technology and military equipment transfers to Sweden on the grounds that Swedish exports with potential military applications had gone to the Soviet bloc.

As the Truman administration drew to a close in 1952, U.S. officials clearly differentiated between the treaty-based commitment to defend Norway and Denmark, and U.S. "interest" that Sweden be in the "best possible position to resist Soviet pressure or aggression." In other words, the Swedish presumption of U.S. assistance in case of war was, from an American perspective, less than iron clad.

The Swedish analyst Robert Dalsjö does an excellent job in documenting and analyzing the clandestine relationships between Swedish and American defense, military and intelligence officials in *Life-Line Lost: The Rise and Fall of "Neutral" Sweden's Secret Reserve Option of Wartime Help from the West*. From an American perspective, that relationship was broadly consistent with the Truman Administration's ultimately pragmatic approach, which was further developed under his successor, President Dwight Eisenhower.

For instance, a comprehensive NSC report on U.S. policy toward Denmark, Norway, and Sweden (approved by Eisenhower in 1960) emphasized the region's strategic importance, noting that "Soviet domination of Scandinavia would enable the USSR to deploy forces further to the West, thus permitting it to increase the threat to the Western Hemisphere, to threaten operations in the North Atlantic, and to form a protective shield against sea or air attack from the Northwest." According to the report, Swedish armed forces, especially the air forces, were "by far the most effective military forces in Scandinavia." While it found that "under the present circumstances, Sweden's membership in NATO is not necessary to Western defense," the report observed that a strengthened

Swedish defense posture, including "early warning, air control, and advanced weapons systems" would "contribute to the overall defensive strength of the Western powers." The report also cited Sweden's willingness to cooperate "informally" with the Western system of controls on trade with the Soviet bloc, known as COCOM – an important step given earlier U.S. concerns about Soviet bloc acquisition of Swedish dual-use technologies.

The policy guidance that flowed from the NSC analysis fell short of a unilateral guarantee of U.S. military assistance to Sweden if it were attacked, but it strongly suggested that such assistance would be forthcoming. Specifically, the document stated that: "In the event of general war with the Soviet Bloc [the United States will] (a) seek to prevent Sweden, as long as it remains neutral, from giving any assistance to the Soviet Bloc, and (b) encourage and assist Sweden, without prejudice to US commitments to NATO, to resist Soviet Bloc attack against Sweden. In the event of Soviet Bloc aggression against Sweden alone, [the United States would] be prepared to come to the assistance of Sweden as part of a NATO or UN response to the aggression." Moreover, while Sweden (unlike Denmark and Norway), was not to receive grant (i.e., non-reimbursable) military assistance, the NSC opened the door to selling Sweden modern weapons systems, especially air defense systems "compatible with and complementary to" those intended for Norway and Denmark, provided that NATO Allies received first preference.

There is little evidence to suggest that the strategic approach decided by the Eisenhower administration was substantially changed under the seven U.S. administrations that followed during the Cold War. U.S. officials, influenced in part by their British counterparts, began to see some aspects of Sweden's position as politically useful to the West – or example, in avoiding greater Soviet pressure on Finland. Washington also was aware and supportive of Swedish military cooperation (including communications) with Norway and Denmark. And by 1969, Sweden was purchasing more U.S. military materiel than British, French, or West German equipment.

To be sure, political relations between Washington and Stockholm waxed and waned as a result, for example, of outspoken Swedish criticism regarding U.S. actions in Vietnam and race relations in America. (During the late 1960s and early 1970s, the large demonstrations in Sweden against the Vietnam war, its offers of economic aid to North Vietnam, and its welcome of U.S. deserters and draft dodgers reportedly led senior U.S. military officers to question the value of any military-to-military ties.) The drawdown of Swedish defense forces in the 1970s apparently diminished U.S. interest in maintaining some of its informal channels for cooperation. And some U.S. defense experts were critical of what they considered to be Sweden's "timid" response to Soviet submarine activities in its territorial waters during the 1980s. However, as Dalsjö correctly points out, "such phenomena did not really change the [U.S.] position taken on the basis of lasting political and strategic realities: Sweden was basically a Western country and its defenses were an important part of the security of the northern flank."

The United States and Sweden's "nuclear option"

U.S. reactions to the Swedish nuclear weapon research program constitute one of the most interesting aspects of the bilateral relationship during the Cold War. As elements of Sweden's nuclear weapon-related research began to take shape in late 1945 – apparently instigated by the military, but with support from at least some prominent political leaders – it is unclear whether U.S. officials were initially aware of the scale or intent of the effort. According to an American expert's account, the CIA assessed in 1949 that Sweden's main interest in nuclear research was to find a cheap energy alternative to coal, not to develop a weapon. The CIA also assessed that Swedish deficiencies in nuclear research were largely attributable to a "lack of manpower and economic resources, not to any lack of ability." The U.S. ambassador was given a "thorough briefing" on the Swedish nuclear research program in 1950, but there is no indication that its possible weapon applications were discussed. At the same time, Swedish authorities were credited with helping U.S. efforts to block shipments of specialized equipment to the Soviet Union for use in the latter's nuclear weapon program. In any event, by 1955, the U.S. Government was sufficiently confident of Sweden's ability to control sensitive technologies and materials – as well as its intent to focus on civil applications of atomic energy – to conclude an agreement on cooperation.

Curiously, by 1955, some American analysts already had concluded that Swedish planners were interested in acquiring or developing so-called tactical nuclear weapons. According to those analysts, the Swedes had concluded that such

weapons were necessary to deter a Soviet attack and, if deterrence failed, to stop an invasion that likely would be staged from Finland. By 1957, a U.S. intelligence assessment warned that "it is likely that Sweden will decide to produce nuclear weapons within the next decade." A 1963 assessment reported that Swedish military authorities "unanimously agree that nuclear weapons are necessary [to] maintain the current level of effectiveness ... otherwise, conventional forces will become increasingly powerless to offer any significant resistance." And a 1966 assessment stated that Swedish military planners had "apparently considered in some detail the types of weapons which would be most effective against landing forces [prepositioned demolition weapons and low yield warheads for delivery by tactical aircraft or short-range missiles.]"

That many Swedish politicians and a large segment of the public were opposed to acquiring nuclear weapons was no secret to American officials, who closely observed the growing debate and repeated delays affecting the Swedish program. By 1967, U.S. analysts concluded that defense budget cuts ordered by the then minority Social Democratic government would reduce the likelihood of any decision to acquire nuclear weapons. With its decision to sign the Nuclear Non-Proliferation Treaty (NPT) in 1968, the Swedish government effectively ended its nuclear weapon-oriented research and planning.

For purposes of this paper, two aspects of Sweden's "nuclear option" deserve special mention, as they seemed to reflect important disconnects between U.S. and Swedish expectations regarding the limits of any nuclear cooperation.

First, beginning in the early-mid 1950s, Swedish military planners apparently saw the relaxation of previous U.S. restrictions on sales of conventional weapons to Sweden – part of Washington's reaction to the perceived threat of Soviet aggression in the wake of the Korean War – as a sign of U.S. willingness to eventually sell tactical nuclear weapons, as well. According to U.S. diplomatic reporting, beginning in 1954, Swedish officials expressed interest in acquiring U.S. dual-capable short-range missile systems – i.e., systems able to carry either conventional or nuclear warheads. U.S. officials saw this as another indicator that a Swedish request to acquire nuclear weapons might follow sometime in the future, depending on the evolution of the Soviet threat. Indeed, between 1955 and 1960, U.S. diplomatic reporting mentioned a few incidents when Swedish officials appeared to broach the idea of obtaining nuclear weapons from the United States. (Swedish interest in exploring such an option reflected, in large part, the anticipated high costs of a purely national weapon development and production effort.) In fairness, by 1962, a Swedish study group concluded that "if the Swedish armed forces are to be equipped with nuclear weapons, they must be produced [in Sweden.]"

While the United States had provided nuclear-capable delivery systems (aircraft, artillery, and short-range missiles) to certain NATO Allies, it was widely known that U.S. forces retained custody and control of the associated warheads. In a crisis, only the President could decide to order the release of those warheads to selected Allies under "dual key" procedures. It was remarkable, therefore, that Swedish military authorities

might have believed that, while Sweden remained outside NATO the United States nonetheless would consider it to be so vital to Western security as to devise some sort of special nuclear sharing arrangements. In fact, in the above-mentioned NSC report approved by Eisenhower, it is explicitly stated that the United States will "not provide nuclear warheads [to Sweden]; and [will] discourage Sweden from producing its own nuclear weapons."

A second noteworthy aspect of Sweden's "nuclear option" involved its political-military analysis of the U.S. "extended nuclear deterrence" doctrine. According to American analysts, beginning in the early 1960s Swedish defense planners came to understand that the Soviets' military buildup in the Kola Peninsula region had up-ended previous assumptions that Sweden could somehow distance itself from a major East-West conflict. On the one hand, this could buttress the arguments of those favoring a Swedish nuclear deterrent, as well as strengthened conventional forces. On the other hand, opponents of a "nuclear option" could point to the Soviet buildup as another reason for confidence that, if Sweden were attacked, the United States would be obliged to come to its assistance. Moreover, the latter group could argue that Sweden did not need nuclear weapons because it would be essentially protected by the U.S. nuclear deterrent. Or, as one American analyst has summarized it: "In the Swedish view, deterrence is a general condition, not a specific guarantee that can be extended to or withdrawn from a particular country."

From an American perspective, such reasoning was not wholly unreasonable. To be clear, U.S. policy never supported

enlargement of the "nuclear club," even if it came to accept, for somewhat different reasons, the U.K. and French independent nuclear deterrents. Moreover, U.S. willingness to provide extended deterrence to NATO Allies – a decision, it must be emphasized, that involved additional risks for U.S. national security – was motivated, in large part, by a desire to discourage additional, technologically capable Allies from acquiring nuclear arsenals of their own. An additional U.S. concern was that Swedish conventional defenses, which U.S. planners valued, would suffer under the weight of a costly nuclear program. The principal problem, from an American perspective, was that for much of the Cold War – in particular, from the mid-1960s onward – Sweden's defense policy benefitted from U.S. extended deterrence while its declared foreign policy called for nuclear disarmament.

Relevance of the Cold War experience to contemporary security issues

Today's international security environment is, of course, very different from the Cold War. U.S. and European relations with Russia are difficult in many areas, particularly after Russia's illegal annexation of Ukraine and military intervention in Eastern Ukraine. But the seemingly implacable ideological conflict and looming risk of large scale military confrontation that permeated relations with the Soviet Union are largely gone. Sweden and Finland are fully integrated into the European Union. They also cooperate as close Partners with NATO and, increasingly, through bilateral defense channels with the United States.

Nevertheless, a few arguments and assumptions heard during the Cold War still echo today.

On the question of NATO membership, the Swedish debate is no longer dominated by a principled dedication to "neutralism." As Defense Minister Peter Hultqvist made clear during his speech in May 2017 in Washington: "The European security order is no longer in place as we know it because of Russia's aggressive behavior … A strong U.S. link to Europe is important for the stability in NATO and Europe. And it is only together with the United States that European countries can balance the Russians." In discussing the Statement of Intent that he signed in 2016 with then Defense Secretary Ashton Carter, the Minister pointed out that the two countries have "deepened our dialogue on the policy and military level. Focus for our discussion has been Northern Europe and how we can respond to challenges together. We have stepped up our training and exercise programs, in the air, at sea and on ground. All this, recognizing that joint activities bolster our ability to operate together and send security political signals to friends and others."

In this author's view, these programs – and the Minister's realistic but balanced statements regarding the challenges posed by Russia – are to be applauded. But they do not address the issue of Swedish assumptions. Are those assumptions still essentially the same as during the Cold War, when – again, from an American perspective – Swedish planners believed their geographic location, military capabilities, and political and economic ties to the West in general, and the United States in particular, provided a virtual guarantee of U.S. and

Western assistance in the event of aggression from the East? If so, one should not forget the aforementioned admonitions by the U.S. ambassador and Secretary of State in 1948.

Finally, on the question of nuclear deterrence, Sweden's decision not to pursue the nuclear option was, in retrospect, the proper one. Thankfully, the risk of nuclear conflict on the European continent is much, much lower today than at the height of the Cold War. That said, to paraphrase Leon Trotsky's famous dictum on war: "You may not be interested in nuclear weapons, but nuclear weapons are interested in you." In recent years, various forms of "nuclear saber rattling" by the Russian Federation – reflected in its nuclear modernization programs, shifts in its military doctrine, the conduct of recent military exercises, and threatening rhetoric by prominent Russian leaders – have prompted NATO to focus new attention on nuclear issues.

Based on Russian actions and policies – and in anticipation of nuclear-related developments outside Russia that will occur over the next few years, including the U.S., U.K., and French programs to modernize their respective deterrents – Sweden (and, for that matter, Finland) might not have the luxury of ignoring or playing down the nuclear dimensions of NATO's deterrence and collective defense strategy and capabilities. Hence, Sweden will need to consider how to rejuvenate its expertise on how deterrence works, including its nuclear dimensions. Based on admittedly anecdotal evidence, it would appear that much of that expertise has eroded since the end of the Cold War.

Moreover, if one accepts the premise that Sweden has a shared interest with the United States, other NATO Allies, and

Finland in maintaining peace, security, and stability in the Nordic-Baltic region – and that this will require for the foreseeable future an important role for nuclear weapons as part of an effective deterrent to aggression – then Sweden needs seriously to consider if its interests are best served by joining efforts, such as the Treaty on the Prohibition of Nuclear Weapons, to "delegitimize" the possession of nuclear weapons consistent with the Nuclear Non-Proliferation Treaty.

53 UD:s arkiv. "Sovjetisk syn på svensk neutralitetspolitik under efterkrigstiden", p. 1–118.

54 Ibid, p. 21.

The American View

Notes

1 This paper draws extensively on declassified U.S. Government diplomatic cables and intelligence estimates located in the Department of State's Office of the Historian (https://history.state.gov/), the George Washington University's National Security Archive (http://nsarchive.gwu.edu/), and on-line archives of U.S. presidential libraries. Among the journal articles and monographs consulted by author, a 1994 report by the RAND Corporation (and sponsored by the Office of Research and Development, Central Intelligence Agency) was especially helpful: "Sweden Without the Bomb, the Conduct of a Nuclear-Capable Nation Without Nuclear Weapons," by Paul M. Cole (http://www.rand.org/content/dam/rand/pubs/monograph_reports/2007/MR460.pdf) A detailed account of the Swedish nuclear weapons program by a Swedish researcher, Thomas Jonter, is found in: "The Swedish Plans to Acquire Nuclear Weapons, 1945+1968: An Analysis of the Technical Preparations," Science and Global Security, 2010.

Picture sources

Flygvapenmuseum, Linköping, Sweden 102

Forsvaret/Danish Defence 12

Forsvaret/Norwegian Armed Forces 44–45

Försvarsmakten/Swedish Armed Forces 10–11, 78–79, 80

Laukkanen, Jyrki, Finland 30–31

LiveInternet, Russia 32

Robotmuseum, Arboga, Sweden 100–101

Roth, Thomas, Sweden 46

Contributors

Michael H. Clemmesen
Brigadier General (retired), Kongl Danske Forsvarshøjskole, Copenhagen, Denmark.

Kimmo Rentola
Professor of History at the University of Helsinki, Finland.

Tor Egil Walter
Commander (Navy, retired), lives in Drøbak, Norway.

Alexey Komarov
Professor of History at the Moscow Institute of World History, Russia.

Mr Leo Michel
Non-resident Senior Fellow, Brent Scowcroft Center on International Security, USA.