

## CENTRAL INTELLIGENCE AGENCY

10 January 1951

INTELLIGENCE MEMORANDUM NO. 345

SUBJECT: Sweden's Military Procurement Problem

## SUMMARY

Sweden normally depends upon the import of considerable amounts of strategic raw materials and many important items of military equipment to maintain the effectiveness of its armed forces. The greater part of these imports come from NATO countries, with the most important single commodity being petroleum. If the growing rearmament requirements of the NATO group lead to a severe reduction in the amount of strategic materials and military equipment available to Sweden, the Swedish armed forces would deteriorate in efficiency.

There is no practical way for Sweden to make up any loss in strategic supplies from NATO countries. Imports from the Soviet bloc, or from other non-NATO countries, could meet only a small part of Sweden's present needs for strategic materials and military equipment. Although Sweden has the skills, resources, and plants to become nearly self-sufficient both in manufactured equipment and in materials (except for petroleum, petroleum products, coal and coke), the economic cost of such a program would be prohibitive except during actual war or gravest national emergency. Moreover, the time required to develop such self-sufficiency might not be available when an emergency arose.

A decline in the efficiency of the Swedish armed forces would be detrimental to US security because Sweden, though not a member of NATO, is fundamentally anti-Communist and anti-Russian in orientation, and would fight if directly attacked by the USSR. Any weakening of Swedish armed strength would make a Soviet invasion of the country easier, and would also exert a depressing effect upon Norway and Denmark. For these reasons it is still highly important for the US to have Sweden continue to be as strong and stable as possible.

Note: This memorandum has not been coordinated with the IAC agencies. It is based on the premise that Sweden will be unable to obtain many vital military commodities from the NATO group and does not attempt to evaluate the policies involved. The memorandum contains information available to CIA as of 1 January 1951.

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SWEDEN'S MILITARY PROCUREMENT PROBLEM

Sweden, to maintain an effective defense force, must import various materials and products, many of which come from members of the NATO. If the rearmament requirements of the NATO group lead to severe restrictions on exports of a military or strategic nature to Sweden, the efficiency of Sweden's armed forces would be seriously affected and would cause the Swedish Government to seek other means of procuring the essential military items formerly obtained from NATO countries. The purpose of this study is (a) to estimate the effect a reduction of strategic imports from NATO would have on the efficiency of the Swedish armed forces; (b) to consider the steps open to Sweden to resolve the problem arising from reduced strategic imports; and (c) to estimate how the security of the US would be affected by (a) and (b) above.

Sweden's defense problem is complicated because it is vulnerable to Soviet attack by land, sea, and air. Defenses must, therefore, be provided against all three kinds of assault under both cold and warm weather conditions. Moreover, the terrain varies from the rough and mountainous in the north to the relative flat lands of the south. Although these circumstances are not unique to Sweden, they take on added significance because Sweden, although approximately the size and shape of California, has a total population less than twice that of Los Angeles County.

Coupled with Sweden's difficult over-all defense problem is the detrimental effect that nearly one hundred and forty years of peace have had on the advancement of the military profession in the theory and practice of modern warfare. During and after both world wars, particularly World War II, Sweden's policy of neutrality reduced to a minimum the opportunities for valuable exchanges of military information, techniques, and strategic concepts. Since World War II, however, the military leaders have been exerting every possible effort to modernize Sweden's armed forces through the utilization of foreign designs and technicians, the stockpiling of commodities in critical short supply, and the expansion of domestic industry. Sweden's neutral foreign policy, and various economic and financial factors have placed certain limitations on these efforts.

Although Sweden's present armed forces are, on the whole, excellent for a small nation, they suffer from lack of combat experience and are purely defensive in concept. Thus, the air force, which is the world's fourth strongest numerically, is weak in modern bomber types, but jet fighter strength is being increased. Sweden's navy ranks sixth in the world; it has an efficient underwater service consisting of twenty-four submarines, with three additional authorized for construction. Sweden's conscript army is second-rate by US standards, suffering from

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lack of modern equipment and large-unit training, but universal military training makes possible the mobilization of approximately 850,000 men out of a population of seven million (equal to that of Denmark and Norway combined).

Sweden, to maintain defense forces at the present level of readiness and efficiency, must import certain strategic raw materials, finished products and component parts; most of these imports normally come from members of the NATO. Of these imports petroleum and associated products are the most important. Sweden is dependent upon outside sources for 90 to 95 percent of its petroleum requirements; during 1949 at least two-thirds of Sweden's petroleum imports came from areas controlled by NATO countries. Also high on the list of vital imports is solid fuel, with about half of Sweden's total requirements now coming from the UK, Belgium, and Western Germany. More than 90 percent of Sweden's crude rubber is imported from British-controlled areas. Finally, Sweden is deficient in the production of non-ferrous metals, alloys, and ores, which are extremely important to all military services. Many such metals and ores, especially tin and bauxite, and including copper, nickel, antimony, cobalt, cadmium, vanadium, and manganese, are now procured in substantial quantities from several of the NATO countries.

Notwithstanding the fact that the Swedish electrical industry is well developed and extensive, it has lagged behind in the specialized field of electronics; currently the armed forces depend almost completely upon purchases from the US and the UK. Virtually every radar device now used by the military, regardless of type or function, is of US-UK origin.

Component parts presently obtained from NATO nations and directly affecting the efficiency of the fighting forces are very numerous. For example, subminiature tubes for proximity (VT) fuses come from Holland; and, until the Swedish aircraft industry is completely retooled, many important accessories for jet aircraft, such as instruments and wheel assemblies, must be obtained from the US and UK. As for military motor transport, Sweden's relatively small automotive industry also imports a large number of component items from the US, the UK, and France because they are cheaper than domestic products. Included in this category are carburetors, electrical equipment, rear axles, and steering gears.

Thus, Sweden's defense forces presently rely to a large degree for their equipment and supplies upon sources controlled by members of the NATO. Sweden probably has enough petroleum on hand to permit normal peacetime operations for six months. At the other extreme, because of non-membership in the NATO, there is virtually no stockpile of major electronic equipment such as radar, and those devices now in operation would become inoperable in a very short time without

replacement parts. Raw materials in general are probably in no better supply than petroleum, and defense industry output would soon be materially curtailed by a reduction of imports of this nature. Thus, an inability on the part of the Swedes to procure various strategic materials from NATO countries would seriously reduce the efficiency of the armed forces. Without the development of adequate alternative sources, Sweden's armed forces would soon be practically immobilized. The air force would suffer from reduced flight operations and ineffective night and foul-weather training in conjunction with radar exercises. Fleet exercises would be curtailed and the navy's operational readiness for combat would steadily decline. Similarly, the army's mobility would decrease and motor transport and armor already obsolete would soon become unusable because of replacement part shortages. In addition, Swedish industry would become less and less capable of turning out military orders owing to lack of critical raw materials.

Sweden could attempt in several ways to offset the serious consequences of reduced strategic imports from NATO sources. A partial solution would undoubtedly be to exploit and develop domestic mineral deposits and industrial capacity; this could be done without diverging from a strict policy of neutrality. Indigenous coal and shale oil resources can provide at least ten percent of requirements, and this figure could be increased to a small degree by improved processes and greater investment. At the present time, the small amount of synthetic rubber produced can be discounted, but this industry can be enlarged to some extent. The scarcity of solid fuels makes it impossible for Sweden to become self-sufficient in smelting ores of the most important non-ferrous metals and alloys. The manufacture of finished products would be possible only by using less suitable substitutes in many instances and, as a result, the armed forces would not be capable of maintaining the present standards of their equipment.

Military electronic equipment, including radar and anti-submarine warfare (ASW) sets, could be produced in an emergency, but they would be of inferior design and reliability. The time required to start production would depend largely upon the supply of requisite raw materials.

At the expense of other production, in many instances of a military nature, component parts and accessories for motor transport and armor, fuses of all types, and jet aircraft could be manufactured. However, the problem of substituting domestic production for imports from NATO countries is complex and difficult. Even maximum utilization of domestic resources and skills would not enable Sweden to maintain a fully effective army, navy, and air force. Large government subsidies and total technical and scientific mobilization would make possible only severely limited production.

Even though Sweden may be able to achieve much greater self-sufficiency in military production, the formidable expenditures required and the enormous economic waste would probably be tolerable to the Swedes only in time of war or extreme emergency. Thus, it is very unlikely that Sweden would make more than perfunctory attempts at self-sufficiency under any circumstances short of the gravest national emergency. By the time such an emergency arose, it would probably be too late.

In searching for additional means of solving the problem of military production, Sweden would surely try to obtain needed materials from all non-NATO and non-Soviet bloc sources. Mexico, Indonesia, Argentina, and Egypt all produce oil. Raw rubber might be bought from Indonesia and Ceylon, and wolfram is mined in Spain. Switzerland manufactures excellent time fuses and is willing to engage in business transactions involving strategic commodities. Although these expedients cannot be entirely dismissed, they would be even less likely to fulfill military requirements than the exploitation of Swedish resources and capacities.

Before Sweden would turn to the Soviet bloc, an appeal would be made to Norway and Denmark in the hope that these two neighbors might carry the Swedish case before the councils of the NATO. Both the Danes and the Norwegians are known to favor providing armaments to Sweden, largely to accomplish a general strengthening of the Scandinavian area. Vigorous arguments for favorable action would be made by both governments.

As a last resort, exclusive of an outright request for admission to the NATO, Sweden might attempt to transfer some of its dependence for military import requirements from the NATO countries to the USSR and its satellites. Such a course is extremely unlikely. It would be most distasteful to the Swedes not only because of the great difference in ideologies, but also because, from a practical viewpoint, it would entail exporting large amounts of strategic commodities to their only potential enemy. Moreover, the Soviet bloc might be unable to fill all of Sweden's requirements. In regard to petroleum, for example, Russia controls less than ten percent of the present world output. Any raw materials that could be spared by the USSR would certainly come at a high price in money, goods and concessions; in fact, Sweden's weakness would probably be exploited fully by the Kremlin.

Finally, Sweden could solve the problem of strategic requirements by abandoning its historic foreign policy and seeking membership in NATO. However, there is no sign of any development in this direction, and it is unlikely that mere lack of strategic supplies would bring the Swedes to such a decision without a very considerable accompanying increase of direct Soviet threats (i.e. an occupation of Finland).

They are much more likely to temporize, to attempt to solve their procurement problems by inadequate expedients, and to accept the consequence of a considerable deterioration in their armed strength.

Any substantial impairment of the effectiveness of the Swedish armed forces would be detrimental to the security interest of the United States because of the fundamentally anti-Communist and anti-Russian orientation of the Swedish Government and people. The Swedish policy most favorable for US interests would be full membership in NATO, with acceptance of the responsibilities and the privileges of that body, but Sweden is not likely to take such a step in the near future. Even though Sweden continues to remain outside NATO, it is still important to the US to have Sweden remain as stable and as strong as possible.

If directly attacked by the USSR, Sweden would fight. Thus, a weakening of Swedish defensive capabilities reduces the military potential available for resisting aggression by the USSR. Moreover, a weakened Sweden would make the defense of Norway and Denmark more difficult and urgent for the NATO. Psychologically, a weakened defense establishment would reduce the Swedish people's will to resist. Another result of a weakened Sweden would be the underscoring of the defensive limitations and weaknesses of the Danes and Norwegians, which would probably: (a) cause Denmark and Norway to demand more and speedier military assistance from the US; and (b) arouse more vocal but still ineffective opposition to adherence to the NATO, especially in Denmark.

At the present critical time, when strategic exports to the Soviet orbit are being further restricted, increased Swedish trade with the Soviet bloc would be a backward step. Moreover, increased Swedish trade with the Soviet orbit would reduce Sweden's present contributions to European economic recovery and curtail shipment of important Swedish products now being received by NATO countries.

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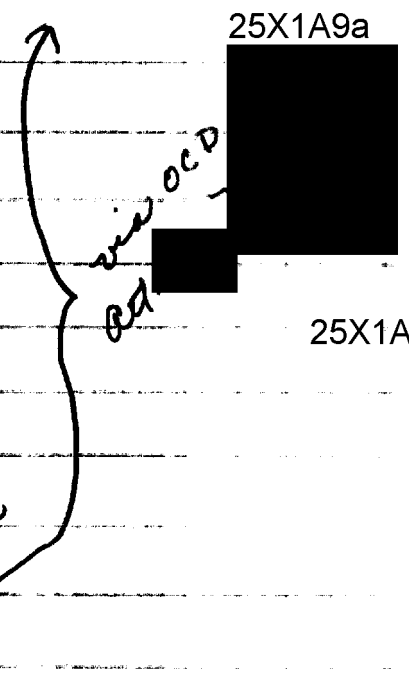
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