

# Security for sale

## Swedish guns to Russia in the 19<sup>th</sup> century

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### Resumé

Sverige har varit en av världens största vapenexportörer i många decennier. I den rollen har landet haft att hantera två skilda förhållningssätt och den tänkbara konflikten dem emellan: Hur ska statens säkerhet avvägas gentemot kommersiella villkor? Artikeln beskriver hur en potentiell konflikt mellan dessa förhållningssätt under 1800-talet betraktades och hanterades. Det gäller den svenska exporten av artilleripjäser till den militära huvudfienden Ryssland. Artikeln diskuterar hur denna idag tämligen otänkbara export kunde komma till stånd. Exporten kan ses som acceptabel bara på vissa villkor, men de var inte uppfyllda i detta fall. Den kommersiella logiken kom med andra ord att äventyra statens säkerhet.

SWEDEN HAS BEEN one of the world's largest exporters of weapons for many decades, and during this time only Israel has exceeded its per capita sales of weaponry.<sup>1</sup> In this capacity Sweden has had to deal with two major ideas and their possible conflict – state security and commercial logic. The story to be described and analyzed here is about a conflict between these ideas in 19<sup>th</sup> century Sweden.

### A security geography

At that time, Russia was Sweden's geographically dominant neighbor. It covered all the landmass east of Sweden and the Baltic Sea. This included Finland, which had been taken from Sweden in 1809, ending centuries of its being part of Sweden. Such a geopolitical background made it natural for the Swedish military system to see the threat as coming from the east. Its ultimate rationale should be to protect the country against an attack from the vast and great power that lay there.

To be sure, Russia was seen as the main enemy in military circles. An expression of this is that the move of the new king, Charles

XIV John, to establish a pro-Russian policy after Sweden's loss of Finland, was resented, not to say detested, by army officers.<sup>2</sup> A Russian attack was expected to come by sea across the Baltic, and the capital, Stockholm, was seen as a primary target.<sup>3</sup> One leading military thinker (and a future founding father of Sweden's general staff of the army) went so far as to conclude in 1860 that the slow Swedish mobilization system would make it difficult to defend the capital.<sup>4</sup> Here again, the obvious rationale for the Swedish military system is seen to be protection against the great eastern neighbor.

### A gun geography

One of the parts of the military system was gun production. It was a non-military part where the commercial logic came in, as production had been in private hands since the Thirty Years' War in the 17<sup>th</sup> century. At the same time the state held an eye on production. Directives in the 1830s said that an artillery officer should be present during "the casting and production".<sup>5</sup> That is, there should be



Figure 1. Sweden's iron cannons were produced outside of the main iron mining area at the time. (Cannon area in dotted circle. Beside Åker there was Finspång and Stavsjö). Illustration by the author.

a military presence throughout the process of cannon-making.

Swedish cannons were mainly of iron but were, curiously enough, produced outside of the main iron mining area. That area stretched in an east-west band across Sweden a bit north of Stockholm, while the cannon production sites lay further south and closer to the capital. There had been more than a half-dozen sites, but in the early 19<sup>th</sup> century only three remained.

This specific location of cannon production could have historical, social or metallurgical reasons. Historically, the crown had initiated cannon production and was likely to have wanted sites within reasonable reach from Stockholm. Socially, the cannon production area "swarmed with aristocratic families".<sup>6</sup> They would have had the resources needed

to run this rather capital-intensive kind of iron goods manufacturing.

There may also have been a metallurgical reason why cannons were produced outside of the main mining area. Cannon-making required iron ores, or mixes of ores, of special quality. This is illustrated in a contract with the Swedish government, where the ore was stipulated to come from five different mines, each contributing its precise share to the mixture.<sup>7</sup>

Around the middle of the 19<sup>th</sup> century the leading site for the production of Swedish (iron) cannons was Åkers Styckebruk. It could be reached from Stockholm by lake or land. Early in the century its cannon production had run into economic trouble, and a new manager had been called in around 1820. He embarked on what can be seen as a two-

pronged strategy. It consisted of first finding new markets for the existing products and then finding new products. Our interest here is mainly with the new markets – or rather with one new market – namely Russia.

## A new market – Russia

There is a considerable amount of documents concerning Russia in the Åker archive. Surviving contracts show a vast increase in gun barrel deliveries in the 1830s, as can be seen in the diagram below.

We see that the new market expanded rapidly, so that soon there were more deliveries to our main adversary than to our own armed forces. It was obviously good commercial logic to send hundreds of cannons to a power willing to pay for them. But how could such sales be accepted from a security point of view? For someone brought up in Sweden of the Cold War era it is an alien

idea. I can, however, think of three possible legitimations for the export effort.

Firstly, if the weapons were not of top quality they would present a limited threat to Sweden. Secondly, if they were of high quality, export was more dubious but could have been a price to pay to ensure the survival of the industry. A third possibility for accepting the export from a security perspective would be that the weapons were of a non-offensive character.

Regarding the first possibility we can see in the diagram that the Swedish armed forces bought Åker cannons along with Russia. The weapons were obviously seen to be qualitatively adequate for defending Sweden, and there is no indication in the Åker archive that the cannons sold to Russia should have been of a different and less high quality. On the contrary, some years after the massive deliveries recorded in diagram, the tsar offered gratifications to the workers at Åker



Figure 2. Cannon deliveries from Åker in the 1830s. Deliveries to Russia (solid line) as compared to deliveries to the Swedish army and navy (dashed line). From: *The Åker archive*, e:3.



Figure 3. Three kinds of cannons exported to Russia – heavy artillery (solid line), light naval artillery (dashed line), and light army artillery (dotted line). From: *The Åker archive*, e:11.1

“by virtue of the zeal displayed by them”, indicating how pleased he was with the craftsmanship behind the cannons.<sup>8</sup> So the first security legitimization possibility can be ruled out as an explanation of the export.

The second possibility means that exporting to Russia was seen as a temporary measure to overcome failing demand elsewhere – a measure to keep the people at Åker employed and not lose their manufacturing skill and competence, thereby securing future domestic deliveries of cannons. But we know that exports to Russia continued after the 1830s – albeit on a smaller scale. After the technological breakthrough recorded in Wahrendorff’s 1840 patent for breech-loading,<sup>9</sup> there seems to have been a shift from quantitative to qualitative acquisition; with sometimes contracts for only a single cannon.<sup>10</sup> So this was not a temporary measure as suggested by the second explanation.

A third alternative could be that the cannons sent to Russia had a purely defensive

character and couldn’t be used in an attack on Sweden. It is a hypothesis that needs careful analysis.

### A non-offensive export?

We can get an indication of the possible non-offensiveness of the cannons exported, if we look at what kinds of cannons were delivered. It turns out that they were of three kinds – heavy artillery, light army artillery, and light naval artillery.

Before proceeding, a technical comment should be made on the two diagrams presented, as the number of cannons in figure 2 for a specific year does not equal the number in figure 3. (For instance the number of cannons has a peak for 1837 in figure 2 but according to figure 3 there were no cannons exported that year). The reason for the discrepancy is that figure 2 shows cannons delivered, while figure 3 shows the number of cannons in contracts. Between the signing of a contract and actual delivery of the contracted goods

more than a year could pass. Sometimes the casting did not give the desired quality and had to be done again.

Inspecting and test firing the cannons could also take time; as could possibly negotiations over contractual details. If these procedures had not been completed before the end of the year, the Gulf of Finland would be blocked by ice and it would take well into the next year before the cannons could be shipped.

One kind of cannons exported was heavy artillery, which is here seen to comprise cannons shooting 24 pound cannonballs (“cansons de 24” in the wording of the contracts). This kind of artillery would tend to be heavy and difficult to move and employ in an offensive campaign, so it might be seen as defensive; But only for the army. If the cannons were mounted on naval vessels it was a different matter. They would then tend to be a threat to Swedish naval forces and coastal installations.

Another kind of cannons exported was the light army artillery. It consisted of two types called mortars and licornes. Mortars were typically used to shoot over the protecting walls of a fortified place. They were generally much smaller and lighter than other types of artillery and could therefore fairly easily be brought along on an offensive campaign.<sup>11</sup> The licorne was a Russian hybrid between the high-shooting mortar and the far-shooting ordinary cannon. It had been used in the Russian field artillery,<sup>12</sup> so this type too would probably have been useful in an offensive role against Sweden.

The third kind of cannon exported was a light naval artillery piece called “carronade”. Judging from a description of it as “a short-range naval weapon with a low muzzle velocity for merchant ships”, it was not much of a naval threat. It is, however, said to have found a niche role on warships.<sup>13</sup>

A preliminary conclusion to be drawn from these descriptions is that the pieces exported were probably partly, but not completely, of an offensive character. How much of a threat to Sweden they represented is difficult to assess, but to the officers at the time you would expect the cannon sales to have been a matter of concern.

## A possibility to find an answer

In the late 1850s an opportunity arose to obtain more definite evidence about the eventual offensive role of the Åker cannons in the Russian military system. It was when Sweden sent its first military attaché to St Petersburg. Here was a chance to investigate on site both Russian military potential in general and, more specifically, whether the Swedish military equipment exported could present a threat to Sweden.

The attaché started reporting in autumn 1858, and in one year he sent home as many as 30 reports about the situation in Russia. Coming back in the summer of 1860 he wrote five more reports. The communication with high-level Russian representatives he refers to is written in French, which may mean that his own knowledge of the Russian language was limited.

On the more general question of Russia’s military potential the attaché made a number of interesting observations. He noted that infantry units were being equipped with up-to-date rifle technology “on the widest scale”.<sup>14</sup> The modernization is confirmed some years later, when he reported that the whole Russian army had been provided with rifles of the French Minié type.<sup>15</sup>

A guided tour in the St Petersburg arsenal with its bronze cannon production convinced him that this was “a magnificent installation”. In other words the arsenal seems to have been a place for making good quality products.

It also held modern products – the attaché saw two Krupp steel cannons being bored for rifling. Russia’s own iron cannons were made at another site, Petrozavodsk on lake Onega, which had a canal system linking it to S:t Petersburg. The attaché noted that the Petrozavodsk cannons of late had been made “with special care” – once again indicating a Russian capacity for quality output. The attaché found this fact lamentable, but not with regard to Sweden’s security. Instead, he saw the quality of the Russian iron cannons as something to be lamented with regard to the diminishing sales possibilities for Swedish cannon makers.<sup>16</sup>

Even if he was an army man, the attaché also had things to say about the navy. When he got an opportunity to see the naval port of Kronstadt close to S:t Petersburg, he gave a detailed account of the visit. The fleet of steam vessels there is said to consist of 19 ships, with two of them having as many as 130 cannons each. He sees a steam frigate equipped with a couple of the “in America famous Dahlgren cannons” – another indication of a Russian interest in modern military equipment. In an overall assessment of the Russian navy’s conversion to steam he finds that: “the orders laid in foreign countries, the zeal with which work at home is carried out, and the generosity with which steam ship companies are encouraged give sufficient evidence of a serious resolution to give this weapon a respectable strength”.<sup>17</sup>

In another report, he notes that the navy (and not only defensive fortifications) had been supplied with Petrozavodsk iron cannons.<sup>18</sup> He also reports about plans being proposed for a new naval port at the mouth of the Gulf of Finland. Such a location is said to be “without doubt rather advantageous”.<sup>19</sup> You might wonder about the attaché’s perspective here, as the advantage would be to Russia. To Sweden, having the Russian navy

located much closer to its coastline would rather emphasize the threat of a sea-borne invasion.

Even if the information was not alarming, the attaché showed Russia to be in good shape militarily, exceeding his expectations.<sup>20</sup> Moreover, it was steadily modernizing. The impression of his data is that the threat from the east should not have been taken lightly.

On the more specific question, whether the military equipment exported could be a threat to Sweden, the attaché had very little to say. He comments, in passing, that in the Russian field artillery utilized “as is well-known, only metal cannons”;<sup>21</sup> with “metal” here used as a name for “bronze”. This is a rather perplexing comment. To my knowledge Åker only delivered iron pieces, and the mortar and licorne types were designed for field use. The insertion of “as is well-known” indicates that the attaché has not investigated the matter himself. Neither do we get any information about the caronades exported.

About the export of heavy artillery, we learn just a little more. In a report, it is noted that the Russian navy has bought a piece of Åker’s new breech-loading technology and found it quite useful.<sup>22</sup> The navy’s positive attitude indicates that new breechloader orders might come. How should Sweden respond to such requests?

To the attaché the answer to the question is clear: It is to be wished, says he, “that our cannon foundries summoned all their strength and introduced the improvements of other countries in the mode of production to be able to retain the confidence, which has hitherto made way for profitable sales abroad, without which it would hardly be possible for them to continue an activity of such great importance to Sweden and its defence”.<sup>23</sup> In this sentence the attaché



refers both to profit and defense – that is, both to commerce and security. But they are not equally important. What he proposes is, in my reading, that Sweden should make every effort to sell top quality weaponry to Russia – regardless of its threat potential to Sweden. This is a remarkable comment to come from a representative of the Swedish state security system.

## The power of commerce

Let us summarize. Russia was the main security threat to Sweden. It was close, vast, and potentially resourceful. Still, cannons were exported there in the 19<sup>th</sup> century. To me, employed as a defense analyst in Cold War Sweden, it is an amazing piece of information that calls for an explanation. How could Sweden sell weapons to its main adversary?

Looking closer there seems to be two problems involved in the case presented. Firstly, how could Sweden ever embark on a Russian sales endeavor? Secondly, why did it not come to an end, when a military attaché got a chance to look into the matter and assess the threat potential on site? Let us look at the first problem first – the rise of the cannon export to Russia in the 1830s.

We must concede that the export could have been fairly unproblematic to the security of Sweden. If the equipment exported could be classified as defensive, it should have been militarily acceptable. A preliminary analysis of the kinds of cannons exported indicates, however, that most of them did not have that character. Most probably they had an offensive potential. The character of the cannons can therefore hardly explain why it was accepted to have them exported.

Two other possible legitimations of the export are discussed in the text – that the cannons would have been of poor quality

and therefore harmless to Sweden; or that the export to Russia was a temporary measure to ensure the survival of cannon production. Neither is seen to hold as an explanation of what occurred.

We know that the Swedish cannon foundries were private enterprises. Their owners' primary obligation was to the foundry and its workforce and from that perspective any sales opportunity was welcome. The owner could not be expected to have a military background or defending the principle of state security. His guiding light was the commercial principle.

On the other hand, officers of the armed forces were employed to be guided by the state security principle. There was an officer surveillance and control system for cannon production and therefore a military insight into what went on. Why then did the military representatives not veto cannon sales to Russia? One possible explanation is that the king had adopted a pro-Russian stance and, with the foundry manager well connected at court, military objections could have been felt to be futile. However, if there had been concerns within military circles, the subject of weapons export could at least have been discussed internally. Army officers could have voiced their objections or doubts in the journal of the Swedish War Academy, and navy officers could have used their professional journal for a similar purpose. But looking through the journal issues of the 1830s I have found nothing more than a mention of the fact that Russia “had found it to their advantage” to buy cannons from Sweden.<sup>24</sup> The rule of commerce was not questioned.

## Coming close – but not seeing

When Sweden sent out a military attaché to Russia in the late 1850s, it represented a

chance to find out more about the military might of the eastern neighbor – and especially to what extent the cannons exported from Sweden could contribute to that might and enhance the threat to Sweden. The attaché, however, only took on part of this task, when he sent home information regarding Russia's modernization of infantry, artillery and navy but communicated next to nothing about where and how the empire's Swedish cannons were employed.

The attaché took great pleasure in hearing that his reports were read and appreciated by the king as well as the minister of terrestrial defense to which his reports were addressed.<sup>25</sup> The king's interest could be attributed both to his former role as head of the artillery and to a friendship with the attaché, who had been his aide.<sup>26</sup> This possibly complicated the military chain of command to the attaché and can have made him receive fewer (military) instructions about what to investigate than he would otherwise have had. In other words, it might have weakened the security perspective link. As noted above, the manager of the site where the cannons were cast also had a background at the royal court, and this might have made the commercial principle more prominent at the expense of the security perspective.

Another possible explanation for the limited investigation of the Russian threat could be found in the way the attaché was received in S:t Petersburg. He describes how amiable the tsar was to him,<sup>27</sup> and when the mobilization of four Russian army corps made others apprehensive, he assured them

of the tsar's peaceful intentions.<sup>28</sup> He was obviously flattered by the attention from the sovereign, and he might have extrapolated from the tsar's manners toward him, that Russia could be trusted to behave well in relation to Sweden.

Personal influences thus may have turned the attaché's focus away from pursuing a security perspective. But he went further than losing a security focus, when he actively recommended his country make every effort to sell top quality weaponry to Russia. This recommendation clearly violated a basic rule of thumb of security policy: Don't sell weapons to your main adversary!

Should we from his recommendation conclude that the attaché was out of his wits and that Sweden made a deplorable mistake when electing him as its first military representative abroad? I think not. He appears to have seen cannon production to be in the commercial realm, despite its state security consequences. Other representatives of the military system seem to have held the same view. I think the story illustrates the power and quantitative appeal of the commercial logic and how it tends to affect the perspective of anyone coming close to it. Even today we have to be wary not to be carried away by its power.

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## Notes

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