Journal of the Spanish Institute for Strategic Studies
ISSN-e: 2255-3479

Jorge D. Alcaraz-Pérez Ros
Lieutenant Commander of the Navy (on leave). Graduated in Political Science and Administration with a Master's degree in War and Conflict Studies from the University of Potsdam

Mail: jorgedalcarazpros@gmail.com

British signals intelligence on Argentine naval communications in the Falklands War: procurement, processing and foreign collaboration

Abstract

Although the interception of Argentine naval communications by British intelligence in the Falklands War played a decisive role in the conflict, many questions, such as those related to its scope, its real relevance in the conflict, and almost everything related to how these interceptions took place, remain unresolved today. The purpose of this article is to advance in the understanding of these questions, in the absence of a declassification of the official documentation on the subject. To this end, we analyze the most probable means of acquisition, the intelligence activity prior to the Argentine landing operation and try to contextualize it with the most recent information related to the cooperation in intelligence matters between Americans and British in the past decades, since it seems to offer a powerful explanatory framework to understand how the services involved operated. In this way, it is intended to provide criteria to evaluate, or re-evaluate, more precisely the factors that decided the outcome and conditioned the development of the war.

Keywords

SIGINT, GCHQ, NSA, satellite.

Cite this article:

Alcaraz-Pérez Ros, J. D (2025). British signals intelligence on Argentine naval communications in the Falklands War: procurement, processing and foreign collaboration. Journal of the Spanish Institute for Strategic Studies. 25, pp. 545-572.

1 Introduction

Although the acquisition of naval communications intelligence in the Falklands War by the British had a decisive impact on the development and final outcome of the conflict, there are still large gaps in knowledge on this subject. In the body of works and studies on the conflict, the account becomes diffuse with regard to data on the means, ways of obtaining and collaboration of the United Kingdom with other countries in this work.

In general, the nature, provenance and manner of obtaining certain information that was at the basis of key actions and decisions is generally avoided or omitted, and any clue dies in a generic reference to British intelligence. Obviously, there is no more publicly accessible data. It is normal for States to jealously guard information relating to their intelligence operations, actions, means and personnel, and we will only have full access to it when it is declassified.

However, it is known that a large part of the messaging between Argentine units at sea and their commanders was intercepted, evaluated by the UK intelligence and used by the UK government, as well as by the deployed force, in its planning and decision making. A significant example would be the messages from April 29 to May 1, including that of May 1, from Admiral Gualter Óscar Allara, commander of the Argentine task force, embarked on the aircraft carrier *25 de Mayo*, ordering to initiate the attack on the British fleet, with important information regarding plans, intentions and positions of the Argentine units (Freedman, 2005: 233, 242-243).

Among the most prominent users of signals intelligence were the *Royal Navy*'s nuclear submarines (SSNs). According to Admiral Peter Herbert, the commanding officer of the UK nuclear submarines, "GCHQ Cheltenham was by far the most important source of intelligence on Argentine naval forces. Their contribution was invaluable to the success of the submarine campaign" (Herbert, quoted in Sciaroni, 2019: 43), i.e., GCHQ (*Government Communications Headquarters*), responsible for signals intelligence, was the main source of information for British submarines. Numerous indications point to the fact that this information would have been more than enough to intercept and sink the cruiser ARA (Armada de la República Argentina) *Belgrano* (Rossiter, 2008: ch. 10; Freedman, 2005: 233, 242-243; Jinks and Hennessy, 2015: ch. 7), the second largest ship of the Argentine Navy, despite the fact that the British almost certainly had more sources[1]. The aircraft carrier *25 de Mayo* was in serious danger of being located by nuclear submarines on several occasions (Freedman, 2005: 233, 243; Jinks and Hennessy, 2015: ch. 7), largely for this reason, and it was also a signal intercept that launched the search for the submarine *San Luis* by another SSN (Sciaroni and Smith, 2020: 29; Jinks and Hennessy, 2015: ch. 7). In

1 For example, the probable communication to the British authorities of the departure of the Belgrano from the port of Ushuaia, which will be discussed later; the use of satellites or other means cannot be ruled out either.

addition, the movements of some ships transiting off the Argentine mainland coast were being monitored by British intelligence and passed to submarines in the area, apparently with information from similar sources. Intelligence data, such as that one of the ships had a damaged shaft, or that they were heading to specific areas (Jinks and Hennessy, 2015: ch. 7), indicate that this may not be imagery or radar information, but espionage or, most likely, intercepted messages.

Most of the captured messages of which we are aware, having affected in some way the course of the war, had common characteristics. They are communications between commanders, on land or at sea, and units at sea, with information concerning plans, intentions, orders, *rendezvous* points, areas of operations, as well as unit reports, evaluations and other information from units to these commanders. Messages of an operational, rather than tactical nature, which offer a more general perspective and in which the sender and receiver are far apart and, by the latter, we can deduce that they are high frequency (HF) communications.

This paper aims to advance in the understanding of how British intelligence managed to penetrate the Argentine Navy's communications system, and to what extent. In order to narrow down the study, the paper will focus on the scope and relevance of the means most likely used to obtain this type of intelligence and on the support received by the United Kingdom in this area. Despite the contribution of important European nations in the field of signals intelligence and other types of intelligence, the paper will mainly deal with the collaboration with the United States as it is a fundamental piece to understand its way of operating.

The study makes use of information that has emerged in recent years on U.S.-U.K. collaboration in this facet of intelligence over several decades. It also takes advantage of an interesting circumstance that allows to reduce the possible options to a few. It is the significant interceptions by British intelligence that occurred before the seizure of the islands by the Argentine Navy, and long before the deployment of the *Royal Navy* in the area.

This work presupposes a certain knowledge of the reader about the conflict, the geography of the area, the historical and geopolitical circumstances in which it took place and, ideally, about principles of naval communications, so it does not delve into facts or topics of general knowledge and easily accessible. Nor does it delve into topics that, although related, are not the focus of the study, mainly the interceptions of March 1982, except insofar as they are relevant to the analysis.

2 Some unknowns about the satellites

In November 1986, U.S. Navy Admiral Harry Train gave lectures at the National Defense College, the University of Belgrano and the Naval War College in Argentina. The admiral had been commander in chief of the U.S. Navy's Atlantic Fleet, i.e., he had command of the U.S. forces in the area where the conflict took place (Train, 1987). Much progress has been made since then in the knowledge of

what happened in those weeks in the South Atlantic. Many of the unknowns that still existed in the years following the conflict, some of which were raised in the post-conference discussions, have been resolved over the years, but others are not fully clarified today.

One of the questions the admiral was asked, and for which there is still no clear answer today, had to do with the alleged support, on the part of the United States, to the British, with information from its own satellites. According to Train, the satellites used by both countries were purchased jointly, so the United Kingdom would have the same right as the United States to use them for whatever it deemed necessary. The admiral focuses on imaging satellites (Train, 1987: 254). While these might provide information from a fleet at any given time, their usefulness for tactical level employment, he argues, would be low. However, while it is true that tactically this information may be of little use, as it would arrive late, because of the processing time required, and that it provides little data on future intentions, it could also lead to a more detailed search with reconnaissance or maritime patrol aircraft, although we know that the British fleet lacked these. If the located force remained for a while in the same area, a few days, because it was close to a base, training or as part of a plan, and this was, more or less, the situation of the *Belgrano*, a nuclear submarine could be deploy that could relocate it with its own sensors. Even better if the satellite can update the position regularly. The thing changes if it is a force in transit that protects itself with changes of course and speed so as not to give away its intentions to the satellite.

The admiral also mentions radar satellites and states that they were not available at that time; moreover, they were not very developed, and their use would need to be complemented by other means of collection, such as imaging or electronic warfare satellites to allow some kind of identification or classification of contacts.

The aforementioned officer also explains the possibility that electronic warfare satellites could give an approximate idea of where enemy ships are located, as long as they were emitting some type of electromagnetic radiation, coming from radars or communications equipment, while insisting again on the impossibility of obtaining movement information by these means, much less in a reasonable time for tactical use (Train, 1987: 238, 254-255).

However, and based on the above argumentation, one of the interlocutors asks a question that shows that the admiral has not told everything. Indeed, if, as he stated, no satellite information allowed to obtain naval tactical information, such as kinematic data (related to course and speed) and much less about intentions, how did the United States and the United Kingdom know, days before the execution of Operation Rosario (the Argentine amphibious operation by which the islands were taken), the direction of the force and that a landing was about to be carried out imminently? Evidently, the admiral's answer did not provide anything new, or he did not want to go deeper into the subject, simply conjecturing that it could be related to electronic interceptions, without specifying, for example, what kind, let alone what or who could be intercepting them.

3 Imminence of the landing

Since mid-March 1982, incidents related to the presence of Argentine workers in South Georgia, a British possession some 700 miles from the Malvinas Islands, had been escalating in intensity until they generated, especially from the 19th, a diplomatic uproar to which the Ministry of Defense was not indifferent. On Sunday, March 28, the British Minister of Defense, John Nott, was reading at home an intelligence report of the previous day, according to which there were indications that all the submarines of the Argentine Navy had put to sea, which was true for the submersible *Santa Fe*. When he read the report, he did not think that the Malvinas were under any threat, but that the situation in the Georgias was worse than they believed (Rossiter, 2008: ch. 6; Mayorga, 1998: 60; Nott, 2002: 252).

However, that same day, the 28th, British intelligence intercepted a message addressed to the *Santa Fe* that would be analyzed the following day. It was ordered to go to some coordinates and carry out a reconnaissance of the beach in preparation for a landing; the coordinates indicated a point located, not in the Georgias, but in the vicinity of Puerto Stanley (later renamed Puerto Argentino) (Rossiter, 2008: ch. 6). That same day the bulk of the Argentine fleet set sail with the mission of taking control of the Malvinas Islands as part of Operation Rosario. On the 30th, Admiral Allara, after meeting with his commanders, decided to change the date of the landing from April 1st to April 2nd due to the terrible weather conditions (Mayorga, 1998: 60-61). On the 31st, Rear Admiral Büsser, commander of the landing force, sent a message to Buenos Aires communicating the postponement of the landing, but this message was also intercepted. The GCHQ, the government's signals intelligence agency and British counterpart of the American NSA (*National Security Agency*), decoded it and delivered it to the various government departments (Rossiter, 2008: ch. 6).

Parallel to the worrying flow of information pointing to an even greater source of tension in the Malvinas than in the Georgias, the first decisions were not long in coming. With Margaret Thatcher's approval, on the same day, the 29th, it was agreed to deploy nuclear submarines to the South Atlantic (Rossiter, 2008: Prologue). The SSN HMS *Spartan*, which was on maneuvers in the waters near Gibraltar, received a strange message on the submarine telephone from the frigate HMS *Brilliant*: it told her to head for Gibraltar immediately; there she would receive detailed instructions. In addition, he would embark provisions, torpedoes and other material to put to sea on March 31 bound for the Malvinas; it should be noted that this was his destination, not Georgias (Jinks and Hennessy, 2015: ch. 7).

On the morning of the 30th, John Nott gave the order to enlist a second submarine: HMS *Splendid* aborted her mission to follow a Soviet nuclear submarine in the North Atlantic and headed for her base at Faslane in order to prepare for deployment to the Falklands. That afternoon, a third submarine, HMS *Conqueror*, which was at the base ready to enter a five-week maintenance period, received a call from the duty officer at the base announcing that the ship had orders to enlist for war (Nott, 2002: 253; Rossiter, 2008: ch. 1).

On the afternoon of March 31, the same day that the message from Rear Admiral Büsser was intercepted, revealing the date of the landing, John Nott received a *briefing* in his office in the House of Commons in which he was given clear evidence that on April 2 there would be an Argentine landing in the Falklands (Nott, 2002: 257; Aldrich, 2010: 397-398). It was on that same day, March 31, two days before the Argentine landing, when Henry Leach, the First Sea Lord, meeting with Margaret Thatcher and John Nott, proposed to the Prime Minister to send a fleet to recover the islands, since defending them from invasion would not be feasible. Leach relied on an intelligence report that assessed the situation and for which more information was available than previously stated (Rossiter, 2008: ch. 6).

However, simply the messages ordering the submarine to proceed to a point near Port Stanley for a preliminary reconnaissance and especially that of March 31, confirming the start of operations for April 2, would have more than justified the measures that were taken: sending three nuclear submarines, because of the possibility of an Argentine landing, and the decision to send a fleet, once it was confirmed that the landing would take place, with a specific date and with the ships involved already at sea.

British intelligence had more information at the time of writing the report, which undoubtedly helped to reinforce the landing hypothesis, providing a more general and consistent view of the situation, and ruling out, for example, that it was some kind of deception operation. Also, it should have helped the intelligence analysts to counter the argument that it would probably come to nothing, as had happened in previous years. The dispatch on 20 March of the *Endurance* (Freedman and Gamba-Stonehouse, 1991: 52-53; Prince, 2002), which was in Port Stanley, to South Georgia in order to evacuate Argentine personnel provoked the response of the Argentine military junta, which deployed several ships to prevent it. The United Kingdom put its intelligence services to work and sought support from those of the United States: the situation was becoming more confused (Gavshon and Rice, 1984: 44; Keegan, 2003: Epilogue). The British had closed their MI6 station in Buenos Aires for budgetary reasons, on which the CIA depended for human source intelligence (HUMINT) (Hastings and Jenkins, 2011: ch. 3; Keegan, 2003: Epilogue).

Nevertheless, they were not as uninformed about Argentine movements as some sources, especially British, imply. GCHQ and the NSA had detected a noticeable increase in the volume of radio communications traffic in the South Atlantic since mid-March, caused not only by Argentine ships, but also by Chilean vessels (Aldrich, 2010: 395; Keegan, 2003: Epilogue).

The Argentine Navy was conducting annual exercises with the Uruguayan Navy; from March 17 to 25, a large part of the Argentine fleet was at sea for this purpose (Facchin, 2022: 71; Hastings and Jenkins, 2011: ch. 3, Appendix D) and, between March 24 and 25, the GCHQ intercepted a message in which Admiral Jorge Isaac Anaya ordered, from Buenos Aires, to detach the corvettes ARA *Drummond* and ARA *Granville* to a point between South Georgia and the Falklands to intercept *the Endurance,* which was already in the vicinity of Georgias. Also, between the 24th

and 25th more Argentine signals are captured with intelligence information about the *Endurance* and the *Royal Marines* (Aldrich, 2010: 395; Freedman and Gamba-Stonehouse, 2011: 88; Hastings and Jenkins, 2011: ch. 3; Middlebrook, 2012: ch. 2; Rossiter, 2008: ch. 3).

On the other hand, British intelligence, as stated earlier, had access to other sources of information outside signals intelligence. In an assessment of the situation, available to ministers on the 28th, various facts were reported. Leave in the Argentine Navy had been cancelled, supplies and equipment had been sent to the naval bases at Puerto Belgrano and Comodoro Rivadavia and, at a meeting of high-level diplomats in the Ministry of Foreign Affairs, Minister Costa Méndez had reported that the decision had been taken to capture the Malvinas. At the same time, Argentine embassies had been ordered to cancel Easter leave and await developments. However, despite providing a series of consistent indications, none of this implied that the invasion was imminent (Hastings and Jenkins, 2011: ch. 3); for this, the messages intercepted and referred to above, with references to concrete actions and dates and with a fleet already at sea, were decisive.

4 Procurement

Given the critical importance of this type of interceptions, it is worth analyzing under what circumstances they took place; specifically, how British intelligence was able to access these signals, despite the cuts that were taking place in different areas related to defense, the remoteness of Argentina and the absence of infrastructure and resources in the region. An achievement that, at first sight, seems beyond the reach of any nation that is not a superpower and that, undoubtedly, tipped the balance of the conflict in favor of the British.

One of the first occasions in which the exploitation of the electromagnetic spectrum in the South Atlantic by British intelligence can be noted took place more than a week before Operation Rosario, during the escalation of tension in Georgias, even before the Board gave the order to start the operation and at a time when it was not even considered advisable to send a nuclear submarine to the area. In this regard, Vice Admiral Herbert did not see it reasonable to send a nuclear submarine to the South Atlantic, even later than March 29, for a few junkyard ships in Georgia (Rossiter, 2008: Prologue). But somehow, both the NSA and GCHQ had detected a rapid increase in the volume of communications traffic due to maneuvers by the Chilean and Argentine Navies, which occurred again on the 31st (Aldrich, 2010: 395-397; Keegan, 2003: Epilogue) and, on about the 24th, the message ordering two corvettes to detach to South Georgia was intercepted.

So, who could be intercepting these signals? If we focus on those of the 24th, the only British ship of certain relevance in the South Atlantic and with the capacity to intercept electromagnetic emissions (SIGINT), was the *Endurance*, but it had sailed around the 21st heading for Georgia, and on the 24th it was in this area, more than 1000 miles southeast of Mar del Plata, in whose proximity the corvettes were located

(Mayorga, 1988: 46). The fact that they were close to the coast implies the possibility that communications had been made in UHF, VHF or HF with low power or discrete modes, which would limit the possibility of interception to a few hundred miles centered in this part of the Argentine territory. In addition, the *Endurance* had not been detecting more than signals of little interest from the beginning of the crisis in Georgia until the date of the invasion (Aldrich, 2010: 396).

Could they have been North American SIGINT satellites? The truth is that they do not seem to be good candidates either. For the United States, Argentina was not a priority intelligence target, at least in purely military matters, in which it was justified to invest scarce satellite resources. But all indications are that at least one VORTEX satellite, probably the one put into orbit in October 1981, provided information to the British. This series of satellites was primarily intended to obtain signals intelligence (SIGINT), mainly Soviet strategic communications (Day, 2022); in the case at hand, they could have seamlessly intercepted radio frequency communications between the Argentine command and its forces, including messaging, and specifically communications with naval units at sea, if they had been used for that purpose. One of the great advantages of the use of satellites over ground stations or units at sea is their ability to intercept emissions at the higher frequencies, i.e. UHF (Ultra High Frequency) and VHF (Very High Frequency)[2]. However, in 1982, the Americans had not achieved global coverage with their spy satellites, and it was not easy for the British to get this kind of support from their greatest ally. At the time, the Reagan administration was intercepting communications in Central America with this type of satellite, the region closest to the South Atlantic covered with them. A British GCHQ officer who liaised with the NSA stated that "We had to negotiate very hard to get it moved, and then only for limited periods" (anonymous officer, quoted in Urban, 1996: 57), i.e., it was necessary to negotiate very hard to get the Americans to agree to move them, and only for short periods of time. During these limited windows of a few hours at a time, only GCHQ would monitor signal traffic, and report back to the NSA if there was anything of interest (Aldrich, 2010: 441; Urban, 1996: 57). While it seems undoubted that this collaboration took place, it is unlikely that it occurred before April.

It was only at the end of March that Thatcher's cabinet began to pay attention to the crisis in South Georgia, but they were not yet even considering a crisis over the Falklands. On the 19th, at the start of the crisis in Georgia, the Commander of the Fleet was instructed to investigate the possibility of sending ships to the Falklands, rather as a show of British resolve, but nothing urgent: a deployment in the next nine months was considered adequate. The conclusions were little short of disappointing, as any option would be too costly (Rossiter, 2008: ch. 6). It is possible that the type

2 These emissions propagate in a straight line and are limited to the horizon (a few tens of miles), once passed, they continue in a straight line into space. Only aircraft flying very high and relatively close to the source, or satellites, could intercept them due to the curvature of the earth. Lower frequency waves, such as HF, refract in the atmosphere and can propagate following the curvature of the earth, reaching ranges of thousands of nautical miles.

of conflict they expected, low intensity, something akin to the South Thule crisis in 1977 (Rossiter, 2008: ch. 6; Hastings and Jenkins, 2011: ch. 2), hardly compensated for even a minimal deployment.

The nine-month deadline relates to the assessments and estimates of bodies such as the Joint Intelligence Committee (JIC) on the status negotiations with Argentina. As of June 1981, the JIC estimated that, if the Board perceived that London was refusing to seriously include the issue of sovereignty over the islands in the negotiations, it would resort to more coercive means, being able to act even without notice, although it would most likely escalate gradually with more limited measures. Already at this stage it was considered that it would be very difficult and very costly to provide a military response to many of the actions Argentina might take to exert pressure (Freedman and Gamba-Stonehouse, 1991: 17-19). By the end of 1979, the Foreign Secretary, Lord Carrington, had already stated that the attitude of conceding nothing on sovereignty carried with it a serious threat of invasion. However, in February 1982, a series of reports that ended up on Margaret Thatcher's desk provided more concrete information. They already warned that, during that year, a confrontation, almost certainly military, seemed inevitable with Argentina (Gavshon and Rice, 1984: 18-31). If it occurred, the intelligence estimated that it would most likely take place at the end of the year, after a gradual increase in tension (Hastings and Jenkins, 2011: ch. 3).

In this scenario, which we can estimate would start to change from March 28 and, above all, from March 31, it is doubtful that the GCHQ was pressured to negotiate with the NSA the reorientation of its satellites, starting on the 19th and obtaining the first relevant intercepts on the 24th, two days before the first orders were given to invade Malvinas, and only one day after the invasion was decided, which was supposed to be a secret decision, and moreover in the reduced daily windows of use; even more so when they gave themselves nine months to take action. The very decision to send the *Endurance* to Georgia had been made by the Prime Minister without consulting anyone else. With the possibility of a confrontation still seen as remote, Admiral Terence Lewin, Chief of Defence Staff, had no problem in traveling to New Zealand at that time, after endorsing the Prime Minister's decision regarding the *Endurance* (Prince, 2002).

On the other hand, the US Secretary of State, Alexander Haig, had assured President Galtieri that reports that the United States had provided the British with intelligence and satellite information were not true. This conversation took place in early April, after the revealing intercepts of March (Day, 2022; Freedman, 1986: 314). Haig would later reassure again that they did not provide intelligence support before the collapse of the negotiations, which occurred on April 30, when he announced that the negotiations had failed and that the United States would support the United Kingdom (Haig, 1984: 293, 296). However, it should be borne in mind that the public or private statements of political leaders during the war, or even afterwards, should not be taken at face value; it is not usual for them to lie, since they would lose credibility for later occasions, but neither do they provide, evidently, precise or clear information; the truth is that reality is much more complex and allows playing with language. In fact, as we shall see, Haig was not entirely lying when he said that he

had not supplied intelligence to the UK, but it is also certain that, without the US, the British would have had access to little more than weather information messages, as far as naval signals intelligence is concerned; it is also very likely, as we have been arguing, that they would not (yet) have provided satellite information; which would be more understandable if there were already other less scarce and cheaper means of obtaining it available. This last reason, that the US and UK had other cheaper and more abundant means of obtaining signals intelligence, is, in fact, postulated as one of the main arguments as to why satellites were not resorted to.

But, if it wasn't the satellites, what could be intercepting communications traffic these days?

The next option to consider is electromagnetic signal search stations. The NSA had an extensive network of such stations in different parts of the globe, and they would certainly account for much of this kind of interception, especially with regard to naval communications. In the early 1960s, while the Soviet Union was little less than surrounded by ELINT stations, there was hardly any coverage in South America; among the closest would be Panama and Puerto Rico. During the conflict, there would also be Ascension, a CGHQ post run by some thirty professionals (Bamford, 1987: 274; Freedman and Gamba-Stonehouse, 1991: 86), and stations on the Dutch island of Curaçao, operated by Dutch and possibly Americans, which did operate on the island at least in the 1960s, and which appears to have been able to achieve some results during the conflict (Wiebes, 2005: 262; Platje, 2005: 311).

But it seems more realistic to think, given the great efficiency in interception, that this took place in closer posts. According to some sources, U.S. tracking stations in southern Chile would be responsible for most of this type of interceptions (Freedman and Gamba-Stonehouse, 1991: 131; Hastings and Jenkins, 2011: ch. 3 and 8). The truth is that they would not only explain the detection of signals of Chilean and Argentine maneuvers and key messages in early stages, but would also be an option that would more reasonably guarantee, during the war, the obtaining of signals continuously and without time limitations, as would be the case of satellites or aerial means such as the Nimrod, although this type of reception has other disadvantages.

Going further into this hypothesis, the border area between Chile and Argentina in the south was also a focus of tension at that time. Disputes over the Beagle Channel had almost brought the two countries to war in 1978 and, as of January 1982, the dispute reached another peak of tension. The Argentine government moved troops to the border with Chile and relations between the two countries hit rock bottom (Hastings and Jenkins, 2011: ch. 3).

Argentina had sought problems with Chile and the United Kingdom practically at the same time, in the Beagle conflict with the neighboring country in 1978 and in a first crisis with the British over the South Thule Island in 1977, which undoubtedly marked the strategy to be followed by the latter regarding the South Atlantic dispute in the following years. It would not be unreasonable to think that the British would have approached Pinochet's regime offering collaboration in the face of a common threat from 1978 onwards.

British intelligence, conditioned by the 1977 crisis, was guided by a few principles regarding the Malvinas and Georgias. On the one hand, at the beginning of 1982, it believed that, if there was any military pressure on the Malvinas, it would not take place before the end of the year, and that it would be preceded by clear diplomatic signals, such as pressure at the UN and public statements highlighting the lack of involvement of the United Kingdom in the resolution of the dispute. On the other hand, the British intelligence community felt pressured by the fact that it had raised the alarm in 1977, with much more tension than they expected for the incident in South Georgia, without Argentina actually having any invasion planned, and did not want to be exposed again; for that it would have to have more solid criteria. Finally, he felt that Argentina should not be responded to in a way that might push the country into a pre-emptive attack before they were prepared to deal with it (Hastings and Jenkins, 2011: ch. 3); interestingly, this seems to be what finally happened with the dispatch of the *Endurance* to South Georgia.

With respect to the first estimate, that any military pressure would not take place before the end of the year, it can be said that his assessments were not far off the mark. At the end of 1981, Admiral Anaya, then commander-in-chief of the Argentine Navy, commissioned Admiral Lombardo, during a brief meeting in Puerto Belgrano, in person, to plan the recovery of the islands. As Anaya told him, the intention was indeed to exhaust the diplomatic route, underway at that time, and to resort to military means only if it failed; initially a deadline was set to be ready to operate between July and August (Aldrich, 2010: 393; Gavshon and Rice, 1984: 28-30; Mayorga, 1988: 38-41, 57). Taking into account the reports of February 1982 and the intentions expressed by the Argentine admiral, it seems difficult to think that the British intelligence was not at least partially aware of the intentions and movements of the Junta, and especially of those of Anaya in this regard, since they could hardly have estimated such a specific date limit without knowing the intentions of the Junta, or of its members, which was the only authority with the power to initiate the necessary actions for an invasion and according to its will. In this regard, it is interesting the account of the then commander of the *Endurance*, Nick Barker, who insists on the warnings he received from the Chileans during his visit to Punta Arenas, at the end of January, that the Argentine intentions were not at all friendly. According to him, the Chileans would have been the first to discover Anaya's invasion plan and he emphasizes the role of the Chilean intelligence, which he considered better informed than the British in these matters (Barker, 2002: ch. 7).

But continuing with the southern tip of the American continent; British intelligence had selected some indicators that should alert it that the invasion was underway. One of these would be the mobilization of mountain brigades on the Chilean border, the most obvious choice for the islands. It is known that GCHQ was monitoring the radio frequency traffic of these brigades: as long as they were on the border, there would be no danger (Keegan, 2003: Epilogue). But, as we know, this did not happen. The initial operations were carried out by the Argentine Navy and Marines in their entirety, and later elements of brigades that were not on the border were deployed for fear of a Chilean reaction, taking advantage of the conjuncture

(Aldrich, 2010: 394-395; Keegan, 2003: Epilogue). But what would be interesting in this matter would be to be able to answer the questions concerning how British intelligence was obtaining those signals: had they reached an agreement with the Chileans to deploy signals interception stations in their territory or to use the Chilean means of signals intelligence jointly? was it the American station in southern Chile alone that was monitoring? or was it all three ways?

Various sources claim that Chile actively intercepted Argentine intelligence to then send it to the British (Treharne, 2015: 67-68; Richelson, 1988: 58), beyond lending territory for electronic interception Nimrod aircraft or Punta Arenas radar. According to journalist Duncan Campbell, Chile reached an agreement, shortly after the war began, with the British government, whereby a complete exchange of intelligence was agreed, including the monitoring and deciphering of Argentine communications to be carried out by Chilean naval intelligence; in exchange, Pinochet would not only obtain collaboration to protect his nation from Argentine aggression, but the United Kingdom would commit, as has been subsequently proven, to look the other way with respect to the regime's violations against human rights (Campbell, 1985). General Fernando Matthei, a member of the Chilean Military Junta and openly Anglophile, gives some clues as to how the collaboration in communications intelligence matters would have been:

> "[...] I opened up to him everything we had in terms of intelligence. Our intelligence was not about agents, it was not about espionage; it was about a... permanent monitoring of what the other side was doing, by means of electronic equipment, listening... to transmissions, communications, radar emissions, all that, and... to fix the positions and to have... to know what equipment they had" (Matthei, interviewed in Televisión Nacional de Chile, 2022: 19m33s).

However, this collaboration seems to have begun weeks after the seizure of the islands. The British liaison officer who would contact Matthei was advised on April 11 that he would be the liaison in Chile to coordinate part of this support (Edwards, 2014: ch. 1), which could indicate that, if communications were being monitored earlier, it would be through the Americans, or else, through some kind of collaboration not revealed by Matthei. On the other hand, monitoring the volume of communications traffic, without necessarily reading them, is something that could easily be done by the Chileans without receiving the keys to decrypt them.

Nor did Lord Parkinson, a member of the War Cabinet, leave any doubt as to the provenance of the intercepts of some of the key messages for the series of events that resulted in the sinking of the *Belgrano*. Lord Parkinson discusses how Chilean intelligence services allegedly provided intelligence that set in motion the decision to sink the ship. Specifically, he points to the interception of the Argentine command's communications, which its orders to her commanding officer, Héctor Bonzo, by the Chilean intelligence services, although it is not possible to deduce from his words whether they sent decoded or encrypted data: "They [Chile] had intercepted the Argentinian command's instructions [...] We had been discussing what we would do

if we found it [the Belgrano] because we knew the Belgrano was out to sink a carrier" (Parkinson, quoted in Brown and Sengupta, 2012). Although we do not know what the U.S.-U.K.-Chile collaboration was like, some authors (Richelson, 1988: 58) imply that it was Chilean intelligence that was responsible for its decoding; others suggest that there may have been no decoding: "it was not known that Lady Thatcher was also supplied by the Pinochet regime with more vital raw intercept data revealing the orders to the Argentine commanders in action around the Falklands", referring to data sent by the Pinochet regime, indicating that the signals could have been sent from Chile in raw form, which may mean that they were sent unprocessed (Brown and Sengupta, 2012).

In any case, everything seems to indicate that the messaging regarding the movements of the *Belgrano*'s group, or at least part of the series of messages obtained that helped the *Conqueror* to find its battle group, was intercepted by the Chileans in the framework of this collaboration, who could also easily observe the movements of ships in Ushuaia. There is evidence that they could have also provided the notification of the *Belgrano*'s departure from port to the British authorities (Richelson, 1988: 58; Freedman, 1986: 328). The fact that they operated in southern Argentina, relatively close to Ushuaia and Punta Arenas, would have facilitated the reception of signals from southern Chile; in fact, it would be the ideal area to intercept them.

Regarding the U.S. tracking station in southern Chile, little is known about it. The NSA operated, in the late 1960s, at least two signal tracking stations in the country, one on Easter Island and the other at an unspecified location. When Salvador Allende came to power, both stations were evacuated and the material was transported to an American base in Panama (Hersh, 1983: ch. 22). It is likely that, after Pinochet's coup d'état, sponsored and engineered by the United States, the stations were reopened.

The Chilean territory was, on the other hand, key for the U.S. On the one hand, it allowed controlling low frequency (LF) communications with Soviet nuclear submarines in the American South and the South Pacific (Hersh, 1983: ch. 22) and, on the other hand, it could do the same with Chilean and Argentine HF radio frequency communications/signals. It seems that, by wresting power from the socialist Allende, an ally of the Soviet Union and Cuba, the US had removed any threat to its hegemony in the area and had improved its position, and thus that of the British, vis-à-vis Argentina in '82.

An argument against using only Chilean stations would be the great distance that separates Buenos Aires from the neighboring country, more than 400 miles, and even more from the south of this, more than 900. While it is feasible to intercept signals at those distances for lower frequencies, such as HF communications, as long as they are emitted with a minimum intensity and ionospheric conditions are adequate, it would be practically impossible to intercept UHF/VHF transmissions from any point in Chile. We do not know the parameters of the transmissions of the 24th, by which two units close to Mar del Plata were sent to Georgias, but if UHF/VHF, or HF channels were used in low power or in a discrete mode, they could hardly have been intercepted by Chilean stations.

Moreover, the most important messages relating to naval operations during the war, including plans, intentions and orders, seem to have reached British intelligence for the most part, and we only know the most relevant ones, no doubt a tiny percentage of all those they processed, so it would be reasonable to think that they had more means at their disposal and not that a single station in southern Chile could access all Argentine naval communications.

Similarly, there are other indications that British and, above all, US intelligence penetration, during and before the start of the conflict, went beyond a few hours of daily satellite or signals stations on foreign soil. Labour MP Tam Dalyell, active during the conflict, stated shortly after the conflict that, by 1 May, US intelligence had penetrated all levels of Argentine military command (Gavshon and Rice, 1984: 111). An impressive example would be the presence of the CIA detachment in Buenos Aires in the same building of the Joint Chiefs of Staff, on Paseo Colon. The CIA could thus control the deliberations of the high command, not only by means of its privileged access to important officials, but also by electronic mechanisms (Gavshon and Rice, 1984: 261). This last argument was used by Dalyell to argue that the British government knew much of the Junta's deliberations. In addition, and as discussed above, British intelligence was aware on the 28th that Minister Costa Mendez had informed several diplomats at the Foreign Office that the Junta had decided to reconquer the Malvinas; they could also have obtained information, before March, concerning the intentions of the Junta or its members, initial directives on the seizure of the islands, or the initial stages of planning, as seen above, which could indicate some kind of listening mechanism or human intelligence and a considerable presence of the CIA, NSA or their British counterparts.

What has been seen so far seems to suggest that the American intelligence services, and perhaps the British, had a certain infrastructure within the country. Means of collection located within Argentine territory would explain better than those studied so far the significant interceptions of the period March 24, 25. Evidently, intercepting radio frequency traffic between Buenos Aires or Puerto Belgrano and ships in the vicinity of Mar del Plata with receivers close to the transmitters/receivers has all kinds of advantages: it is easy to achieve 24-hour availability, as opposed to the low availability and high cost of satellites; the receiving equipment is cheaper, can be technologically simpler and less powerful, since it does not have the disadvantages of remoteness: adverse weather conditions, signal attenuation, interference. They could also pick up traffic on the higher frequency bands, VHF and UHF, if they were placed within the horizon of the transmitter/receiver, something impossible with the Chilean stations. *Endurance* would be a good example of a modest station, with few resources, but very useful when close to the transmitter/receiver; in fact, it intercepted key emissions for the development of the events in Georgias, but more on that later. We know that *Endurance* was in the vicinity of these islands on these dates. But even if it had been nearby in the period referred to, it would not have been easy to get all the traffic it picked up from the sea to the GCHQ base in Cheltenham for processing without a communications satellite, which the British did not yet have. It should be remembered that the receivers must pick up all communications broadcasts and send them to

Cheltenham, and only after laborious processing and analysis at headquarters, where the specialized personnel are stationed, are the important ones filtered out, not before. This reinforces the idea that infrastructure would have been necessary in Argentina simply to send the information that was obtained and/or U.S. support.

To spy on the traffic of the Argentine Navy with its commanders on land, it could have been enough with equipment deployed, for example, in vehicles, such as vans, or buildings, among which the American and British embassies in Buenos Aires would be the best candidates. There is hardly any information on the subject, although we have indications that the CIA had penetrated the Argentine military, as stated by Tam Dalyell MP. Richelson gives us a more precise clue as to who could have done the job. According to this author, there was a *Special Collection Service* (SCS) station in the US embassy in Buenos Aires in the 1980s, and it would have provided information to the British[3] (Richelson, 2016: ch. 8). Under this innocuous name hides one of the most invasive, secretive and effective intelligence organizations in the U.S. intelligence community. The SCS was created in 1978, bringing together the CIA's skills in clandestine operations and the NSA's technical capabilities into one intelligence organization, with the two agencies alternating leadership. The SCS had among its main objectives the gathering of signals intelligence from government establishments abroad, usually embassies or consulates. Its teams focused on communications at the highest level, which would be facilitated by the fact that they usually worked in national capitals; according to Richelson, the intelligence they obtained was of high quality, especially if the embassy was located on high ground or close to the foreign or defense ministries (Richelson, 2016: ch. 2), suggesting that this organization might have listened to Costa Mendez when he announced to diplomats the decision to invade the islands.

The service also carried out actions to place sophisticated listening equipment (from hidden microphones to satellite dishes) in the most inaccessible places and tried to capture and recruit key foreign communications personnel (Bamford, 2002: ch. 11). This type of work, especially invasive, could be very effective in gaining access to information even before it was encrypted. An example would be that of an INSCOM team, a U.S. Army unit, which, between 1982 and 1983, managed to place a bug, bribing cleaning and security personnel, in the conference room of General Manuel Antonio Noriega, in Panama (Richelson, 2016: ch. 8). Although the United States was monitoring communications with a satellite in Central America at this time, we see that it was also using other means, which also provided it with information that was not accessible by satellite. Most likely the same was happening in Argentina.

5 Espionage among allies

There is hardly any information at present on how the NSA, GCHQ or SCS obtained signals intelligence during the Falklands conflict and before, especially with

3 Richelson cites Gavshon and Rice, already discussed in this article, although he specifies SCS.

regard to naval communications, but in other cases information has been leaked on the mode of operation that may give us clues as to how it could have happened in the case in question. Although some of these cases are independent episodes, they are still new chapters in the intelligence collaboration between the Americans and the British and may shed light on the way of acting in the South Atlantic conflict, suggesting patterns of action.

One of the most notorious examples would be the spying plot at the highest level in Germany by the NSA, which definitely came to light when computer specialist Edward Snowden, who had worked at the CIA and the NSA, made public classified documents on various NSA programs in early June 2013. The German magazine *Der Spiegel* worked its way through a series of these documents, uncovering the extent of these activities in Germany. This revealed not only that US intelligence agencies had been intercepting Chancellor Angela Merkel's cell phone calls for more than a decade, but also that they had turned the US embassy in Berlin into a listening station.

According to one of the documents, from 2010, the SCS was operational in Berlin, and not only in the German capital but also in Paris, Madrid, Rome or Geneva. The SCS was able, among other things, to intercept not only cell phone calls, but also microwave, satellite and millimeter wave signals (Appelbaum *et al.*, 2013).

But it doesn't end there. In 2015, the Danish Defense Intelligence Service launched an investigation in the wake of the Snowden documents. The result of the investigation concluded that the Danish intelligence service had collaborated with the NSA: American intelligence was intercepting phone calls, text messages and chat messages from authorities in neighboring countries of cables crossing Danish territory ("U.S. spied on Merkel...", 2021).

In addition, the NSA was using the Bavarian base in Bad Aibling to spy on European neighbors via SIGINT. All indications are that the German intelligence service, the BND (*Bundesnachrichtendienst*), was collaborating in this task, although it is not known to what extent it was aware that the NSA was also spying on targets in the federal republic (Baumgärtner *et al.*, 2015).

And, unsurprisingly at this point, we should add the work of an old acquaintance: the GCHQ. The British took advantage of their proximity to Europe to spy, not only on countries but also on leading members of the EU, in collaboration with the Americans. The British service used its geographical location to monitor satellite communications and important communications cables coming into its territory from Germany. Interestingly, much of this espionage had nothing to do with security, but was purely economic and industrial espionage (Poitras *et al.*, 2013).

It is clear from this example that the United States and the United Kingdom spy on their allies, and jointly. A technologically advanced country like Germany was not able to prevent it, while the BND collaborated very closely with the NSA; the fact that they were allies undoubtedly contributed to Germany lowering its guard. One can also observe the great variety of means to obtain information: communications were spied on by satellite, but also by cable, radio frequency or telephony, and most of the time with means on the ground, in fact, there is no mention of satellites specifically

for SIGINT collection. Thus, it is reasonable to think that the United States and the United Kingdom were in a position to set up an espionage network in Argentina with such a high degree of penetration that it would more than cover many of the needs of the Falklands war. The same is true of espionage in Chile, Argentina and other South American countries in the 1970s, to which reference will be made later. The case of Germany shows, for example, that when there is a stable espionage network, the means of obtaining intelligence are mainly on the ground and the use of satellites is minimal. This could be the case in South American countries in the 1970s and in Argentina in the 1980s: a stable SIGINT espionage network would already exist. This example, moreover, shows how the embassy and the SCS operated in the German capital, which, as we have seen, was most probably active in Buenos Aires in the 1980s and, without any doubt, in several European capitals recently, suggesting a clear pattern of action.

6 Deciphering

So far, we have dealt with the different ways of obtaining signal intelligence. However, we have omitted a fundamental aspect, essential for accessing the captured information: decryption.

On February 11, 2020, the *Washington Post*, in collaboration with the German television station *Zweites Deutsches Fernsehen (ZDF)*, published an article discussing what it defined as the intelligence coup of the century, referring to what became known as Operation Rubicon (Miller, 2020). In reality, they were simply confirming something that had been leaked to the public for decades. Although not all the details were known, by the mid-1990s there was publicly available information that the Swiss company Crypto AG was being used by the NSA to spy on hundreds of countries around the world, both US allies and non-allies (Shane and Bowman, 1995), and the BND was also suspected of being involved.

On the other hand, during World War II and thereafter, the relationship between the United States and the United Kingdom on SIGINT issues has been quite close.

Although at the beginning of the 20th century the British Empire had almost total control of the world system of communications cables, to which it had access without any shame (Bamford, 1987: 30-32), as was to be expected, the United States ended up overtaking the former metropolis. The United Kingdom was in any case not just another US partner, allied only by strong historical and cultural ties, but had retained the valuable experience of its time as a superpower in the exploitation of foreign communications and could also offer valuable assets to the alliance, without which the United States would have had much more difficult to achieve the degree of global control it achieved, as would be the case of its overseas territories: Cyprus, Yemen, Ceylon, South Africa, Diego Garcia, Ascension, Hong Kong or the British territory itself, in Europe (Harding, 2014: ch. 8; Bamford, 1987: 493-494).

The fact is that, in the 1950s and 1960s, one of the main concerns of the Americans and the British was to supply cipher machines to NATO countries. The post-war

equipment was becoming obsolete. The cipher machines were extremely expensive, and the U.S. bore much of the cost of retrofitting the Europeans. One reason for this was to prevent the Soviets from gaining access to NATO communications, although there was another, more powerful and less confessable motivation: they wanted to prevent European countries from developing their own encryption industries, thus exporting their machines and making it difficult for the Anglo-Saxons to gain access to communications from countries whose products they had more than controlled. Needless to say, Western European countries were already being spied on by them in these years and were targets of their intelligence, especially France, but also Germany (Aldrich, 2019: 198-201, 325-326; Aldrich, 2010: 209-210).

In addition, US intelligence launched new and radical initiatives. The NSA proposed a *free licensing* scheme whereby NATO countries would be authorized to manufacture American and British crypto-equipment under free license, in order to discourage continental European research and production; interoperability and commonality was in line with the alliance's efforts to achieve more efficient armed forces. At the same time, the NSA and GCHQ were quietly encouraging alliance countries to introduce legislation to regulate (and hinder) the export of crypto equipment, in the same way that arms exports were controlled (Aldrich, 2019: 199-201).

But in this scheme, there was a small drawback: the restrictions were not valid for neutral countries such as Switzerland or Sweden (Aldrich, 2019: 201); these countries were not linked to an alliance such as NATO, so they did not have to follow its guidelines. Switzerland was a recognized producer of cipher machines, and being a neutral country strengthened its reputation and made its products more palatable to potential buyers. Faced with this serious problem posed by the "neutrals", the NSA was not going to stand idly by. The most important challenge was posed by the Swiss company Crypto AG, owned by Swedish businessman Boris Hagelin (Aldrich, 2019: 201).

Starting in the mid-1950s, the NSA closed deals with several companies in these countries and was negotiating with Boris Hagelin in what can be considered one of the greatest successes of American intelligence in the Cold War. To take control of Crypto AG, the NSA had sought a partner, already in the 1950s, and this was none other than the German BND (Aldrich, 2019: 202).

The NSA also pressured national companies to rig machines if they wanted to receive export licenses (Shane and Bowman, 1995). Something similar was happening in Europe. Germany was a very advanced country in cryptology, with leading companies in the sector. The BND had chosen Siemens as a front to supply technology, which actually came from the NSA, to Crypto AG and, in some cases, the alliance hurt start-ups in this country (Dobson, 2020; Aldrich, 2019: 202).

In 1963, Crytpo AG was selling equipment not only to Argentina, but also to countries such as Algeria, Egypt, Iran or Libya; products for which they paradoxically paid large sums of money to then be spied on at the highest level by the ultimate owners of the company (Aldrich, 2019: 204). But also, diplomatic and military

communications of countries such as Spain, Italy or Ireland were being thoroughly tapped (ZDFinfo, 2020: 2m36s).

GCHQ was aware of this BND, NSA and CIA operation from the beginning, although it did not participate. However, in the 1970s GCHQ begins to get involved in the processing of NSA intelligence information. In 1970, the United States launched its first Ryolite satellite, capable of absorbing huge streams of signals, which it then had to download to ground stations located at specific sites in different parts of the globe, one of them being the Menwith Hill base in the United Kingdom. On the other hand, with a dwindling budget after the post-Vietnam War cutbacks and with satellites capable of absorbing massive amounts of SIGINT, the NSA was forced to look abroad for support. As a result, GCHQ became very closely involved with the American agency in processing this type of information; the collaboration was "almost total" according to NSA historian Robert Johnson. At Cheltenham, a large part of the information sent by satellites was already being processed in the 1970s at the request of the NSA (Aldrich, 2010: 345-346). It is likely that as a consequence of this collaboration the NSA would have provided the GCHQ with the means and knowledge necessary to decrypt the signals coming from Crypto AG equipment. Similarly, the BND had shared with the Dutch TIVC (Technical Information Processing Center), an intelligence branch closely linked to the Dutch Navy, information regarding the algorithms used by these teams and used during the Falklands conflict to help the British (Jacobs, 2020).

Thus, in 1982 there were several countries that could read information from the Crypto AG machines, the same ones used by both the diplomatic service and the Argentine Navy (Jacobs, 2020). The United States, Germany and the Netherlands could and did read messages encrypted by them. Everything indicates that the United Kingdom was also in a position to decrypt the messages before the conflict began, although there is a debate as to whether the United Kingdom had to resort to its European allies once the conflict started, since it did not have the knowledge to decrypt the information and American support was delayed (Jacobs, 2020).

Regarding the question of the March messages, the information available suggests that the British were the first to read and evaluate them, not the Americans. As the then British Defense Minister John Nott relates, on March 31, when Thatcher was informed of the imminence of a landing in the Malvinas, he sent his private secretary to check whether the intelligence material they had had also been received by American intelligence and found that it had not. A message was also prepared for the Prime Minister to ask Ronald Reagan if he was aware of the signals intelligence they had received (Nott, 2002: 257).

On the other hand, Haig narrates how on the same Wednesday, March 31, he received a visit from the British ambassador announcing that the invasion was underway. Haig then asked his own intelligence community to verify the British information, after which analysts confirmed that an imminent invasion was likely (Haig, 1984: 263).

Clearly, if the information came from the NSA, Nott would not have sent his secretary to check whether US intelligence had received the same information, much

less confirmed to him that it had not. The same is true of Thatcher's question to Reagan. Haig's account confirms that there was no knowledge of this information on the American side, so unless the versions of both Haig and Nott were deliberately altered to protect American neutrality in the conflict, the key signals of March 1982 were obtained/processed by the British.

In addition, it is worth bearing in mind the words of the then Labour member of Parliament, Ted Rowlands, "Our intelligence in Argentina was extremely good. That is why we took action in 1977. [...] we have been reading its telegrams for many years" (UK Parliament, 1982, col. 650), referring to the South Thule crisis, during his intervention in Parliament in 1982, and astounding important members of the executive for what he had just revealed publicly. In other words, UK intelligence, probably with US support, was reading Argentine communications in the 1970s and all indications are that it was also reading them shortly before the conflict began in 1982.

In this regard, it should be noted that the North Americans were, since the beginning of the 70s, fully involved in listening to communications in the Southern Cone, among other areas of South America. To the probable tapping of communications, via products acquired from Crypto AG by Salvador Allende's regime in Chile (SRF, 2020: 16m04s), we can add the monitoring during the military coup in Argentina in 1976 and that of the entire network of nations participating in Operation Condor in the 1970s, including Argentina (Brustolin *et al.*, 2020; CIA, 1977; Kornbluh and Osorio, 2020). With a dense espionage network in the Southern Cone, of which Argentina was only a part, it is likely that the intelligence Rowlands spoke of came wholly or mainly from here, and no doubt the decryption would be courtesy of the US. it is doubtful that such close allies were duplicating means and efforts, and it seems reasonable that this espionage network was the one that later bore fruit in 1982. From sources close to the BND it is conjectured that the British would have obtained the decryption methods from the Americans almost certainly[4] (Jacobs, 2020). It should be noted that the BND had a covert listening station at Alvear in northern Argentina during these years (ZDFinfo, 2020: 19m00s).

As reported by the *Washington Post*, which had access to CIA documentation, "In 1982, the Reagan administration took advantage of Argentina's reliance on Crypto equipment, funneling intelligence to Britain, [...] according to the CIA history, which doesn't provide any detail on what kind of information was passed to London", that is, that the Reagan administration channeled intelligence to London during the conflict, but the analyzed document does not specify what kind or any other detail (Miller, 2020). This information is compatible with a collaboration in the style of the one already cited with respect to satellite information processing in the 1970s, in which the GCHQ processed intelligence from satellite signals, thus freeing up NSA resources for other priority areas for them. That is, the Americans could have

4 Operation Rubicon, of which the UK had been a "parasite" all along, would have benefited it to the point of deciding the final outcome of the conflict, according to these sources.

delegated the processing of information, obtained through their means deployed in Argentina, which would be encrypted with Crypto AG machines, to the British, taking into account their special interest in the Malvinas issue (Hastings and Jenkins, 2011: ch. 3); in this way they would send them the total of the information as they obtained it, without decryption, raw, and they would process it autonomously, using the methods and knowledge provided by the Americans for the decryption. The information would be *funneled* in its entirety, unprocessed; this would explain why the CIA document did not provide details of the type of information being sent. This also implies that American intelligence was unaware of the content of that information, and that it made no decision as to what information was passed to it. Note that this scheme is also similar to the way the VORTEX satellite operated: the British would monitor the flow of information while operating it themselves and inform the Americans in case of any developments.

In this regard, John Lehman, former US Secretary of the Navy during the conflict, provides additional information. In mid-April, Haig was forced to deny new information according to which the United States had provided satellite intelligence to the United Kingdom. According to him, the United States "[had] not acceded to requests that would go beyond the scope of customary patterns of cooperation" (Haig, quoted in Lehman, 2012: 81), i.e., it had not acceded to requests that went beyond the scope of customary patterns of cooperation. And here, according to Lehman, was the catch: both countries already collaborated a lot, their collaboration structure did not, in general, need political decisions (Lehman, 2012: 81-82). The way of cooperating on signals intelligence gathering, as we have described it, and well established since before the war started, would fit perfectly into this scheme. And it would hardly fit the request, for example, for the exceptional use of VORTEX satellites.

As seen above, the Americans were almost certainly not listening during March to Argentine communications; they were focused on China and Russia: they simply did not have the manpower for everything (Aldrich, 2010: 399).

7 Conclusions

Although the information on intelligence gathering in the Falklands War and, in particular, on signals intelligence is still quite incomplete, the analysis of the available information allows us to draw some conclusions.

U.S. collaboration, and certainly in the decryption of the messages from the Crypto AG equipment, was decisive for the final outcome of the war. The signals intercepted in March were communications between ships at sea and their commanders ashore. We know that the Argentine Navy used this equipment to encode their signals and that some of them were transmitted on HF, because of the distance from shore, and therefore were easy to intercept; other signals, such as those of March 24 were transmitted closer to shore, so they could have been transmitted more discreetly, including VHF/UHF. In this period the only ship with intercept capability was at Georgias –even southern Chile would be closer– so they were most likely intercepted

from land, with the American embassy or buildings run by the American, or even British, government being the places that possibly housed the receivers, though not necessarily, as HF interception (assuming VHF/UHF was not used) is the easy part of the task and there are other options.

The fact that these signals were intercepted, when the degree of alert was not very high, indicates that the listening effort was considerable. To hit these relevant signals, they would have had to process many others, probably as many as they could pick up. Sending a high volume of signals to the UK also requires some infrastructure and the British assets in the area (the *Endurance*) would doubtless be using (American) communications satellites to relay the raw intercepts. The most logical thing is that they were sent from the ground. There are also no indications or leaks of the existence of British intelligence infrastructure in Argentina, as there is from the US, with possible stations in Chile, the presence of the SCS and the CIA in Buenos Aires, as well as the presence in the 70's in the Southern Cone; we also know that the BND had at least one listening station in the country, but nothing concrete from the UK. Although this does not definitely exclude the presence of British means of their own in the country, the total absence of indications, in contrast to the extraordinary performance of the SIGINT means at their disposal, seems to indicate that the infrastructure was not theirs. This may suggest a division of labor and resources between the two allies, with the United States putting more resources in America and the United Kingdom in Europe.

As the March messages were obtained before the British and their allies deployed means in the area, it can be deduced that the listening infrastructure was already there beforehand, surely it is the one that existed since the 70s and mainly American, although it is possible that the role of the Chilean signals intelligence also played an important role. As we have seen, this infrastructure worked perfectly, with no British means of collection at sea, let alone in the air or in space. The British task force did not have sufficient air surveillance, reconnaissance or intelligence means at any time during the conflict, so that the interception of naval messages, mainly communication messages between commands on land and units at sea, such as those that were key in the sinking of the *Belgrano*, could have been carried out from this infrastructure, or by Chilean teams, with the information being processed by the GCHQ.

Although some sources speak of decryption of Argentine naval communications by Chilean intelligence, it is unlikely that the British or Americans would have shared the methods of the Crypto AG machines with them, when the Chileans themselves were being spied on in the same way. It is reasonable to think that they delivered the intercepted information in raw form, without decryption, to the GCHQ, so it could be that they did not know the content of the messages they sent, including those of the *Belgrano*. This situation, in which they collaborated in espionage while being spied on, would be similar to that of the NSA in Bad Aibling, Germany.

The use of the VORTEX satellite even before the Junta decided to carry out the invasion does not seem reasonable for the reasons given above. Its use would have been much more useful in the landing phase and days before, to intercept Argentine

very high frequency communications on the islands (UHF, VHF). This would require having the receiver/transmitter in direct line, within the horizon, at a very short distance, which would put at risk the British units doing so.

The United Kingdom received important support in other areas of intelligence, apart from naval SIGINT, and not only from the United States. Countries such as Germany or the Netherlands made an invaluable contribution. The Netherlands intercepted and decoded signals from its bases in Europe (Wiebes, 2005: 275), as also had access to decryption methods. Communications equipment produced by American companies, which would affect Argentine field units, would also have been vulnerable (Aldrich, 2010: 399), possibly thanks to the American effort to control this type of companies at a global level. It is possible that the intelligence support that the United Kingdom received at the beginning of the war from the Dutch and Germans had more to do with the processing of intercepts, since the GCHQ should be saturated, than with assistance with the decryption methods of the Crypto AG teams, something they were already able to do on their own.

From the evidence provided throughout this work, it is clear that a characteristic of the collaboration between the US and the UK was its structural nature, more than punctual, not limited to Argentina, lasting, with a sharing of functions and a joint use of certain means and infrastructures. This collaboration was so consolidated that for most of the actions in which the participation, assistance or use of American means was essential (as in the case of decryption) a political decision was not necessary, as they were of a routine nature.

Paradoxically, despite the important support given by Germany to the United States and especially to the United Kingdom, none of them had any scruples about spying on their communications in the following years.

Finally, the real impact of intelligence in this war must be taken into account when assessing the causes that led the British to victory, even more so when, by its very nature, it has been a hidden factor for decades.

Bibliography

Aldrich, R. J. (2010). *GCHQ: The Uncensored Story of Britain's Most Secret Intelligence Agency*. London, HarperPress.

Aldrich, R. J. (2019). *GCHQ: The Uncensored Story of Britain's Most Secret Intelligence Agency.* 2.ª ed. London, William Collins.

Appelbaum, J. *et al.* (2013). Embassy Espionage: The NSA's Secret Spy Hub in Berlin [online]. *Spiegel Online*. [Accessed: 2024]. Available at: https://www.spiegel.de/international/germany/cover-story-how-nsa-spied-on-merkel-cell-phone-from-berlin-embassy-a-930205.html

Bamford, J. (1987). *The Puzzle Palace: Inside the National Security Agency, America's Most Secret Intelligence Organization*. New York, Penguin.

Bamford, J. (2002). *Body of secrets: Anatomy of the ultra-secret National Security Agency: from the Cold War through the dawn of a new century*. New York, Anchor.

Barker, N. (2002). *Beyond Endurance: An Epic of Whitehall and the South Atlantic*. Barnsley, Pen and Sword.

Baumgärtner, M. *et al.* (2015). Spying Close to Home: German Intelligence under Fire for NSA Cooperation [online]. *Spiegel Online*. [Accessed: 2024]. Available at: http://www.spiegel.de/international/germany/german-intelligence-agency-bnd-under-fire-for-nsa-cooperation-a-1030593.html

Brown, C. & Sengupta, K. (2012). Sinking the Belgrano: the Pinochet connection [online]. *The Independent*. [Accessed: 2024]. Available at: https://www.independent.co.uk/news/world/world-history/sinking-the-belgrano-the-pinochet-connection-7609047.html

Brustolin, V., Oliveira, Dennison de & Reis Peron, Alcides E. dos. (2020). Exploring the relationship between crypto AG and the CIA in the use of rigged encryption machines for espionage in Brazil. *Cambridge Review of International Affairs*. 36(1), pp. 54-87. [Accessed: 2024]. Available at: https://doi.org/10.1080/09557571.2020.1842328

Campbell, D. (1985). The Chile Connection [en línea]. *New Statesman.* Duncan Campbell, pp. 8-10. [Accessed: 2024]. Available at: http://www.duncancampbell.org/

CIA. (1977). *Counterterrorism in the Southern Cone*. *National Security Archive*. [Accessed: 2024]. Available at: https://nsarchive.gwu.edu/document/19868-national-security-archive-doc-2-cia-report

Day, D. (2022). War at sea, seen from above [online]. *The Space Review*. [Accessed: 2024]. Available at: https://thespacereview.com/article/4375/1

Dobson, M. J. (2020). Operation Rubicon: Germany as an intelligence 'great power'? *Intelligence and National Security*. 35(5), pp. 608-622. [Accessed: 2024]. Available at: https://doi.org/10.1080/02684527.2020.1774852

Edwards, S. (2014). *My Secret Falklands War*. Sussex, Book Guild Publishing.

Facchin E. L. (2022). *The Untold Story of a Fighting Ship: One Ship, Two Flags, a Thousand Battles.* Cham, Springer Nature.

Freedman, L. (1986). Intelligence operations in the Falklands. *Intelligence and National Security*. 1(3), pp. 309-335. [Accessed: 2024]. Available at: https://doi.org/10.1080/02684528608431860

Freedman, L. (2005). *The Official History of the Falklands Campaign, Volume 2 War and Diplomacy.* London, Routledge.

Freedman, L. & Gamba-Stonehouse, V. (1991). *Signals of War: The Falklands Conflict of 1982*. Princeton, Princeton University Press.

Gavshon, A. & Rice, D. (1984). *El hundimiento del Belgrano*. Buenos Aires, Emecé.

Haig, A. M. (1984). *Caveat: Realism, Reagan, and Foreign Policy*. Nueva York, Macmillan Publishing Company.

Harding, L. (2014). *The Snowden Files: The Inside Story of the World's Most Wanted Man*. New York, Vintage Books.

Hastings, M., & Jenkins, S. (2011). *The battle for the Falklands*. London, Pan Books.

Hersh S. M. (1983). *The price of power: Kissinger in the Nixon White House*. New York, Summit Books.

Jacobs, B. (2020). Maximator: European signals intelligence cooperation, from a Dutch perspective. *Intelligence and National Security*. 35(5), pp. 659-668. [Accessed: 2024]. Available at: https://doi.org/10.1080/02684527.2020.1743538

Jinks J. & Hennessy, P. (2015). *The silent deep: the Royal Navy submarine service since 1945*. London, Penguin UK.

Keegan, J. (2003). *Intelligence in War: Knowledge of the Enemy from Napoleon to al-Qaeda*. New York, Knopf.

Kornbluh, P., y Osorio, C. (2020). *The CIA's 'Minerva' Secret* [online]. Washington, National Security Archive. [Accessed: 2024]. Available at: https://nsarchive.gwu.edu/briefing-book/chile-cyber-vault-intelligence-southern-cone/2020-02-11/cias-minerva-secret

Lehman, J. (2012). The Falklands War: Reflections on the 'Special Relationship'. *The RUSI Journal*. 157(6), pp. 80-85. [Accessed: 2024]. Available at: https://doi.org/10.1080/03071847.2012.750891

Mayorga, H. (1988). *No vencidos: relato de las operaciones navales en el conflicto del Atlántico*. Buenos Aires, Planeta.

Middlebrook, M. (2012). *The Falklands War.* Barnsley, Pen & Sword.

Miller, G. (2020). The Intelligence Coup of the Century [online]. *The Washington Post*. [Accessed: 2024]. Available at: https://www.washingtonpost.com/graphics/2020/world/national-security/cia-crypto-encryption-machines-espionage/

Nott, J. (2002). *Here Today Gone Tomorrow: Recollections of an Errant Politician*. London, Politico's.

Platje, W. (2005). Dutch Sigint and the Conflict with Indonesia, 1950–62. In: Aid, M. M. & Wiebes, C. (eds.). *Secrets of Signals Intelligence during the Cold War and Beyond*. London, Frank Cass Publishers, pp. 285-312.

Poitras, L., Rosenbach, M., & Stark, H. (2013). Friendly Fire: How GCHQ Monitors Germany, Israel and the EU [online]. *Spiegel Online*. [Accessed: 2024]. Available at: https://www.spiegel.de/international/world/snowden-documents-show-gchq-targeted-european-and-german-politicians-a-940135.html

Prince, S. (2002). British command and control in the Falklands Campaign. *Defense & Security Analysis*. 18(4), pp. 333-349. [Accessed: 2024]. Available at: https://doi.org/10.1080/14751790220000024466

Reuters. (2021). U.S. spied on Merkel and other Europeans through Danish cables - broadcaster DR [en línea]. *Reuters*. [Accessed: 2024]. Available at: https://www.reuters.com/world/europe/us-security-agency-spied-merkel-other-top-european-officials-through-danish-2021-05-30/

Richelson, J. T. (1988). *Foreign intelligence organizations*. Cambridge, Ballinger Publishing Company.

Richelson, J. T. (2016). *The US intelligence community.* 7.ª ed. Boulder, Westview Press.

Rossiter, M. (2008). *Sink the Belgrano*. Londres, Random House.

Sciaroni, M. (2019). *A Carrier at Risk: Argentine Antisubmarine Missions during the 1982 South Atlantic War*. Warwick, Helion & Company.

Sciaroni, M., & Smith, A. (2020). *"Go Find Him and Bring Me Back His Hat": The Royal Navy's Anti-submarine Campaign in the Falklands War*. Vol. 21. Warwick, Helion and Company.

Schmidt-Eenboom, E. (2005). The Bundesnachrichtendienst, the Bundeswehr and Sigint in the Cold War and After. In: Aid, M. M. y Wiebes, C. (eds.), *Secrets of Signals Intelligence during the Cold War and Beyond*. London, Frank Cass Publishers, pp. 129-176.

Shane, S., & Bowman, T. (1995). Rigging the Game [online]. *Baltimore Sun*. [Accessed: 2024].

SRF Dokus & Reportagen. (2020). *Cryptoleaks – Wie CIA und BND mit Schweizer Hilfe weltweit spionierten*. [Accessed: 2024]. Available at: https://youtu.be/VWImO1Qz4Zo

Televisión Nacional de Chile. (2022). *Informe Especial - Chile en la Guerra de las Malvinas* [2005]. Entrevista a Fernando Matthei. [Accessed: 2024]. Available at: https://youtu.be/xdZ1ImI1rWM

Train, H. (2012). Malvinas: Un caso de estudio [online]. *Boletín del Centro Naval.* 130(834), pp. 231-262. [Accessed: 2024].

Treharne, S. A. (2015). *Reagan and Thatcher's Special Relationship Latin America and Anglo-American Relations*. Edinburgh, Edinburgh University Press.

Urban, M. (1996). *UK Eyes Alpha: Inside Story of British Intelligence*. London, Faber & Faber.

UK Parliament. (1982) *Hansard: House of Commons Debates*. Vol. 21, col. 650. [Accessed: 2024]. Available at: https://hansard.parliament.uk/commons/1982-04-03/debates/3eaf995e-387a-4fb9-a244-927b5a8d87a7/FalklandIslands

Wiebes, C. (2005). Dutch Sigint during the Cold War, 1945–94. In: Aid, M. M. & Wiebes, C. (eds.). *Secrets of Signals Intelligence during the Cold War and Beyond*. London, Frank Cass Publishers, pp. 243-284.

ZDFinfo Dokus & Reportagen. (2020). *Streng geheim! Cryptoleaks. Die große BND und CIA Spionage*. [Accessed: 2024]. Available at: https://youtu.be/jagiJ9YAqto

Article received: January 29, 2025
Article accepted: May 29, 2025