

The Role of the French Foreign Legion in Latin America in the Defence of the European Space Program¹

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Since its formation in 1831, the French Foreign Legion has traditionally defended French interests in the overseas regions. During its nearly two centuries of existence, it was primarily involved in the conquest and protection of colonial territories in Africa but was also deployed many times on the Asian and American continents. In the latter region, the Foreign Legion has been active since 1973, mainly in the European space centre in French Guyana, protected by the soldiers of the 3rd Foreign Infantry Regiment. The Guyana Space Centre, currently the largest spaceport of the European Union, was established in 1964 in French Guyana near the city of Kourou, making it ideal for launching space rockets due to its proximity to the Equator. The space centre, originally run by the French state, has been shared with other European Space Agency countries since 1975, launching European satellites from an area more than 7,000 kilometers from Europe. Among other projects, they enable the operation of the Union's satellite navigation system, Galileo. For all these reasons, the protection of the space centre is a priority task, which the Foreign Legion has been effectively providing for almost 50 years with tools and methods that have been constantly renewed. The aim of this paper is to present this activity and its impact on the region and, more broadly, on the scientific and geopolitical situation in Europe.

Keywords: *European Space Agency, Guyana Space Centre, French Guyana, French Foreign Legion, military security*

Introduction

Thanks to its colonial past and its (changing) role in world politics, France has considerable experience of how to assert its interests in the most effective way, even in regions far from its own European centre of power. This advocacy has political, economic, cultural and military components. There are many forms of these eventual armed actions, but in

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these cases, France usually involves the French Foreign Legion, which has been a reliable defender of French interests everywhere since its creation.

Given that one of the most important links in the European space programme is the space centre in French Guyana, it is understandable that this military unit also plays a significant role in its protection. In order to provide a comprehensive picture of this specific and centuries-old cooperation, this paper will first review the main stages in the history of the French Foreign Legion, then the development of the French space programme and the creation of the Guyana Space Centre and their integration into the European space programme, and finally the military activities carried out by the legionary force stationed in Guyana to protect this high-priority project.

The French Foreign Legion

The use of foreign soldiers for French interests began long before the founding of the Foreign Legion, as the recruitment of warriors from other countries for the French army has a centuries-old tradition. Mercenaries from other countries were already used in the 12th century when Philip Augustus hired free companions instead of feudal troops. Given their effectiveness, the French sovereigns used the services of the Genevan crossbowmen and the Scottish archers during the Hundred Years' War. The Scottish troop existed until the Revolution of 1789, as did the Swiss Guards created in the 16th century who were massacred in defence of the Tuileries by the Parisian people on 10 August 1792.³ During the Ancien Régime, about a quarter of the royal army was made up of foreign soldiers, and on the eve of the Revolution, no less than 24 infantry regiments and 14 cavalry regiments were formed exclusively by foreign soldiers (Irish, Germans, Danes, Swedes, Italians, Hungarians, etc.). Despite the undeniable fighting value of these troops, the republicans were reticent about them, judging them to be too loyal to the monarchy, which is why most of them were disbanded in 1791–1792.⁴

However, due to the international nature of the revolution, foreign volunteers came forward in large numbers to support the French revolutionary army, and consequently several foreign legions formed by these recruits were created to fill the gaps in the ranks of the French troops. After the rise of Napoleon I, the number of these troops increased significantly. The emperor recognised the potential in foreign soldiers and established a number of military formations as early as 1802 to bring these volunteers together and exploit them. The latter came from all over Europe and formed about sixty units (for example the Hanoverian Legion or the Isembourg Regiment) until 1814.⁵ Their importance is proven by the fact that the Grand Army crossing the Niemen in 1812 included up to half of the soldiers of foreign origin.⁶ After the fall of the Empire, the new regime turned to

³ BERGOT 1972: 25.

⁴ PORCH 1994: 21–22.

⁵ MONTAGNON 1999: 12–13.

⁶ DE GMELINE 2016: 21.

the use of trained and available foreign troops and created the Royal Foreign Legion in 1815 which later became the Hohenloe Legion. The revolution of July 1830 changed this situation, as the revolutionaries intended to eliminate this formation, which was considered monarchist, and the foreign units were dissolved by order.⁷

Nevertheless, the French Government still needed proven soldiers capable of participating in the recently begun conquest of Algeria. Consequently, the absence of foreign troops lasted only for a brief time, as the royal decree of 9 March 1831 created a legion composed of foreigners which took the name of the Foreign Legion. This new formation formed by foreigners was intended above all to fight outside the territory of the metropolis. According to the ordinance, the Legion consisted of battalions identical to those of the line infantry, whose members wore the same uniform and received the same pay as those of other army units. To facilitate the command of these heterogeneous men, at the beginning, each battalion of the Legion grouped together one or two nationalities. Consequently, the 1st, 2nd and 3rd battalions were reserved for the Swiss and Germans, while the 4th was for the Spanish and Portuguese, the 5th for the Italians, the 6th for the Belgians and Dutch and the 7th for the Polish. Foreign volunteers between the ages of 18 and 40 could sign a contract for a period of 3 to 5 years.⁸

These legionary battalions were immediately deployed to Algeria and Spain. During the fierce fighting, the Legion forged a solid reputation and settled on the African continent for more than a hundred years, taking up residence in Sidi Bel Abbès in Algeria. After the end of the long Algerian campaign, the legionnaires were used in conflicts on other continents. They participated in the conquest of new colonial areas such as Mexico, Tonkin, Madagascar, Morocco, Syria, etc. At the same time, they were present in European wars (in Crimea and Italy) and contributed to the defence of the national territory in difficult geopolitical situations (such as the Franco–Prussian War, the First and Second World Wars). From 1945 onwards, the Legion was forced to fight in the wars of independence in Indochina and Algeria, which ended in bitter failure. It then participated in peacekeeping operations in former colonial territories in Africa, the Middle East and elsewhere. As a regular corps of the French Army, it is currently based in Aubagne and nowadays also provides security in overseas regions (Guyana, Mayotte, etc.).⁹

Today, it counts one hundred and forty nationalities in its ranks. With the possibility of recruiting up to the age of forty, the Legion can also hire very experienced personnel. This broad capacity to recruit naturally allows for a quality selection. At present, it is estimated that out of eight candidates applying for a Foreign Legion information post only one volunteer will finally be retained after the selection tests. Benefiting from a quality recruitment, the Legion is a troop with a recognised efficiency. Consequently, it is used regularly in military missions all over the world.¹⁰

⁷ ASZÓDY 1977: 11–14.

⁸ COMOR 2013: 109–110.

⁹ See BLOND 2008.

¹⁰ O'MAHONEY 2010: 104–105.

The beginnings of the French space programme

The French space programme covers all French civil and military space activities. The origins of the French space programme go back to 1946 when the French Army created the Ballistics and Aerodynamics Research Laboratory (*Laboratoire de recherches balistiques et aérodynamiques*) with the hiring of German engineers who were experts in rocket technology. The first mission of the laboratory is the development of ballistic and anti-aircraft missiles and sounding rockets. However, the results of this work were modest, as most German specialists returned to Germany in the early 1950s.¹¹

The situation changed when President Charles de Gaulle came to power in 1958. It was the return of Charles de Gaulle to power that gave a new impetus to scientific research, which led to structural changes and new developments. De Gaulle decided that France will autonomously develop a ballistic missile carrying nuclear weapons. As part of this ambition, the Space Research Committee (*Comité de recherches spatiales*) was created to study the role that France could play in this new field. On 2 August 1961, General de Gaulle decided to take advantage of the opportunity to build a low-cost satellite launcher: he gave the green light to the construction of the Diamant launcher. The Diamant rocket was to be based on the developments made for the strategic missile and was to enable a 50 to 80 kg satellite to be launched.¹²

At the same time, in order to carry out a real space programme, a coordination and animation institution was still missing. It was created on 19 December 1961 as a public establishment called the National Centre for Space Studies (*Centre national d'études spatiales*) and its first mission was to place France in the club of space powers alongside the USSR and the USA. From 1961 to 1981, CNES was the driving force behind the European space programme. During these years, the essential structures for a space programme were put in place: launchers, satellites, a set of launchers, operations centres and a network of control stations, laboratories, etc., while the other European States were very reluctant to commit themselves. At the same time, a competent and dynamic space industry was emerging in France.¹³

The first launch of the *Diamant* rocket, on 26 November 1965, was a success: it put the first French artificial satellite, named *Asterix*, into orbit. The rocket was launched from the Hammaguir site in Algeria which was chosen by military experts 20 years before. The French War Ministry took over studies of self-propelled projectiles in 1945 but needed a suitable site for the necessary tests. In 1946, a mission arrived in Colomb-Béchar in Algeria (located 1,150 km southwest of the Algerian capital) to study the possibilities of the site, which was finally found to be suitable. Two experimental sites were created: B0 the first block for missile testing, B1 for larger rockets. The two firing sites were not sufficient to launch larger missiles. In 1952, they decided to create another complex or polygon called B2 Hammaguir located 120 kilometres southwest of Colomb-Béchar. Four launch pads were created for the various missiles and rockets. The space biology tests at

¹¹ CARLIER 2010: 75–76.

¹² VARNOTEAUX 2003: 65.

¹³ LAMY 2011: 161–165.

Hammaguir were the first to be carried out for France, with the launch of living beings in a *Véronique* sounding rocket in 1961. The Algerian War of Independence from 1954 to 1962 changed the situation, because according to the Évian Accords of 1962, France had to leave Algeria. However, the side clauses of the agreements allowed for a continued French presence at certain military sites for some years after independence. The rocket launch bases were parts of this, as were the nuclear test sites, as well. It was left at the disposal of the French authorities for a further five years in order to be able to continue the flight tests necessary for the development of the first ballistic missiles of the deterrent force and the *Diamant* space launcher. The base was evacuated in 1967 in accordance with the Évian Accords.¹⁴

The Guyana Space Centre

In this situation, CNES was obliged to look for a new launch base for its space programme. The CNES preliminary study identified no less than 14 sites that could host the new French launch pad. Teams from the French space agency then visited each of the sites to determine the most appropriate one, according to the selection criteria. These are as follows: the possibility of polar and equatorial launches, proximity to the equator, sufficient size to ensure the safety of launches, the existence of a deep-water port with sufficient handling facilities, the existence of an airfield capable of handling a long-haul aircraft (3,000 m runway), the shortest possible distance between the launch base and Europe, and political stability. The CNES report established a ranking of the various sites according to the selection criteria used. Five locations could be considered out of the fourteen sites examined, but French Guyana came out on top. The maritime façade also allows for satellite launches into a polar orbit under optimal conditions. All launch azimuths between -10.5° (polar or sun-synchronous orbits) and $+93.5^\circ$ (geostationary orbits) are possible. It is also important that the Kourou launch site is located 5.3° north of the equator, a position that allows the rockets to gain propulsion from the Earth's rotation (which means an extra 460 m/s, or 170 km/h) when launching eastwards, thus saving propellant. The low population density and the wide opening to the Atlantic Ocean reduce the risks in case of problems with the launcher. The surrounding hills allow trajectory radars and telemetry antennas to be installed with good visibility, existing infrastructure can be easily adapted, and the well-ventilated site makes the climate bearable despite its equatorial position. Furthermore, the area is not prone to earthquakes and cyclones. Furthermore, French Guyana, as part of the French territory, also has the advantage of political stability. As a result, the French Government decided to establish the new site of the space programme in French Guyana, more precisely in Kourou, in 1964.¹⁵

The first construction work began in September 1965, employing 2,500 people of eleven different nationalities. Firstly, they required the construction of infrastructure and basic housing and equipment, which are lacking due to the small population of French

¹⁴ NARDON 2007: 294.

¹⁵ THÉRY 2015: 224–225.

Guyana. At that time, even Kourou was only a village of 660 inhabitants.¹⁶ Infrastructure works included the construction of a major jetty to unload materials to and from Europe and the extension of the local airport's runway to allow for the arrival of long-haul jumbo jets. At the same time, a real town was built on the site of the village of Kourou. Three launch assemblies were built for sounding rockets, the French *Diamant* launcher and the European *Europa* rocket. The first set of completed launches is the sounding rockets and was inaugurated with the launch of a *Veronique* sounding rocket in April 1968.¹⁷

Thanks to continuous efforts, the Guyana Space Centre is today a launch base with three active launch complexes used for launching different types of rockets. With a surface area of 750 km², the site stretches along the coast over a length of about 50 km and a maximum depth of about 20 km. The town of Kourou, built to house CSG employees and with a population of around 25,000 in 2021, is surrounded by the CSG site. The Guyana Space Centre has many facilities that are necessary for the successful launch of rockets and satellites with a wide variety of characteristics: launch complexes each dedicated to a type of launcher, control centres, payload preparation centres, solid propellant manufacturing plants, test benches, production plants for liquid propellants and certain gases, technical centres, etc.¹⁸ The role of the Guyana Space Centre in the local economy is particularly important, as a quarter of French Guyana's GDP is produced by the space programme in Kourou.¹⁹

The European space programme

During the 1950s, France and Great Britain set up national space programmes, but the results of these remained modest because of their limited financial support. Therefore, European personalities from different fields were calling for the creation of a European scientific space programme. In 1960, 11 countries decided to set up such a body, which came into being as the European Space Research Organisation (*Conseil européen de recherches spatiales*) in 1964 with the participation of ten countries. Their aim was to pool their limited resources dedicated to the development of space research programmes, especially satellites and launchers. However, the organisation's participants struggled to achieve their objectives and the results were modest. To break this deadlock, it needed deeper cooperation in the space field. This cooperation was provided by a new organisation called the European Space Agency. Signed on 30 May 1975 by eleven European Member States, the European Space Agency Convention is de facto operational as of 31 May 1975 and has a legal existence as of 30 October 1980, the date when the ESA charter entered into force after its ratification by the eleven founding members (Belgium, Denmark, France,

¹⁶ CAMBRÉZY 2015: 199–201.

¹⁷ REDFIELD 1996: 260–262.

¹⁸ SAINT-CROIX 1995: 311–312; PIANTONI 2009: 208.

¹⁹ BERNAS 2020: 21.

Germany, Ireland, Italy, the Netherlands, Spain, Sweden, Switzerland and the United Kingdom).²⁰

ESA is responsible for the development of European launchers, the first result of which was *Ariane 1*. This was the first version of the *Ariane* family of rocket launchers capable of placing payloads (mainly satellites) into geostationary transfer orbit. Later, it was replaced by more powerful versions (*Ariane 2*, *Ariane 3*, *Ariane 4* and *Ariane 5*) better suited to the growing weight of telecommunications satellites.²¹

In 1985, ESA defined its scientific programme for 20 years, which was named Horizon 2000. The missions in this programme are intended to make considerable progress in scientific knowledge. The programme was followed by Horizon+ (2016–2015) and Cosmic Vision (2015–2025), which includes several missions of different sizes. The European Union has entrusted the European Space Agency with the development and maintenance of the space segment of the Galileo geopositioning programme, a civilian competitor to the American GPS.²² The programme has already achieved several successes and has ambitious plans for the future such as the development of new, more powerful launchers and the realisation of manned flights.

The European Space Agency has 22 member countries, three of which – Norway, the United Kingdom and Switzerland – are not members of the European Union. The other member countries of the Agency are Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Romania, Spain and Sweden. As can be seen from this list, not all EU member states are members of ESA, and conversely, not all ESA member states are members of the EU. ESA is a fully independent organisation, although it has a close relationship with the EU under a framework agreement between the two organisations. ESA and the EU share a common European strategy for space and jointly develop a European space policy. ESA's headquarters are in Paris, so its policies and programmes are decided in Paris. However, ESA has centres in different European countries, each with specific responsibilities.²³

At the beginning of the European space programme, France offered to share Kourou with the new agency, which was accepted by the leaders of the Agency. As a result, ESA finances two thirds of the annual budget of the Kourou base, and, in most cases, European space missions are launched from Kourou. With its very high annual launch frequency (around ten) for all launchers, the Guyana Space Centre is one of the most active launch bases in the world. As a key element of European space policy, the Guyana Space Centre is a strategic site for international collaboration. It enables the launch of satellites from operators around the world for space applications that are essential to our daily lives.²⁴

²⁰ GAILLARD 2002: 107–111.

²¹ DELION–DURUPTY 2006: 374–375.

²² LAMY–SAINT-MARTIN 2013: 431–435.

²³ AUTRET 2007: 273.

²⁴ SARTORIUS 2012: 39–48.

The activities of the French Foreign Legion in Guyana

The 3rd Foreign Infantry Regiment is the most decorated regiment of the Foreign Legion in the French Army. It was created in 1920 and is the heir of the marching regiment of the Foreign Legion.

After the outbreak of the First World War, with the help of a large number of foreign volunteers, four legionary marching regiments were formed and deployed in France in the autumn of 1914 against the German troops.²⁵ In November 1915, because of the heavy losses and the legionnaires' returning to the Allied forces entering the war, these units were disbanded and the available forces were used to create the Marching Regiment of the Foreign Legion, which was continuously engaged in combat until the end of the war and was considered one of the most successful units of the French army at the end of the conflict, thanks to its nine decorations.²⁶ However, this success came at a heavy price: 5,170 of the volunteers who enlisted were killed in action and 25,000 were wounded or missing, meaning that approximately 70 percent of the volunteers were on the casualty list.²⁷

In 1920, the 3rd Infantry Regiment was formed in Morocco from the remaining active members of the regiment that had fought in France during the Great War, and from newly recruited volunteers.²⁸ It actively participated in the pacification of the country and took part in the fighting in the Rif and in operations to reduce the dissidence.²⁹ The regiment only became directly involved in the Second World War in 1943 during the Tunisian campaign. It then participated in the liberation of France and the occupation of Germany in 1944–1945. The unit also took part in the Indochina War of Independence from 1946 to 1954, where it suffered heavy losses. From 1954, the regiment was in Algeria and took part in operations against the insurgents fighting for the country's independence.³⁰ From 1962 to 1973, the troop was stationed in Madagascar where it specialised in training for amphibious and tropical operations.³¹

In 1973, the regiment left Madagascar and moved to Camp Forget in Kourou, French Guyana. As soon as it arrived in French Guyana, the 3rd Regiment built the eastern road through the forest, intended to link Cayenne to the Brazilian border. The unit was also involved in the development of the Kourou space site and after the end of this work, it became an integral part of the armed security system of the space centre.³² Thanks to its experiences in a tropical environment, the troop participates in the elaboration of the rules of combat in the forest and offers different types of training courses for other military units coming from France or even from abroad.³³

²⁵ DOUMIC 1926: 3.

²⁶ BERGOT 1984: 98–100.

²⁷ MAHUAULT 2013: 205.

²⁸ MONTAGNON 1999: 182.

²⁹ AGERON et al. 2016: 205–206.

³⁰ COMOR 2013: 771–772.

³¹ DE GMELINE 2016: 523.

³² COMOR 2013: 772.

³³ LE TOURNEAU 2016.

The legionnaire unit has several missions in Guyana. From 2008 onwards, it has been taking part in Operation *Harpie*, the aim of which was to paralyse illegal gold-mining sites throughout French Guyana. The main focus of *Harpie* operations is the destruction of production sites and means of production. This objective is achieved through joint patrols, carried out mainly by the National Gendarmerie (*Gendarmerie nationale*) and the Armed Forces in French Guyana (*Forces armées en Guyane*). In the ranks of this latter, 2,300 people (military and civilian) serve, including 600 legionnaires of the 3rd Foreign Infantry Regiment.³⁴

However, its most important mission since 1979 has been its involvement in the external protection of the Guyana Space Centre in Kourou as part of Operation Titan.³⁵ As Kourou is Europe's spaceport and therefore a strategic site, the primary mission of the armed forces in French Guyana is to protect Kourou in all dimensions (land, air, sea, space and cyber).³⁶ The ground protection of the site has been provided by legionnaires since the first launch of the *Ariane 1* rocket in 1979, but since October 2011, the date of the first launch of the Russian *Soyuz* launcher, the ground protection zone has been enlarged, requiring reinforcement provided by soldiers from the 9th Marine Infantry Regiment. The Armed Forces in Guyana permanently committed 25 men/day in the three environments of land, air and sea. Depending on the timing of rocket transfers and launches, the armed forces additionally deploy approximately 250 men for an average of 32 days per year. The Navy intervenes at each launch within a maritime exclusion zone, monitored by both a coastal maritime surveillance launch and a Guyana light patrol boat. For the air component, the two radars of the military control centre ensure permanent surveillance of the sky, so as to guarantee the air safety of the space centre.³⁷ The space and cyber security is ensured by special teams of civilian experts (engineers, computer scientists, technicians, etc.) who work in cooperation with the armed forces responsible for the security of the space centre.³⁸ TITAN deployments are a priority requirement. Commitment to other missions depends on TITAN. Depending on the level of threat and the criticality of the payload, external reinforcements from the mainland may be requested. The annual cost of this operation reaches 37 million euros.³⁹

Conclusion

The European space programme is a strategic priority for the European Union and for all European citizens. Through its space policy, the EU aims to contribute to solving the most pressing challenges of our time. Policy objectives include combating climate change, stimulating technological innovation and realising socio-economic benefits. Space technology, space data and space services have become indispensable in the lives

³⁴ Képi Blanc Opérations 2008: 20–21.

³⁵ THIBAUT 2010: 107.

³⁶ DUMAS 2021.

³⁷ JULIEN 2021: 18–19.

³⁸ LE CORRE 2017: 18.

³⁹ CAMBON et al. 2021: 5–6.

of Europeans. We need them to use mobile phones and car navigation systems, to watch satellite television, to withdraw money. Satellites also provide instant information about disasters such as earthquakes, forest fires or floods, which can help emergency services and rescue teams to coordinate their work.⁴⁰

Achieving these goals requires the safe and cost-effective launch of satellites, which can be best achieved with the help of the Guyana Space Centre. This partnership has been a success for more than forty years and has enabled the European Union to become a major player in the space industry. However, it is also a priority task to guarantee the safety of launches, in which many different military forces are involved. Among these, the 3rd Foreign Infantry Regiment plays a prominent role, and its members have been actively involved in the construction, maintenance and protection of the Space Centre for several decades.

Given that, although officially a regular unit of the French Army, its ranks include members of all the nations of the European Union, its use is also symbolic in the defence of this multinational project.

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⁴⁰ European Commission: European Space Programme.

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