

Weaponization of Space

*A French
Perspective*

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Mouvement de la Paix was founded in 1948 and, in 2018, celebrated its seventieth anniversary. It was created after World War II by prominent personalities such as Pablo Picasso, Frédéric Joliot-Curie and Raymond Aubrac, to oppose wars, and especially nuclear wars. It organises for peace locally and globally, joining the fight against racism, standing up for human rights and opposing nuclear weapons.

This paper examines French attitudes to weapons and nuclear power in space, and surveys peaceful action against it. The first three sections focus on France's current level of participation or not in the militarization of space.

According to non-classified defence information, France runs programmes – either parallel to, or in total collaboration with – other NATO countries in the following areas: 1. Nuclear weapons, 2. Anti-satellite systems, 3. Satellites used for military information and spatial electronic warfare.

Note that France does not participate with NATO on nuclear weapons, even after becoming reintegrated within NATO. It is also important to remember that France is the 5th or 6th biggest arms exporter in the world.

France is a leading country for the use of nuclear power to generate electricity. Technologies that have 'dual use' applications, i.e. for military and civilian purposes, are of increasing importance to research and development in the development of nuclear, imaging and electronic systems and devices.

Nuclear weapons

Programmes for a new generation of nuclear weapons should involve the *Commissariat à l'énergie atomique*, although some changes could be expected after the 'Brexit' vote.¹ One of the major research projects is the Megajoule Laser, part of the simulation programme, which became operational in 2014. This powerful laser is used to study materials under extreme conditions, comparable to those of a nuclear explosion, in a hyper-confined structure. It is currently being used to complete development of the new generation of French M51 missiles.² These are short, medium and long range ballistic missiles as well as those with an intercontinental range for use on French nuclear submarines. The first M51 missile was fired from a submarine in 2016. It should be noted that the French peace movement is fighting against these expansive and dangerous programmes and proposes their abolition.³

Anti-satellite systems

The 1967 Outer Space Treaty forbids placing weapons of mass destruction in orbit around the Earth and, to date, only three nations (USA, Russia and China) have projects to develop anti-satellite weapons. France seems not to have such a programme. There are many risks involved in destroying satellites in space, which include possible damage by debris impact on other satellites or on the International Space Station, which has cosmonauts on board. Some analysts have argued that the 2015 US Space Act⁴ violates the Outer Space Treaty, which states that "outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means".

Satellites used for military information and spatial electronic warfare

There are no international laws or agreements on the use of intelligence gathering or observational satellites for military purposes.⁵ France still has two second generation military satellites – Helios 2A and Helios 2B.⁶ The first of the previous generation, Helios 1A, was launched in 1995. Two other satellites with imaging systems useful for gathering information are Pléiades 1A and Pléiades 1B.

The 'Multinational Space-based Imaging System for Surveillance, Reconnaissance and Observation' (MUSIS)⁷ has six partners – France, Italy, Belgium, Germany, Greece, and Spain – which allows them to share imagery from various military satellites. As a project of the European Defence Agency (EDA), it is managed by the *Organisation conjointe de coopération en matière d'armement* (or OCCAR, the Organisation for

Joint Armament Cooperation) which facilitates and manages collaborative armament programmes through their lifecycle between Belgium, France, Germany, Italy, Spain, and the UK. MUSIS was intended to provide access to a number of missions:

- * the successor of French Hélios 2 called *Composante Spatiale Optique* (CSO – a French military Earth observation satellite programme);
- * the successor of German SAR-Lupe called SARah;
- * the successor of Italian COSMO-SkyMed called COSMO Second Generation (CSG);
- * the Spanish wide area optical satellite Ingenio (formerly known as Seosat).

The first two systems are entirely military, but the other two are dual-use. One satellite, COS 1, was due for launch in 2018 and two others, COS 2 and COS 3, are due for launch in 2021. All of these satellites will be under the control of the French Ministry of the Armed Forces. They could provide information to be used for modelling the terrain, for producing maps for guiding missiles and drones, and helping plan and execute airstrikes by military airplanes.

The battle for public opinion

What does the French population think about these programmes? Are the French still attached to nuclear weapons? The national daily *La Croix* and the French Peace Movement commissioned a survey of 1001 people, the results of which were published on 5 July, 2018. The main lesson from this poll is that a majority of respondents (67%) want France to ratify the treaty to “ban” nuclear weapons. It must be emphasized that French public opinion is generally not very interested in questions concerning nuclear weapons. This result shows that there is an important base who want France to abandon its nuclear forces.

Rather than just trying to convince the countries that have nuclear weapons to reduce their stocks, French peace activists have changed their strategy. They are now trying to convince countries that do not have nuclear weapons to impose a prohibition of this type of weapon of mass destruction.

The French government could always say that it will not be constrained by the ratification of an international treaty for the abolition of nuclear weapons. But there is a precedent that should make French authorities think. This is the *Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water* that France has not signed. This treaty is

known as the *Partial Test Ban Treaty* (PTBT). It was started in 1963. Faced with the fear of international trials France has, however, stopped its nuclear tests in the atmosphere. In concrete terms, the peace activists strategy of change on a global scale aims to force countries like France, which possesses nuclear weapons, to sign the Nuclear Weapon Ban Treaty (NWBT).

Real concern over plans for the militarization of space

Is France preparing to violate the universal principle that prohibits the militarization of space?⁹ Florence Parly, Minister of the Armed Forces, would justify such violations following alleged spying against a French military intelligence satellite revealed in September 2018. Is France following in the footsteps of the US, which has just created its sixth army corps dedicated to the militarization of space? Parly declared on 9 September, 2018, that “my objective is not to make war in space”, but to “protect ourselves”. In September 2018, President Emmanuel Macron announced his intention for France to define “a defence space strategy”. A Ministry of the Armed Forces working group was expected to make proposals on the subject by November 2018.

The US Administration’s decision to create a space force is a dangerous precedent and the lifting of a taboo which calls into question the efforts of China and Russia in the ongoing negotiations on a treaty to prohibit weapons in space. It is essential that France does not follow the path of US policy in terms of space armament, but instead advances the draft treaty calling for the prohibition of weapons in space.

Conclusion and perspectives

The NWBT is already of great value in our campaigns against nuclear weapons. French involvement in space programmes with military connections makes it important to establish a real debate on the need to preserve peace in space. Initiatives against the militarization of space are an essential means of winning the battle of opinion to oppose French militarization programmes in space, and to advance the cause of space as a zone of peace, making France an example for other countries.

Notes

1. A. Pannier, "The Anglo-French defence partnership after the "Brexit" vote: new incentives and new dilemmas," *Global Affairs* 2(5), 481-490 (2016).
2. B. Tertrais, "The last to disarm? The Future of France's Nuclear Weapons," *The Nonproliferation Review* 14(2), 251-273 (2007).
3. Penmarc'h. Tir de M51: le Mouvement pour la Paix a manifesté, Ouest France, June 2016 <https://www.ouest-france.fr/bretagne/pont-labbe-29120/penmarch-tir-de-m51-le-mouvement-pour-la-paix-manifeste-4296616> (in French, accessed October 31st, 2018).
4. H.R.2262 - 114th Congress (2015-2016): U.S. Commercial Space Launch Competitiveness Act, congress.gov, 25 November 2015
5. P. Salzenstein, "Libérer l'espace de l'activité militaire," *Planète Paix* 634, 9 (2018).
6. J. Paolini, "French military space policy and European cooperation," *Space Policy* 4(3), 201-210 (1988).
7. I. Oikonomou, "The European Defence Agency and EU military space policy: Whose space odyssey?," *Space Policy* 28(2), 102-109 (2012).
8. Les Français contre le nucléaire militaire, *La Croix*, 5 July 2018
9. La France se prépare à mener la guerre dans l'espace, *Les Echos*, September 10th, 2018.



Le Mouvement de la Paix