

Commentary on the *Green Paper European Space Policy*

by Regina Hagen¹

According to the first sentence of its *Introduction*, the *Green Paper European Space Policy*,² which was released by the European Commission in January 2003,

„is to initiate a debate on the medium- and long-term future use of space for the benefit of Europe and on policy options available.“

From the answers obtained in the course of the debate, an action plan (*White Paper*) will be drawn up before the end of 2003.

The *Green Paper* suggests that

- Europe needs independent access to space,
- Space applications should be user-oriented and users should contribute to the costs of space applications,
- Output from ISS research should be optimised for scientific and commercial usability,
- Europe should continue and strengthen international co-operation while at the same time maintaining and expanding its own industrial base and infrastructure for space,
- In the framework of CFSP (Common Foreign and Security Policy) and ESDP (European Security and Defence Policy), space use for military purposes should be increased,
- Institutional space responsibilities within the European Union should be reorganised and the European Space Agency (ESA) should become the Space Agency of the European Union.

A few consequences result from these focal points that in my opinion have not been considered sufficiently.

It is in particular doubtful whether the twelve questions put forward in the *Green Paper* are adequate for the postulated aim, namely to structure the debate on medium- and long-term use of space. If taken seriously, such a debate would include broad and open public discussion of the aims, objectives, costs, advantages, dangers, likely developments, and the desirable direction of European space policy as well as on supportive (political) measures – comparable to the public and sometimes heated debate on genetic engineering or on the security of pension funds.

The slippery slope of military space use

This is particularly obvious when it comes to military space use (Chapter 2.3, *Improving the Security of Citizens*, of the *Green Paper*).

Space Use for CFSP and ESDP

The *Green Paper* lists the following military services as key elements for European security:

- optical imaging, infrared, and radar systems (observation and reconnaissance),
- information, command, and control systems (satellite communication).

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² Commission of the European Communities, *Green Paper European Space Policy*, January 21, 2003; <http://www.europa.eu.int/comm/space/doc_pdf/greenpaper_en.pdf>.

This list covers the main components of so-called military C⁴ISR systems (command, control, communication, computer, intelligence, surveillance, and reconnaissance).

Space applications and data have a high *dual use* capability, i.e. they can be used for both civilian and military purposes. An obvious example is the space-based navigation system Galileo, a joint project of the European Union and the European Space Agency, which has originally been justified with strictly civilian purposes. Similarly, GMES (Global Monitoring for Environment and Security), initially designed for environmental uses, offers far-reaching military capabilities. In another context, the European Commission paper refers to organisations like EUMETSAT (meteorology), whose data are very useful for the military.

By relying increasingly on these dual-use capabilities for military purposes and by complementing them with dedicated military systems (e.g. the German radar satellite SAR-Lupe), military dependence from space systems rises. Accordingly, the *Green Paper* concludes,

“In addition, it is important that the services offered by space systems in normal times and crises are adequately protected.” (page 23)

From space militarization to space weaponization?

From here it is only a small step to the statement that (military) space systems might become attractive targets for adversaries in time of conflicts. That was how in January 2001 now-US Secretary of Defense Donald Rumsfeld justified the need to deploy weapons in space in order to protect critical space systems. The *Green Paper* accordingly states,

“The leading power, the United States, uses space systems as an instrument for guaranteeing strategic, political, scientific and economic leadership combining the concepts of ‘space dominance’ and ‘information dominance’.” (page 9)

The European Union and the national governments should be aware that an unexpected side-effect of increasing the militarisation of space might well be the violation of the existing taboo of space weaponization. Therefore, the increased military use of space must be opposed.

Political support for the Prevention of an Arms Race in Outer Space

Accordingly, defining Europe’s space priorities and activities falls short of the actual needs. Political support for the Prevention of an Arms Race in Outer Space (PAROS) must not be limited to verbal declarations at international disarmament negotiations (e.g. the nuclear Non-Proliferation Treaty or the Geneva Conference on Disarmament), but must be reflected in the planned *White Paper*. Both the European Union and its national states should agree to a binding commitment that they will pursue all available means in order to initiate and successfully conclude negotiations on a comprehensive ban of space weapons.

Maintain ESA’s civilian character

Article II of the ESA Convention of 1975 restricts the Agency’s activities “for exclusively peaceful purposes”. This is reflected by ESA’s organisational structure. ESA’s integration in military applications and operations would violate the ESA Convention and would have drastic consequences for the ESA employees, whose main interest is in scientific space research. Military projects require secrecy, therefore ESA projects would have to be classified, employees would have to undergo various levels of clearance, and some project and control teams would be physically separated from the rest. A militarised task spectrum would imply a critical change in ESA strategy with serious implications for the professional self-perception of ESA employees as well as for public perception of spaceflight in Europe.

The case for criteria for space use

Each individual has his or her own moral or ethical reasons to approve or disapprove of military activities. For a state or the European Union, defense and military decisions belong in the political sphere.

General considerations on the justifiability of each space project and its consequences, however, must not be limited to the military use of space. An ongoing debate is e.g. required in the field of manned space missions (should ISS support continue for political reasons, although its scientific and practical use is increasingly doubted and costs continue to explode?, can manned Mars missions be justified and what is their benefit?, etc.) or in the case of nuclear power use for space missions (may nuclear reactors be used to speed up deep space missions? is the use of plutonium generators for deep space missions justified?)

On several occasions, it has therefore been attempted to define criteria for space use. One such criteria catalogue was developed by Jürgen Scheffran in 1997 and refined for the international scientific conference *Space Use and Ethics* that was held at Darmstadt University of Technology in March 1999:³

- Exclude the possibility of severe catastrophe,
- Avoid military use, violent conflict, and proliferation,
- Minimise adverse effects on health and environment,
- Assure scientific-technical quality, functionality, reliability,
- Solve problems and satisfy needs in a sustainable and timely manner,
- Seek alternatives with best cost-benefit effectiveness,
- Guarantee social compatibility and strengthen co-operation,
- Justify projects in a public debate involving those concerned.

Unfortunately, at that time ESA refused to participate in the discussion of criteria for responsible space use and space technology assessment. Instead, ESA and UNESCO held a (closed) workshop on *The Ethics of Space Policy*.⁴ One issue was excluded from the Working Group discussions on purpose: the military use of space, "because this enters into the realm of decision and the strategic sovereignty of States." The Working Group came to rather vague conclusions, such as the need to limit space debris, the inevitability of electronic surveillance based on the use of space technology, the demand for equal access to space data by all countries, and the observation that the "definition of the basis of a space culture has become imperative today." (page 31)

This is not good enough! The European Union and the European Space Agency should urgently define and make public concrete and verifiable criteria for their space missions.

Conclusions

The focus of the *Green Paper* is too narrow. Before a *White Paper* is compiled, it should be ensured that further space-related aspects are discussed, two of which (military use and ethical criteria) have been mentioned in this paper.

Furthermore, the debate on the *Green Paper* has failed its aim to encourage public participation in the discussion on the future of European space policy. The publication of the *Green Paper* was known only to a few insiders, the consultation workshops were not open, and a public debate on the issue was obviously not wanted. Matters of policy are matters of citizens – and citizen participation into this important debate is a must.

³ See Bender, Hagen, Kalinowski, Scheffran, *Space Use and Ethics*, agenda, 2001.

⁴ See Alain Pompidou, *The Ethics of Space Policy*, published by ESA and UNESO/COMEST, June 2000.

Stop the Militarisation of European Space Policy!

„The purpose of the Agency shall be to provide for and to promote, **for exclusively peaceful purposes**, co-operation among European States in space research and technology and their space applications...“

Article II, Purpose, of the ESA Convention, 1975

„Moreover, there are many common features of civil and **military space technologies**, so that it is appropriate to combine resources in the most effective manner...“

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