REPORT

on space capabilities for European security and defence
(2015/2276(INI))

Committee on Foreign Affairs

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(*) Associated committee – Rule 54 of the Rules of Procedure
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(*) Associated committee – Rule 54 of the Rules of Procedure
MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on space capabilities for European security and defence
(2015/2276(INI))

The European Parliament,

– having regard to Title V of the Treaty on European Union (TEU),

– having regard to Titles XVII and XIX of the Treaty on the Functioning of the European Union (TFEU),

– having regard to the request by France of 17 November 2015 for aid and assistance under Article 42(7) TEU,

– having regard to the Council conclusions of 20 November 2015 on enhancing the criminal justice response to radicalisation leading to terrorism and violent extremism,

– having regard to the European Council conclusions of 18 December 2013 and of 25-26 June 2015,

– having regard to the Council conclusions of 25 November 2013 and of 18 November 2014 on the common security and defence policy,

– having regard to the Council conclusions of 20-21 February 2014 on space policy,

– having regard to the progress report of 7 July 2014 by the Vice-President of the Commission / High Representative of the Union for Foreign Affairs and Security Policy (VP/HR) and the Head of the European Defence Agency on the implementation of the European Council conclusions of December 2013, 

– having regard to the Commission’s report of 8 May 2015 on the implementation of its communication on defence, 

– having regard to the joint communication of 11 December 2013 by the VP/HR and the Commission entitled ‘The EU’s comprehensive approach to external conflicts and crises’ (JOIN(2013)0030), and to the related Council conclusions of 12 May 2014, 

– having regard to the statement made by North Atlantic Treaty Organisation (NATO) Secretary-General Jens Stoltenberg at the European Parliament on 30 March 2015 on closer EU-NATO cooperation, 

– having regard to the statements made by US Deputy Defence Secretary Bob Work on 28 January 2015 and 10 September 2015 on the third US Offset Strategy and its implications for partners and allies, 

– having regard to the joint communication of 18 November 2015 by the VP/HR and the Commission entitled ‘Review of the European Neighbourhood Policy’ (JOIN(2015)0050),

Council of 3 April 2014 establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010¹,

- having regard to Regulation (EU) No 1285/2013 of the European Parliament and of the Council of 11 December 2013 on the implementation and exploitation of European satellite navigation systems,


- having regard to Rule 52 of its Rules of Procedure,

- having regard to the report of the Committee on Foreign Affairs and the opinion of the Committee on Industry, Research and Energy (A8-0151/2016),

A. whereas the security environment is becoming increasingly dangerous and challenging, both within and outside the Union, characterised by terrorist attacks and mass murder which affects all Member States and to which Member States must respond by adopting a joint strategy and a coordinated response; whereas those security challenges call for the strengthening of the EU’s security through the continued development and support of the EU Common Security and Defence policy to make it a more effective policy instrument and a real guarantee of the safety of EU citizens and the promotion and protection of European norms, interests and values as enshrined in Article 21 TEU;

B. whereas the EU needs to increase its role as a security provider at home and abroad, ensuring stability in its neighbourhood and globally; whereas the Union needs to contribute to the fight against security challenges, in particular those arising from terrorism both at home and abroad, including by supporting third party countries in combating terrorism and its root causes; whereas the Member States and the Union need to work together on an effective and coherent border management system to secure external borders;

C. whereas the Union needs to enhance its cooperation and coordination with the North Atlantic Treaty Organisation and with the United States, which both remain warrantors of Europe's security and stability, with the United Nations, the Organisation for Security and Cooperation in Europe, the African Union, and other neighbours and regional partners;

D. whereas the Union needs to address the root causes of the challenges to our security, of unrest and armed conflict in our neighbourhood, of migration, of the degradation of people’s livelihoods by state and non-state actors, and of the erosion of states and regional orders, including as a result of climate change and poverty, through a comprehensive rules- and values-based approach to managing crises both inside and outside the Union;

E. whereas satellite capabilities could be used to better assess and identify the flow of

¹ OJ L 122, 24.4.2014, p. 44.
illegal immigrants and their routes, and, in the case of those coming from Northern Africa, to identify the ship-boarding areas in order to engage with them faster and save more lives;

F. whereas the European Council of June 2015, which focused on defence, called for the fostering of greater and more systematic European defence cooperation with a view to delivering key capabilities, including through the coherent and efficient use of EU funds and existing EU capabilities;

G. whereas space policy is an essential component of the strategic autonomy which the EU must develop in order to safeguard sensitive technological and industrial capabilities and independent capabilities to carry out assessments;

H. whereas space capabilities for European security and defence are important and, in some cases, even vital for a multitude of situations, ranging from day-to-day peacetime use to crisis management and more acute security challenges, including full-scale warfare; whereas the development of such capabilities is a long-term venture; whereas the development of future capabilities needs to be programmed when current capabilities are being deployed;

I. whereas the proliferation of space technologies and the rising dependency of societies on satellites increase competition over space assets (paths, frequencies) and make satellites a critical infrastructure; whereas the development of anti-satellite (ASAT) technologies by a number of actors, including orbital weapons capabilities, signals the weaponisation of space;

J. whereas in the area of defence and security the Union might act through, among others, such institutions as the European Defence Agency and the EU Satellite Centre;

K. whereas European space assets have been developed over the last five decades thanks to the coordinated efforts of national space agencies and, latterly, the European Space Agency (ESA); whereas the Outer Space Treaty, the basic legal framework for international space law, was brought into force in October 1967;

L. whereas developing and sustaining space capabilities for security and defence in Europe necessitates effective cooperation and synergy among Member States and with the European and international institutions;

M. whereas the EU's space capabilities should be compatible with the capabilities of NATO and the US, so they can be fully used as a network in the event of crisis;

N. whereas research and development in space technology is a sector with a high investment return that also produces high-quality software and hardware by-products with various commercial use;

I. Considers that space-based capabilities and services play an important role in, among other areas, the context of European security and defence; is convinced that current and future space-based capabilities and services will provide Member States and the Union with improved dual-use operational capacity for the implementation of the common security and defence policy and of other EU policies in areas such as external action,
border management, maritime security, agriculture, the environment, climate action, energy security, disaster management, humanitarian aid and transport;

2. Considers that further implementation of the CSDP is needed; reaffirms the need to increase the effectiveness, visibility and impact of the CSDP; reaffirms the importance and the added value of the Space Policy to the CSDP; considers that space should be included in future Union policies (e.g. internal security, transport, space, energy, research) and that synergies with space should be further strengthened and exploited; underlines that the use of space capabilities in the war against terrorism and terrorist organisations, through the ability to locate and monitor their training camps, is vital;

3. Believes that national governments and the Union should improve access to space-based satellite communication, space situational awareness, precision navigation and Earth observation capabilities, and ensure European non-dependence as regards critical space technologies and access to space; considers that space situational awareness in particular will continue to play a vital role in military and civilian affairs; underlines the commitment to the non-militarisation of space; recognises that in order to achieve this goal, sufficient financial investment is needed; in this connection urges the Commission and the Member States to guarantee the autonomy of the EU as regards space structures, while providing the resources necessary for that purpose; takes the view that this aim is vitally important for civilian activities (in Western countries it is estimated that between 6 and 7 % of GDP is dependent on satellite positioning and navigation technology) and for security and defence; believes that cooperation should be initiated on an intergovernmental basis and through the ESA;

4. Underlines the security dimension of the Copernicus programme, particularly its applications aimed at preventing and responding to crisis, humanitarian aid and cooperation, conflict prevention entailing the monitoring of compliance with international treaties, and maritime surveillance; urges the High Representative, the Commission and the Member States to strengthen the conflict prevention objective of space capabilities;

5. Stress that the EU's space policy promotes scientific and technical progress, industrial competitiveness and the implementation of EU policies, in accordance with Article 189 TFEU, which includes security and defence policy; recalls that the two EU flagship programmes – Galileo and Copernicus – are civil programmes under civil control and that the European nature of Galileo and Copernicus has made these programmes possible and ensured their success; urges the Council, the VP/HR and the Commission to ensure that European space programmes develop civilian space-based capabilities and services with relevance for European security and defence capabilities, particularly through the allocation of adequate funds for research; believes that dual-use capacity of space capabilities is important in order to make the most effective use of resources;

6. Stresses that space programmes have security and defence benefits that are technologically linked to civil benefits and highlights in this connection the dual-use capacity of Galileo and Copernicus; believes this capacity should be fully developed in the next generations, including for example better precision, authentication, encryption, continuity and integrity (Galileo); emphasises that high-resolution earth observation data and positioning systems are useful for applications in the civil and security domains, for instance in the areas of disaster management, humanitarian actions,
refugee aid, maritime surveillance, global warming, energy security and global food security, and in the detection of and response to global natural disasters, notably droughts, earthquakes, floods and forest fires; notes the need for better interaction between drones and satellites; calls for sufficient provision in the mid-term review for all satellite systems’ future development;

7. Considers that a holistic, integrated, long-term approach to the space sector at EU level is necessary; believes that the space sector should be mentioned in the new EU Global Strategy on Foreign and Security Policy, bearing in mind the current development of EU dual-use space programmes and the need to further develop EU civil space programmes that can be used for both civil security and defence purposes;

8. Welcomes the EU-sponsored multilateral initiative towards an International Code of Conduct for Space Activities as a way of introducing standards of behaviour in space as it seeks to achieve enhanced safety, security, and sustainability in space by emphasising that space activities should involve a high degree of care, due diligence and appropriate transparency, with the aim of building confidence in the space sector;

9. Asks the Commission to come up swiftly with a definition of EU needs regarding the potential contribution of the space policy to the CSDP for all the main aspects: launching, positioning, imagery, communication, space weather, space debris, cyber security, jamming, spoofing and other intentional threats, security of the ground segment; considers that future space features of the current European systems should be set according to the CSDP requirements and covering all above related aspects;

10. Calls for the necessary requirements for future systems, private or public, which contribute to safety–of-life applications (e.g. positioning, air traffic management (ATM)) to be defined with regard to protection against possible security attacks (jamming, spoofing, cyber attacks, space weather and debris); considers that such safety requirements should be certifiable and under the surveillance of a European entity (such as EASA);

11. Underlines in this regard that the development of European space capabilities for European security and defence should follow two key strategic objectives: security on the planet through in-orbit space systems designed to monitor the earth’s surface or to provide positioning, navigation and timing information or satellite communications and security in outer space as well as space safety, i.e. security in orbit and in space through ground-based and in-orbit space situational awareness systems;

12. Identifies the dangers of cyber warfare and hybrid threats for European space programmes, taking into account that spoofing or jamming can disturb military missions or have far-reaching implications for daily life on earth; believes that cyber security requires a joint approach by the EU, its Member States, and business and internet specialists; calls on the Commission, therefore, to include space programmes in its cyber security activities;

13. Considers that the coordination of space systems deployed in a fragmented way by the various Member States for various national needs should be enhanced in order to be able to anticipate promptly the disruption of different applications (e.g. for ATM);
14. Stresses that cooperation between the Commission, the European External Action Service, the GNSS Agency, the European Defence Agency, the European Space Agency and the Member States is crucial to improving European space capabilities and services; takes the view that the Union, namely the VP/HR, should coordinate, facilitate and support such cooperation in the area of space, security and defence through a specific operational coordination centre; express its conviction that the European Space Agency should play a significant role in the definition and implementation of a single European space policy which includes security and defence policy;

15. Calls on the European Commission to present results of the established European Framework Cooperation for Security and Defence Research on space and asks for recommendations on how to develop it further; calls on the Commission to clarify how civilian-military research under Horizon 2020 served in the area of space capabilities the implementation of the Common Security and Defence Policy;

16. Welcomes the Framework for Space Surveillance and Tracking Support; calls on the Commission to inform Parliament on the implementation of the framework and its impact on security and defence; calls on the Commission to set up an implementing road map covering the definition of the architecture envisaged;

17. Stresses the strategic importance of stimulating space innovation and research for security and defence; acknowledges the significant potential of critical space technologies such as the European Data Relay System, which enables real-time and persistent earth observation, the deployment of mega-constellations of nanosats and, lastly, building up a responsive space capacity; underlines the need for innovative big data technologies to make use of the full potential of space data for security and defence; invites the Commission to incorporate these technologies in its Space Strategy for Europe;

18. Calls for the development of the EU's various diplomatic initiatives in space issues, in both a bilateral and a multilateral context, in order to contribute to the development of the institutionalisation of space and an increase in transparency and confidence-building measures; stresses the need to intensify work on the promotion of an International Code of Conduct for Outer-Space Activities; encourages the EEAS to consider the space component in negotiations in other areas;

19. Encourages the Member States to carry out and finalise joint programmes and initiatives, such as the Multinational Space-Based Imaging System for Surveillance, Reconnaissance and Observation, the Government Satellite Communication (GovSatcom) and the Space Surveillance and Tracking (SST) programmes, and to pool and share in the area of defence and security, and declares its support for such joint programmes and initiatives;

20. Welcomes the ongoing project of the EDA and ESA on Governmental Satellite Communications (GovSatcom), which is one of the EDA's flagship programmes identified by the European Council in December 2013; calls in this regard on the actors involved to set up a permanent programme and to use the European added value of the EDA for military satellite communication as well; welcomes the successful completion of the DESIRE I project and the launch of the DESIRE II demonstration project for the future operation of remotely piloted aircraft systems (RPAS) in non-segregated airspace
by the EDA and the ESA;

21. Considers that EU-US cooperation on future space-based capabilities and services for security and defence purposes would be mutually beneficial; considers that EU-US cooperation is more efficient and compatible when both parties are at the same technology and capacity level; calls upon any potential technological gap to be identified and addressed by the Commission; notes the work undertaken towards the third US Offset Strategy; urges the Union to take this development into account when preparing its own Global Strategy on Foreign and Security Policy, and to include space-based capabilities for security and defence within the remit of that strategy; believes that pre-existing bilateral relationships between Member States and the US could be utilised where appropriate; invites the VP/HR to discuss with defence ministers the strategic approach to be taken, and to inform Parliament as that debate unfolds;

22. Believes that the EU should continue to facilitate the establishment of an international code of conduct on outer space activities, in order to protect space infrastructure while preventing a weaponisation of space; considers that the development of the space situational awareness (SSA) programme is vital to this; calls for the Union to work towards this objective in cooperation with the UN Committee on the Peaceful Uses of Outer Space and other relevant partners;

23. Recalls the necessary close cooperation between the EU and NATO in the area of security and defence; expresses its conviction that EU-NATO cooperation should cover the building of resilience by the two bodies, in conjunction with EU neighbours, as well as defence investment; considers that cooperation on space-based capabilities and services could offer prospects for improving compatibility between the two frameworks; is convinced that this would also strengthen NATO’s role in security and defence policy and in collective defence;

24. Points out, however, that the EU must continue to try to ensure to the highest possible degree space-related and military autonomy; points out that in the long term the EU must have its own instruments establishing a Defence Union;

25. Considers that the protection of space-based capabilities and services for security and defence against cyber-attacks, physical threats, debris or other harmful interference could offer prospects for EU-NATO cooperation that would result in the necessary technological infrastructure to secure assets, as otherwise the multi-billion investment of taxpayers’ money in the European space infrastructure could be wasted; acknowledges that commercial satellite telecommunications and their increasing use for military purposes put them at risk of attack; invites the VP/HR to keep Parliament informed as EU-NATO cooperation in this area evolves;

26. Considers that the civilian EU programmes in the space domain provide a range of capabilities and services that are of potential use in many sectors including the next stages of evolution of the Copernicus and Galileo systems; notes the need to consider any security- and defence-related concerns from their inception; considers that space situational awareness/space weather, satellite communication, electronic intelligence and early warning are areas that could benefit from greater cooperation between the public and private sectors, additional EU-level support and continuous investment by, and support for, agencies in the space, security and defence fields;
27. Notes the importance of Galileo's Public Regulated Service (PRS) for navigation and guidance of military systems; calls on the High Representative and the EU Member States to increase their efforts regarding a possible revision of the 1967 Outer Space Treaty or to initiate a new regulatory framework that takes account of technological progress since the 1960s and aims to prevent an arms race in space;

28. Notes that transparency and effective public awareness-raising among Europeans of the applications of EU space programmes that have a direct impact on users, such as Galileo and Copernicus services, are crucial to the success of the programmes; thinks that these programmes could be used to increase the effectiveness of strategy-making and operations, in the framework of CSDP; encourages the identification and development of security- and defence-related capacity needs for the next generations of the Galileo and Copernicus systems;

29. Points out the existence of the Galileo Public Regulated Service (PRS), which is restricted to government-authorised users and is suitable for sensitive applications where robustness and complete reliability must be ensured; considers that the capacity of the PRS should be further developed in the next generations in order to respond to evolving threats; calls on the Commission to ensure that the operational procedures are as efficient as possible, particularly in the event of a crisis; stresses the need to continue developing and promoting applications based on Galileo capabilities, including the necessary ones for CSDP, in order to maximise the socio-economic benefits; recalls moreover the need to strengthen the security of the Galileo infrastructure, including the ground segment, and invites the Commission to take the necessary steps in this direction in cooperation with the Member States;

30. Underlines the high level of security for the EU GNSS systems; emphasises the successful execution of tasks assigned to the European GNSS Agency, in particular through the Security Accreditation Board and the Galileo Security Monitoring Centres; calls, in this respect, for use to be made of the expertise and security infrastructure of the European GNSS Agency for Copernicus also; calls for this issue to be addressed in the mid-term review of Galileo and Copernicus;

31. Notes in particular the operational need for very high resolution earth observation data under the Copernicus programme and invites the Commission to assess how this need could be met, taking into account CSDP requirements; highlights developments such as near-real-time observation and video-streaming from space, and recommends the Commission to investigate how to take advantage of these, including for security and defence purposes; recalls moreover the need to strengthen the security of the Copernicus infrastructure, including the ground segment, and the security of the data, and invites the Commission to take the necessary steps in this direction in cooperation with the Member States; points in addition to the importance of considering how industry might become involved in the management of Copernicus operations;

32. Draws attention to the need to improve the process of disseminating information from satellites to users, including by building the necessary technological infrastructure; notes the fact mentioned in the Commission communication that 60% of electronics on board European satellites are currently imported from the US; calls for an initiative on how to protect sensitive and personal data in this context;
33. Welcomes the work being done to provide the EU with autonomous access to governmental satellite communications (GOVSATCOM) and invites the Commission to continue to make progress on this file; recalls that the first step in the process was the identification of civil and military needs by the Commission and the European Defence Agency, respectively, and considers that the initiative should entail the pooling of demand and should be designed in a way that best meets the needs identified; calls on the Commission to make, on the basis of beneficiaries’ needs and requirements, a cost-benefit evaluation of different solutions:

- the provision of services by commercial operators;
- a system relying on current capabilities with the possibility of integrating future capabilities; or
- the creation of new capacities through a dedicated system;

invites in this regard the Commission to address the issue of ownership and liability; notes that, whatever the final decision, any new initiative should be in the public interest and benefit European industry (manufacturers, operators, launchers and other industry segments); considers that GOVSATCOM should also be considered as an opportunity to boost competitiveness and innovation by taking advantage of the development of dual technologies, in the extremely competitive and dynamic context of the SATCOM market; underlines the need to reduce the reliance on non-EU suppliers of equipment and services;

34. Points to the development of Space Surveillance and Tracking (SST) as a good initiative in space cooperation and a step towards security in space; calls for the further development of its own SST capacities as a priority of the Union for the protection of the economy, society and citizens’ safety and in the area of space capabilities for European security and defence; considers that SST should become an EU programme with its own budget while ensuring that the funds for ongoing projects are not thereby reduced; believes in addition that the EU should develop a more holistic space situational awareness (SSA) capacity, with more predictive capabilities, involving the surveillance of space and the analysis and assessment of potential threats and hazards to space activities; invites the Commission therefore to build on SST, by developing a broader SSA concept that would also address intentional threats to space systems and, in cooperation with ESA, take account of space weather and near-Earth objects and the need for research into technological systems for the prevention and elimination of space debris; believes that a holistic coordination of space activities should be reached without hampering the freedom of using space; invites the Commission to examine the possibility of enabling the private sector to play an important role in further developing and maintaining the non-sensitive part of the SST system, for which the two-sided governance structure of Galileo could serve as an example;

35. Underlines the need to develop policies and research capabilities in order to provide future applications and develop a competitive European industry, capable of commercial success based on a healthy economic environment; notices the increasing importance of private entities in the space market; underlines the need for, and the benefits flowing from, the involvement of SMEs in the processes of research, development and production connected to space technologies, particularly those that are
relevant in ensuring security; remains cautious regarding the risks related to unregulated private initiatives with security and defence implications; stresses that the balance between risks and benefits may vary from segment to segment of space activities, and therefore needs to be assessed on a case-by-case basis, in particular in the light of its specific characteristics in terms of sovereignty and strategic autonomy; calls on the Commission and the VP/HR to provide the necessary means to contain those risks;

36. Emphasises that where space is concerned, and given its strategic importance, the onus with regard to investment efforts must be on the public sector; takes the view that the high costs of developing space programmes and infrastructure mean that the only way of ensuring the viability of such projects is through decisive public sector efforts to channel private initiatives;

37. Points out, as regards the future financing of European space programmes, that it would be desirable to determine when it might be possible to use forms of public-private partnership;

38. Points out that the correct regulatory and policy frameworks must be established in order to give industry further impetus and incentives to pursue technological development and research into space capabilities; calls for the necessary funding for space-related research to be ensured in the domains mentioned above; notes the important role that Horizon 2020 can play in helping the EU reduce its dependence in terms of critical space technologies; recalls, in that connection, that the space part of Horizon 2020 falls within the ‘Industrial leadership’ priority, and in particular within the specific objective of ‘Leadership in enabling and industrial technologies’; takes the view therefore that Horizon 2020 should be used to support Europe’s space technology base and space industrial capabilities; calls on the Commission to provide sufficiently for critical space technologies for security and defence during the mid-term review of Horizon 2020;

39. Believes that the EU could play a role in making European space capabilities and services more robust, resilient and responsive; is convinced that a rapid reaction capability to replace or restore damaged or degraded assets in space as a crisis unfolds should be developed effectively through multi-state partnerships, including at European level; commends the ESA’s work on developing a Space Situational Awareness (SSA) programme to detect and predict space debris or satellite collision; underlines the urgent need to reduce the risk of collision arising from the growing number of satellites and space debris; calls on the Commission and the Council to continue the funding of this capability after 2016; welcomes, therefore, the Commission’s initiative on a European space surveillance and tracking system (SST), which will secure EU non-dependence in space; questions whether appropriate governance structures are in place to manage PRS and other key space infrastructure in the event of an armed attack or other major security crisis;

40. Encourages the Commission and the European agencies in the space, security, and defence fields to join forces to develop a White Paper on training requirements vis-à-vis the use of space-based capabilities and services for security and defence; takes the view that EU resources should be mobilised for pilot courses in those areas in which Member States and the competent European agencies have identified an imminent need;
41. Believes that further financial and political support for the development and use of the EU launchers and of the Programme for Reusable In-Orbit Demonstrator in Europe (PRIDE) is of strategic importance, as the demonstrator is more cost-effective and provides independence in space access, as well as a plan for space crisis management;

42. Expresses its concerns about the increased cost of the Copernicus and Galileo programmes far beyond the initial budgetary allocations; express its support for the further development of EU space capabilities, while asking for appropriate management of the financial resources;

43. Calls on those Member States that have not ratified the Outer Space Treaty to do so, given its importance in maintaining law in space;

44. Welcomes the process and plans for the development of new European launchers Ariane 6 and VEGA, and considers the development of these launchers to be crucial to the long-term viability and independence of the European space programmes that serve defence and security purposes; is firmly of the opinion that maintaining the predominant position of European launchers must be a strategic European objective at a time when new competitors are emerging that are strongly backed by competitive funding models; takes the view that in order to achieve that objective, appropriate structural, legislative and funding changes need to be made in order to foster the development of innovative, competitive projects at European level; advocates, among other things, innovation in the reuse of components, as this represents a significant step forward in terms of both efficiency and sustainability; believes that the EU should pay special attention to the impact of certain projects concerning the non-dependence of the EU, such as cooperation with Russia in sensitive areas like satellite launching with Soyuz rockets;

45. Notes the strategic importance of independent access to space and the need for dedicated EU action, including with regard to security and defence, since this capacity would allow Europe to gain access to space in the event of a crisis; calls on the Commission, in collaboration with the ESA and the Member States, to:

- coordinate, share and develop planned space projects and European markets, so that European industry can anticipate demand (thereby boosting jobs and industry based in Europe) and also generate its own demand in terms of business-driven utilisation;

- support launch infrastructure; and

- promote R&D, including through the instrument of public-private partnerships, particularly in breakthrough technologies;

considers that these efforts are necessary to allow Europe to compete in the global launch market; considers in addition that the EU must ensure that it has a solid space technology base and the necessary industrial capabilities to allow it to conceive, develop, launch, operate and exploit space systems, ranging from technological autonomy and cyber-security to supply-side considerations;

46. Considers that the Union should encourage all actors in the technology and know-how supply chains to turn their attention to space-based capabilities and dual-use
technologies of relevance to security and defence, and should promote the development of innovative applications and new business ideas in this area, with a particular focus on small and medium-sized companies and on developing entrepreneurship in this sector; notes that continued financial investment is needed to sustain technological research and development; firmly believes that the public sector must provide incentives for the creation of specialist incubators and funds designed to provide financing for innovative start-ups, so as to ensure that the high costs of space research do not hinder the emergence of innovative projects; calls for a plan for the use of dual-use space technologies in the space sector, aimed at contributing to the development of the European defence industry and to greater competition;

47. Stresses the need to support efforts to strengthen European cooperation in the sector in order to overcome the high level of fragmentation, especially with regard to the institutional demand side; is convinced that only a more cost-effective, transparent and consolidated European space industry can be internationally competitive; stresses that European space industrial policy must be further developed in coordination with the European Space Agency (ESA) in order to ensure complementarities;

48. Recalls that in order to maintain and strengthen the security, defence and stability of Europe it is important to prevent the export of sensitive space technology to countries that endanger regional or global security and stability, pursue an aggressive foreign policy, directly or indirectly support terrorism or repress their people internally; urges the High Representative, the EU Member States and the Commission to make sure that the eight criteria of Common Position 944 and the rules of the Dual-Use Regulation are being fully respected as regards the export of sensitive space-related technology;

49. Stresses the need for better coordination of EU space capacities, by developing the necessary system architectures and procedures to ensure a proportionate level of security, including data security; invites the Commission to draw up and promote a model of governance for each system providing security and defence related services; considers that, in order to provide an integrated service to end users, EU space capacities dedicated to security and defence should be managed by a specific operational service coordination centre (Command and Control Centre as referred to in the Horizon 2020 Work Programme 2014-2015); considers that, for reasons of cost efficiency, this should, if possible, be incorporated into one of the existing EU bodies, such as the European GNSS Agency, the EU Satellite Centre or the European Defence Agency, taking into account the capabilities already offered by those agencies;

50. Considers that creating in the long term a legal framework permitting sustained EU-level investments in security and defence capabilities could foster greater and more systematic European defence cooperation with a view to delivering key capabilities; notes, therefore, the European Council conclusions of June 2015; urges the Council, the VP/HR and the Commission to develop the necessary framework for EU-level funding;

51. Notes that the European space industry is deeply concentrated, with a high degree of vertical integration where four companies are responsible for more than 70 % of total European space employment and where 90 % of European space-sector manufacturing employment is located in six countries; stresses that the potential of countries with good track records in high-technology patent filings but lacking a tradition of space activities
should not be overlooked, and calls for policies to encourage participation of these countries in the European space sector, using inter alia the tools of the 'Horizon 2020' programme;

52. Believes also that research and development in the field of space technology and services should be strengthened within a consistent EU policy framework;

53. Takes the view that an EU-level White Paper on security and defence could be the appropriate means of structuring future EU engagement in space-based security and defence capabilities; calls on the HR/VP to start a debate on defining the EU’s level of ambition in the overlapping fields of space capabilities and security and defence; takes the view that this could also allow coherent development across all capability domains in relation to peace-keeping, conflict prevention and strengthening international security, in accordance with the principles of the United Nations Charter; calls on the Commission to outline in the future European Defence Action Plan its plans on space activities in support of security and defence; recognises simultaneously the benefits of security-related international cooperation with the EU’s reliable partners in the area of space;

54. Recalls that space debris is a growing problem for space security, and calls on the EU to support research and development in active debris removal (ADR) technologies; encourages the EU to invest in the establishment of an international agreement providing a legal definition of space debris, establishing rules and regulations concerning its removal, and clarifying liability issues; stresses the need for an enhanced global space situational awareness mechanism, and calls for the European SSA system to be linked up with partners such as the US, and for more confidence-building measures and information exchange with other counterparts;

55. Instructs its President to forward this resolution to the European Council, the Council, the Commission, the Vice-President of the Commission / High Representative of the Union for Foreign Affairs and Security Policy, the Secretary-General of the United Nations, the Secretary-General of the North Atlantic Treaty Organisation, the EU agencies in the space, security and defence fields, and the national parliaments.
MINORITY OPINION

on space capabilities for European security and defence (2015/2276 (INI))

Committee on Foreign Affairs Rapporteur: Bogdan Andrzej Zdrojewski

Minority Report tabled by GUE/NGL MEPs Sabine Lösing, Javier Couso Permuy

The report calls for the strengthening of EU’s security and defence policy instead of prioritizing civilian capacities of conflict resolution. It further regards space capabilities as appropriate instrument for border management, internal and energy security and to improve the development of a European military-industrial complex. It advocates further militarization of space as well as of the EU.

We object to the report since it:

- calls for securing EU non-independence in space and the strengthening of the EU-US and NATO cooperation on future space-based capabilities/services for CSDP
- supports the continuous investment for agencies in the space, security and defence fields;
- pleads for the use of dual use space technologies in the space sector, aimed at contributing to the development of the European military industry
- demands public funds to be used to provide financing for innovative start-ups to ensure that the high costs of space research do not hinder projects;
- calls for EU resources to be mobilised for 'pilot courses' in order to increase the EU’s space capacities for security and defence;

We demand:
- the strict use of space for civilian purposes;
- a Space Treaty that forbids every military use of space;
- strict civil peaceful approaches to conflict solutions
- no military (research) funding from EU-budget
- separation of EU from NATO and NATO’s dissolution

11.4.2016
OPINION OF THE COMMITTEE ON INDUSTRY, RESEARCH AND ENERGY(*)

for the Committee on Foreign Affairs

on Space capabilities for European security and defence  
(2015/2276(INI))

Rapporteur (*): Marian-Jean Marinescu

(*) Associated committee – Rule 54 of the Rules of Procedure

SUGGESTIONS

The Committee on Industry, Research and Energy calls on the Committee on Foreign Affairs, as the committee responsible, to incorporate the following suggestions into its motion for a resolution:

1. Underlines that the EU’s space policy promotes scientific and technical progress, industrial competitiveness and the implementation of EU policies, in accordance with Article 189 TFEU; recalls that the two EU flagship programmes – Galileo and Copernicus – are civil programmes under civil control and that the European nature of Galileo and Copernicus has made these programmes possible and ensured their success;

2. Considers that further implementation of the Common Security and Defence Policy (CSDP) is needed; reaffirms the need to increase the effectiveness, visibility and impact of the CSDP; reaffirms the importance and added value of space policy to the CSDP, as space capabilities have become an essential part of Member States’ defence and security policies and, therefore, of their sovereignty; considers that space should be included in future Union policies (e.g. internal security, transport, energy, research) and that synergies in the area of space should be further strengthened and exploited;

3. Asks the Commission to come up swiftly with a definition of EU needs regarding the potential contribution of the space policy to the CSDP for all the main aspects: launching, positioning, imagery, communication, space weather, space debris, cyber security, jamming, spoofing and other intentional threats, security of the ground segment; considers that future space features of the current European systems should be set according to the CSDP requirements and covering all above related aspects;

4. Calls for the necessary requirements for future systems, private or public, which contribute to safety-of-life applications (e.g. positioning, air traffic management (ATM)) to be defined with regard to protection against possible security attacks (jamming, spoofing, cyber attacks, space weather and debris); considers that such safety requirements should be certifiable and under the surveillance of a European entity (such as EASA);
5. Underlines in this regard that the development of European space capabilities for European security and defence should follow two key strategic objectives: security on the planet through in-orbit space systems designed to monitor the earth’s surface or to provide positioning, navigation and timing information or satellite communications and security in outer space as well as space safety, i.e. security in orbit and in space through ground-based and in-orbit space situational awareness systems;

6. Stresses that space programmes have security and defence benefits that are technologically linked to civil benefits and highlights in this connection the dual-use capacity of Galileo and Copernicus; believes this capacity should be fully developed in the next generations, including for example better precision, authentication, encryption, continuity and integrity (Galileo); emphasises that high-resolution earth observation data and positioning systems are useful for applications in the civil and security domains, for instance in the areas of disaster management, humanitarian actions, refugee aid, maritime surveillance, global warming, energy security and global food security, and in the detection of and response to global natural disasters, notably droughts, earthquakes, floods and forest fires; notes the need for better interaction between drones and satellites; calls for sufficient provision in the mid-term review for all satellite systems’ future development;

7. Points out the existence of the Galileo Public Regulated Service (PRS), which is restricted to government-authorised users and is suitable for sensitive applications where robustness and complete reliability must be ensured; considers that the capacity of the PRS should be further developed in the next generations in order to respond to evolving threats; calls on the Commission to ensure that the operational procedures are as efficient as possible, particularly in the event of a crisis; stresses the need to continue developing and promoting applications based on Galileo capabilities, including the necessary ones for CSDP, in order to maximise the socio-economic benefits; recalls moreover the need to strengthen the security of the Galileo infrastructure, including the ground segment, and invites the Commission to take the necessary steps in this direction in cooperation with the Member States;

8. Underlines the high level of security for the EU GNSS systems; emphasises the successful execution of tasks assigned to the European GNSS Agency, in particular through the Security Accreditation Board and the Galileo Security Monitoring Centres; calls, in this respect, for use to be made of the expertise and security infrastructure of the European GNSS Agency for Copernicus also; calls for this issue to be addressed in the mid-term review of Galileo and Copernicus;

9. Notes in particular the operational need for very high resolution earth observation data under the Copernicus programme and invites the Commission to assess how this need could be met, taking into account CSDP requirements; highlights developments such as near real-time observation and video-streaming from space, and recommends the Commission to investigate how to take advantage of these, including for security and defence purposes; recalls moreover the need to strengthen the security of the Copernicus infrastructure, including the ground segment, and the security of the data, and invites the Commission to take the necessary steps in this direction in cooperation with the Member States; points in addition to the importance of considering how industry might become involved in the management of Copernicus operations;
10. Welcomes the work being done to provide the EU with autonomous access to governmental satellite communications (GOVSATCOM) and invites the Commission to continue to make progress on this file; recalls that the first step in the process was the identification of civil and military needs by the Commission and the European Defence Agency, respectively, and considers that the initiative should entail the pooling of demand and should be designed in a way that best meets the needs identified; calls on the Commission to make, on the basis of beneficiaries’ needs and requirements, a cost-benefit evaluation of different solutions:

- the provision of services by commercial operators;
- a system relying on current capabilities with the possibility of integrating future capabilities; or
- the creation of new capacities through a dedicated system;

invites in this regard the Commission to address the issue of ownership and liability; notes that, whatever the final decision, any new initiative should be in the public interest and benefit European industry (manufacturers, operators, launchers and other industry segments); considers that GOVSATCOM should also be considered as an opportunity to boost competitiveness and innovation by taking advantage of the development of dual technologies, in the extremely competitive and dynamic context of the SATCOM market; underlines the need to reduce the reliance on non-EU suppliers of equipment and services;

11. Points to the development of Space Surveillance and Tracking (SST) as a good initiative in space cooperation and a step towards security in space; calls for the further development of its own SST capacities as a priority of the Union for the protection of the economy, society and citizens’ safety and in the area of space capabilities for European security and defence; considers that SST should become an EU programme with its own budget while ensuring that the funds for ongoing projects are not thereby reduced; believes in addition that the EU should develop a more holistic space situational awareness (SSA) capacity, with more predictive capabilities, involving the surveillance of space and the analysis and assessment of potential threats and hazards to space activities; invites the Commission therefore to build on SST, by developing a broader SSA concept that would also address intentional threats to space systems and, in cooperation with ESA, take account of space weather and near-Earth objects and the need for research into technological systems for the prevention and elimination of space debris; believes that a holistic coordination of space activities should be reached without hampering the freedom of using space; invites the Commission to examine the possibility of enabling the private sector to play an important role in further developing and maintaining the non-sensitive part of the SST system, for which the two-sided governance structure of Galileo could serve as an example;

12. Underlines the need to develop policies and research capabilities in order to provide future applications and develop a competitive European industry, capable of commercial success based on a healthy economic environment;

13. Notes the strategic importance of independent access to space and the need for dedicated EU action, including with regard to security and defence, since this capacity would allow Europe to gain access to space in the event of a crisis; calls on the Commission, in
collaboration with the ESA and the Member States, to:

- coordinate, share and develop planned space projects and European markets, so that European industry can anticipate demand (thereby boosting jobs and industry based in Europe) and also generate its own demand in terms of business-driven utilisation;

- support launch infrastructure; and

- promote R&D, including through the instrument of public-private partnerships, particularly in breakthrough technologies;

considers that these efforts are necessary to allow Europe to compete in the global launch market; considers in addition that the EU must ensure that it has a solid space technology base and the necessary industrial capabilities to allow it to conceive, develop, launch, operate and exploit space systems, ranging from technological autonomy and cyber-security to supply-side considerations;

14. Points out that the correct regulatory and policy frameworks must be established in order to give industry further impetus and incentives to pursue technological development and research into space capabilities; calls for the necessary funding for space-related research to be ensured in the domains mentioned above; notes the important role that Horizon 2020 can play in helping the EU reduce its dependence in terms of critical space technologies; recalls, in that connection, that the space part of Horizon 2020 falls within the ‘Industrial leadership’ priority, and in particular within the specific objective of ‘Leadership in enabling and industrial technologies’; takes the view therefore that Horizon 2020 should be used to support Europe’s space technology base and space industrial capabilities; calls on the Commission to provide sufficiently for critical space technologies for security and defence during the mid-term review of Horizon 2020;

15. Points out, as regards the future financing of European space programmes, that it would be desirable to determine when it might be possible to use forms of public-private partnership;

16. Stresses the strategic importance of stimulating space innovation and research for security and defence; acknowledges the significant potential of critical space technologies such as the European Data Relay System, which enables real-time and persistent earth observation, the deployment of mega-constellations of nanosats and, lastly, building up a responsive space capacity; underlines the need for innovative big data technologies to make use of the full potential of space data for security and defence; invites the Commission to incorporate these technologies in its Space Strategy for Europe;

17. Identifies the dangers of cyber warfare and hybrid threats for European space programmes, taking into account that spoofing or jamming can disturb military missions or have far-reaching implications for daily life on earth; believes that cyber security requires a joint approach by the EU, its Member States, and business and internet specialists; calls on the Commission, therefore, to include space programmes in its cyber security activities;

18. Stresses the need for better coordination of EU space capacities, by developing the necessary system architectures and procedures to ensure a proportionate level of security,
including data security; invites the Commission to draw up and promote a model of
governance for each system providing security and defence related services; considers
that, in order to provide an integrated service to end users, EU space capacities dedicated
to security and defence should be managed by a specific operational service coordination
centre (Command and Control Centre as referred to in the Horizon 2020 Work
Programme 2014-2015); considers that, for reasons of cost efficiency, this should, if
possible, be incorporated into one of the existing EU bodies, such as the European GNSS
Agency, the EU Satellite Centre or the European Defence Agency, taking into account the
capabilities already offered by those agencies;

19. Considers that the coordination of space systems deployed in a fragmented way by the
various Member States for various national needs should be enhanced in order to be able
to anticipate promptly the disruption of different applications (e.g. for ATM);

20. Recognises at the same time the benefits of security-related international cooperation in
the area of space with EU’s reliable partners.
RESULT OF FINAL VOTE IN COMMITTEE ASKED FOR OPINION

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| Result of final vote | +: 41  
|                    | --: 11  
|                    | 0: 5      |
| Substitutes present for the final vote | Amjad Bashir, Michal Boni, Eugen Freund, Françoise Grossetête, Benedek Jávor, Jude Kirton-Darling, Werner Langen, Marian-Jean Marinescu, Marisa Matias, Sorin Moisă, Clare Moody, Dominique Riquet, Massimiliano Salini, Maria Spyraki, Anneleen Van Bossuyt |
| Substitutes under Rule 200(2) present for the final vote | Momchil Nekov, Jana Žitňanská |
RESULT OF FINAL VOTE IN COMMITTEE RESPONSIBLE

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| **Result of final vote** | +: 42  
| | −: 15  
| | 0: 10  |
| **Substitutes present for the final vote** | Luis de Grandes Pascual, Marielle de Sarnez, Andrzej Grzyb, András Gyürk, Takis Hadjigeorgiou, Marek Jurek, Javi López, Antonio López-Istúriz White, Norbert Neuser, Norica Nicolai, Soraya Post, Marietje Schaake, Jean-Luc Schaffhauser, Helmut Scholz, Traian Ungureanu, Bodil Valero, Paavo Väyrynen, Janusz Zemke |
| **Substitutes under Rule 200(2) present for the final vote** | Doru-Claduian Frunzulică, Monika Hohlmeier, Zdzisław Krasnodębski, Marian-Jean Marinescu, Indrek Tarand, Bogdan Andrzej Zdrojewski, Ivan Štefanec |