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DRAFT REPORT

on safe use of remotely piloted aircraft systems (RPAS), commonly known as unmanned aerial vehicles (UAVs), in the field of civil aviation (2014/2243(INI))

Committee on Transport and Tourism

Rapporteur: Jacqueline Foster

CONTENTS

Page

MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on safe use of remotely piloted aircraft systems (RPAS), commonly known as unmanned aerial vehicles (UAVs), in the field of civil aviation
(2014/2243(INI))

The European Parliament,

– having regard to the Commission communication of 8 April 2014 entitled 'A new era for aviation – Opening the aviation market to civil use of RPAS in a safe and sustainable manner' (COM(2014)0207),

– having regard to the final report of the European RPAS Steering Group entitled 'Roadmap for the integration of civil Remotely-Piloted Aircraft Systems into the European Aviation System',

– having regard to the Riga Declaration on remotely piloted aircraft (drones) – 'Framing the future of aviation',

– having regard to the report of the House of Lords entitled 'Civilian Use of Drones in the EU',

– having regard to the Chicago Convention of 7 December 1944,

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

– having regard to the report of the Committee on Transport and Tourism and the opinion of the Committee on Civil Liberties, Justice and Home Affairs (A8-0000/2015),

A. whereas small, radio-controlled model aircraft have been flown by enthusiasts for many decades; whereas during the last 15 years, there has been rapid growth in the use of RPAS, more commonly known as UAVs or drones; whereas in particular small RPAS, designed for both hobbyist and recreational purposes have become increasingly popular;

B. whereas technology developed primarily for military purposes is now being applied commercially, pushing legislative boundaries; whereas today RPAS also provide significant benefits for different civil uses, such as safety inspections and monitoring of infrastructure (rail tracks, dams, and power facilities), for assessing natural disasters, precision farming operations and media use; whereas the use of RPAS also provide significant environmental benefits;

C. whereas current EU legislation stipulates that the European Aviation Safety Agency (EASA) is, in principle, the certifying authority for RPAS with a maximum take-off mass of more than 150 kg; whereas RPAS of 150kg or less fall under the jurisdiction of the Member State;

D. whereas RPAS regulations exist or are being developed in Austria, Denmark, France, Germany, Italy, Ireland, Spain and the UK[1]; whereas approved flying schools in

[1] http://www.caa.co.uk/default.aspx?catid=1995&pageid=16012

Denmark, the UK and the Netherlands, and more than 500 licenced RPAS pilots in the Netherlands and the UK are already operational;

E. whereas all RPAS rules in place in Europe are tailored to assessing the risk of the operation; whereas such RPAS rules are 'operator centric' and do not take the 'aircraft centric' approach used in manned aviation; whereas the risk depends not only on the type of machine, but also on additional factors, such as the area overflown, the expertise of the operator and the particular type of operation;

F. whereas the potential for growth in this industry, from the manufacturer to the end user is immense, for both large businesses and the supply chain composed of thousands of SMEs alike; whereas it is imperative to maintain world class standards of manufacturing;

G. whereas in recognition of the rapid development of this market, RPAS are rightly being incorporated into existing aviation programmes, such as the Single European Sky Air Traffic Management Research (SESAR) Joint Undertaking and Horizon 2020; whereas industry has already invested significant financial resources;

H. whereas even at this early stage, Member States, industry and the Commission have all recognised the potential of this market and are keen to stress that any policy framework must enable growth in order to compete globally;

I. whereas this nascent market offers significant opportunities for both investment and job creation across the supply chain, whilst recognising at the same time that the public interest must be safeguarded;

I. The international dimension

1. Notes that the US is seen by many as the leading market for the use of RPAS, albeit for military operations; stresses however that Europe is the leader in the civilian sector with 2 500 operators compared to 2 342 operators in the rest of the world;

2. Notes that Japan has a large number of RPAS operators and two decades of experience, mostly in RPAS precision farming operations, such as crop spraying; recalls that it was the first country to allow RPAS technology to be used in farming activities during the mid-nineties and the number of operators multiplied within a few years;

3. Notes that Israel has a very active manufacturing industry, but with a direct focus on military RPAS; underlines the fact that an integrated civil-military air navigation service now makes it easier to integrate RPAS into Israeli airspace;

4. Notes that Australia, China (where many of the very small RPAS are manufactured) and South Africa are among the 50 other countries that are currently developing RPAS;

5. Stresses that the global dimension of RPAS must be acknowledged and calls upon the Commission to take full account of this;

II. State of play in EU Member States

6. Stresses that all Member States have some RPAS activities, either in manufacturing and/or operationally;

7. Underlines the fact that unless an exemption is granted, operating activities are only legal if there is national legislation in place; recalls that this is based on the ICAO rule that all operations performed by unmanned air vehicles must be granted a specific authorisation[1];

III. Key issues

8. Considers that the RPAS sector urgently requires competent authorities to create global rules in order to ensure cross-border RPAS development; underlines the fact that if no action is taken promptly, there is a risk that the economic potential and positive effects of RPAS will not be fully realised;

9. Underlines the fact that safety and security are paramount for any RPAS operations and rules;

10. Underlines the fact that the subject of data protection and privacy is also key in order to facilitate the growth and the safe integration of RPAS into civil aviation, in line with Article 8 of the Charter of Fundamental Rights of the EU and Article 16 of the Treaty on the Functioning of the European Union (TFEU);

11. Agrees with and fully supports the five essential principles for future RPAS development set out in the Riga Declaration:

– RPAS need to be treated as new types of aircraft with proportionate rules based on the risk of each operation;

– EU rules for the safe provision of RPAS services need to be developed to enable the industry to invest;

– Technology and standards need to be developed to enable the full integration of RPAS into European airspace;

– Public acceptance is key to the growth of RPAS services;

– The operator of an RPAS is responsible for its use;

12. Stresses that in the short term, from an ATM perspective, operational procedures are already in place to allow RPAS to fly outside specific and restricted areas; recalls that many civil and military RPAS are flown using dedicated corridors by increasing the standard separation criteria normally used for manned aircraft;

13. Notes that the impact of RPAS on manned traffic is limited due to the small ratio of RPAS to manned aircraft; recognises, however, that air traffic management (ATM) pressures may increase due to the welcome growth of sports and recreational RPAS, but calls for this factor to be taken into account by the relevant authorities in order to ensure

[1] http://www.icao.int/Meetings/UAS/Documents/Circular%20328_en.pdf

a continued efficient standard of ATM across Member States;

14. Underlines the fact that in the long term, technical and regulatory solutions should preferably enable RPAS to use the airspace alongside any other airspace user without imposing on the latter new equipment requirements; notes that that there are a large number of small RPAS operating below 500 feet, together with manned aircraft; stresses that although ANSPs do not provide ATC services at these altitudes, they do have a responsibility to provide sufficient information for both types of aircraft to coexist in the same airspace; notes that EUROCONTROL is supporting states in creating a common understanding of the issues involved and in driving harmonisation as much as possible;

IV. Solutions for the future

15. Believes that a clear, global, harmonised and proportionate regulatory framework needs to be developed on a risk assessed basis, which avoids burdensome regulations for businesses that would deter investment and job creation;

16. Considers that rules at EU and national level should clearly indicate the provisions applicable to RPAS in relation to the internal market and international commerce (production, sale, purchase, trade and use of RPAS); believes also that privacy, data protection and any other applicable law, such as criminal, intellectual property, aviation and environmental law should be specified in a notice for purchasers;

17. Considers that industry and regulators must come together in order to avoid the 'chicken-and-egg' problem, whereby industry is reluctant to invest in developing the necessary technologies without certainty about how they will be regulated, while regulators are reluctant to develop standards until industry comes forward with technologies for authorisation;

18. Considers that in order to ensure the safe operation of RPAS, regulatory requirements will need to be based on either a case-by-case or a type/class-based approach, whichever is appropriate, and shall ensure a high level of safety and interoperability; considers that in order to ensure the success of RPAS manufacturers and operators, it is vital that the European Organisation for Civil Aviation Equipment's (EUROCAE) standardisation requirements be validated by the relevant regulatory body;

19. Considers that future rules on RPAS should address issues relating to:
- airworthiness;
- certification specifications;
- commercial and recreational use;
- owner/operator traceability;
- the approval of training organisations for pilots;
- training and licensing of pilots;
- operations;

20. Underlines that RPAS must be equipped with 'see-and-avoid' technology in order to detect aircraft using the same airspace, ensuring that RPAS do not put at risk the safety of manned aircraft, and in addition, take into account no-fly zones, such as airports and other critical infrastructure;

21. Supports the Commission's intention to remove the 150kg threshold defining the certifying competences between EASA and national authorities;

22. Stresses that the Joint Authorities for Rulemaking on Unmanned Systems (JARUS) is an international voluntary membership body comprising of national civil aviation authorities from 22 EU and non-EU countries and regulatory agencies/bodies; recalls that JARUS is chaired by a representative of EASA, the Agency which will deal with future RPAS regulation; recalls that JARUS's purpose is to develop technical, safety and operational requirements for the certification and safe integration of large and small RPAS into the airspace and at aerodromes;

23. Strongly believes that JARUS is, therefore, ideally placed to quickly and effectively draft global safety regulations for RPAS operations; believes that JARUS should ensure that any future EU rules will be compatible with international arrangements in other countries, through a process of mutual recognition;

24. Considers that Members States' Data Protection Agencies should work together in order to share data and ensure compliance with existing data protection guidance;

25. Recalls that additional technology-specific data protection legislation for RPAS should not be necessary according to the Commission; believes that Member States' data protection agencies should share existing specific data protection guidance for commercial RPAS, and calls on Member States to carefully implement data protection legislation in such a way that both fully addresses the public's concerns regarding privacy and does not lead to a disproportionate administrative burden on RPAS operators;

26. Takes the view that the European Parliament must conclude its opinion prior to the Commission's adoption of its aviation package, thereby also responding to industry's call for clear guidance;

27. Instructs its President to forward this resolution to the Council and the Commission.

EXPLANATORY STATEMENT

I. Steps undertaken by your Rapporteur and her position

At the launch of the Communication, Siim Kallas, the then Vice-President of the European Commission and Commissioner for Mobility and Transport, said: "If ever there was a right time to do this, it is now" - sentiments which have been echoed by Violeta Bulc, his successor as Commissioner, who has prioritised the inclusion of RPAS in the Aviation Package, due by the end of 2015.

Following the publication of the Commission's Communication in 2014, your Rapporteur organised a stakeholders meeting on 27 January 2015 in the European Parliament for representatives of the Commission, EASA and JARUS, SESAR JU, national regulators including CAA and DfT (UK), DfT (NL) as well as service providers NATS and EUROCONTROL, manufacturers BAE Systems, Airbus, Rolls Royce, ASD, and the pilots' union BALPA. Crucially, 'Europe Air Sports', typical of the growing recreational use of RPAS, were also represented.

It was widely recognised by participants that any regulatory framework must be proportionate to enable the sector to grow, while avoiding an unnecessary burden for an emerging industry. In addition, any framework must seek global acknowledgement to stimulate R&D.

In February 2015, during the TRAN delegation to Washington D.C., your Rapporteur met officials from the Federal Aviation Administration (FAA) in charge of the integration of "unmanned aircraft systems" (UAS = RPAS). The FAA has just proposed a regulation that would allow the use of certain small UAS in the US aviation system, while being open for future technological innovations.

Also in 2014, your Rapporteur met with the European Union Committee of the House of Lords who were drafting a report on the Civilian Use of Drones in the UK. Moreover, in March 2015, your Rapporteur addressed the conference on RPAS, organised by the Latvian Presidency in Riga.

The subsequent Riga Declaration sets out five essential principles for future EU focus:

- RPAS need to be treated as new types of aircraft with proportionate rules based on the risk of each operation;
- EU rules for the safe provision of RPAS services need to be developed to enable the industry to invest;
- Technology and standards need to be developed to enable full integration of RPAS into European airspace;
- Public acceptance is key to the growth of RPAS services;
- The operator of an RPAS shall be responsible for its use;

In Riga, the European aviation community committed itself to allowing businesses to provide

RPAS services across Europe from 2016.

The European Commission is preparing a proposal to be adopted by the end of 2015. The Parliament, and in particular our Committee, will play its part and come forward with constructive answers to the challenges that lie ahead. Finally, the clear message of your Rapporteur is to adopt an INI report, with your support and participation, which sends a strong political signal signifying that we are ready, both for this new exciting step forward and to play our full part in building a 21st century civil aviation sector.

II. Glossary

ATM	Air Traffic Management
BALPA	British Airline Pilots Association
CAA	UK Civil Aviation Authority
DfT (UK)	Department for Transport (UK)
DfT (NL)	Department for Transport (Netherlands)
EASA	European Aviation Safety Agency
EUROCAE	European Organisation for Civil Aviation Equipment
FAA	Federal Aviation Administration (US)
ICAO	International Civil Aviation Organisation
JARUS	The Joint Authorities for Rulemaking on Unmanned Systems
RPAS	Remotely Piloted Aircraft Systems
SESAR	Single European Sky Air Traffic Management Research
UAS	Unmanned Aircraft Systems
UAV	Unmanned Aerial Vehicle

III (a). Background information: Outline of the Commission's Communication of April 2014 - COM(2014)207

The Communication outlines how the Commission proposes to address RPAS operations in a future European policy framework. It states that any regulation would need to help develop a commercial RPAS market, while safeguarding public interest.

New standards to regulate the operations of civil RPAS shall be established covering safety, security, privacy, data protection, insurance and liability. The Commission aims to allow the European industry to become a global business leader for this emerging technology.

A legislative proposal is to be adopted by the end of 2015. The Commission notes that the new standards would cover the following areas:

– EU wide rules on safety authorisations: EU standards would be based on the principle that RPAS must provide an equivalent level of safety to 'manned' aviation operations, where appropriate. Moreover, EASA (European Aviation Safety Agency) will start developing EU-wide standards for RPAS;

– Safeguarding privacy and data protection: Data collected by RPAS needs to comply with the applicable data protection rules, and data protection authorities are obliged to monitor the subsequent collection and processing of personal data; the Commission would assess how to ensure that data protection rules apply fully to RPAS and propose changes or specific guidance if needed;

– Controls to ensure security: As RPAS could be used unlawfully, EASA would develop the necessary security requirements, particularly to protect information streams. It would propose legal obligations for all involved - for example, air traffic management, the operator, and telecom service providers - which would be enforced by national authorities;

– A clear framework for liability and insurance: The current third-party insurance regime has been established mostly in terms of manned aircraft, where weight (starting from 500 kilograms) determines the minimum amount of insurance; the Commission would assess the need to amend the current rules taking RPAS into account;

– Streamlining Research and Development (R&D) and supporting new industry: The Commission has indicated that they wish to streamline R&D, in particular the fund managed by SESAR Joint Undertaking, in order to ensure the integration of RPAS into SESAR as soon as possible. SMEs and start-ups in the sector would get industrial support to develop technology under the Horizon 2020 and COSME programmes;

III (b). Example of current authorisation for RPAS in a Member State:

In the UK, the Civil Aviation Authority (CAA) defines 'small unmanned aircraft' as being aircraft of 44lb or less. For this category, safety requirements are covered within Articles 166 and 167 of the UK Air Navigation Order, which state:

1. *The operation must not endanger anyone or anything.*

2. *The aircraft must be kept within the visual line of sight (normally taken to be within 1,640ft horizontally and 400ft vertically) of its remote pilot (i.e. the 'person in charge' of it). Operations beyond these distances must be approved by the CAA (the basic premise being for the operator to prove that he/she can do this safely).*

3. *Small unmanned aircraft (irrespective of their mass) that are being used for surveillance purposes are subject to tighter restrictions with regard to the minimum distances that you can fly near people or properties that are not under your control. If you wish to fly within these minima, permission is required from the CAA before operations are commenced.*

4. *CAA permission is also required for all flights that are being conducted for aerial work.*

5. *The 'remote pilot' has the responsibility for satisfying him/herself that the flight can be conducted safely.*