

Aviation - Policies on drones in the transport sector : EU publishes final Delegated Regulation and Implementing Regulation on the rules and procedures for the operation of unmanned aircraft (drones)

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【概要 : Summary】

Drones or unmanned aircraft systems (UAS) have the potential to improve the transport system in congested cities. However, while the EU's market for private or commercial utilization of drones has been growing quickly in the past years, it lacked of harmonised regulations on the production and safe utilisation of UAS in the EU. Regulations were fragmented and widely different in the individual EU Member States. At the same time, safety problems for manned aviation were continuously rising due to improper use of drones and drone incidents have caused major disruptions at several European airports. This led to the call for harmonising the EU regulation on drones.

In order to establishing and ensuring a safe, secure and clean development of the drone market, the Commission and the EASA needed to develop the basic legislation and measures for a safe operation of drones on a EU-wide level. The EASA Committee's positive vote on the European Commission's proposal for an Implementing Act for regulating the operations of UAS in the open and specific categories in February 2019 was a first important step in the direction of adopting harmonised rules on drones. The Commission adopted the delegated regulation on 12 March 2019 (Commission Delegated Regulation (EU) 2019/945 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems). On 24 May 2019, the next step followed with the European Commission adopting the Commission Implementing

Regulation (EU) 2019/947 on the rules and procedures for the operation of unmanned aircraft (Text with EEA relevance).

Finally, on 11 June 2019, the Delegated Regulation (EU) 2019/945 and the Implementing Regulation (EU) 2019/947 were published in the Official Journal of the European Union. After their coming into force on the 20th day following that of their publication, the EU Member States will have two years to transpose the new law into national law and replace their existing national rules.

The EU rules will apply to all drones regardless of weight and they will apply to all operators of drones, both, professionals and those flying drones for leisure. The regulations not only address safety but also contain important rules to mitigate drone-related security risks. By introducing an operators' registration, remote identification and the definition of geographical zones, all national authorities will have the means to prevent misuse or unlawful drone activities. As of 2020, drone operators will have to be registered with national authorities.

Following the technical requirements for drones, this is another key step to achieve the target in the Commission's Aviation Strategy for Europe, to maintain the highest level of safety and to support the further development of the UAS market in the EU.

【記事 : Article】

1. The Commission and EASA' s preparation of drone related legislation

Drones or unmanned aircraft systems (UAS) are expected to offer many opportunities for new services and business models, particularly in the urban areas. While the market for drones grew quickly in the past years, the EU still lacked of harmonised regulations regarding the production and safe utilisation of UAS, as regulations were fragmented and widely different in the individual EU Member States. At the same time, drones also raise concerns about safety, security and privacy. Safety problems for manned aviation continued to rise as an increasing number of drone incidents posed a threat to the flight operations in European airspace, especially near airports. This led to the call for a harmonisation of EU regulation on drones.

The European Commission proposed the creation of a EU-wide harmonised legislation as part of its Aviation Strategy (COM (2015) 613, 2015/0277(COD)) in December 2015. In order to harmonise the EU's fragmented regulatory framework of safety rules for drones, the Regulation (EU) 2018/1139 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency (EASA) entered into force on 11 September 2018.

This new EASA Basic Regulation (Regulation (EU) 2018/1139) empowers EASA to propose to the European Commission the technical expertise to regulate drones of all sizes, including the small ones. The Regulation also empowers the European Commission to adopt delegated acts laying down detailed rules with regard to the necessary features and functionalities for unmanned aircraft. Accordingly, on 8 October 2018, the European Commission published the Draft Implementing Regulation on the rules and procedures for the operation of unmanned aircraft and the Draft Delegated Regulation on unmanned aircraft. On 28 February 2019, the EASA Committee approved the European Commission's proposal for an Implementing Act. On 12 March 2019, the European Commission adopted the set of common and EU-wide rules on the technical

requirements for drones, the Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third country operators of unmanned aircraft systems (C/2019/1821). It includes the features and capabilities that drones must have in order to be flown safely.

2. The new EU rules on operating UAS

On 24 May 2019, the European Commission adopted the next piece of legislation on the safe operation of UAS or drones, the Commission Implementing Regulation (EU) 2019/947 on the rules and procedures for the operation of unmanned aircraft (Text with EEA relevance). This Implementing Regulation (EU) 2019/947 lays down detailed provisions for the operation of unmanned aircraft systems as well as for personnel, including remote pilots and organisations involved in those operations. Together with the Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third country operators of unmanned aircraft systems (C/2019/1821), the rules in the Implementing Regulation (EU) 2019/947 are applied to all operators of drones, including professionals and those flying drones for leisure. Since no objections were raised by the EU Parliament or by the EU Council, both regulations, the Delegated Regulation (EU) 2019/945 and the Implementing Regulation (EU) 2019/947, could be published in the European Union's Official Journal on 11 June 2019. They will enter into force on the twentieth day following that of their publication in the Official Journal of the European Union.

The new rules include technical as well as operational requirements for drones. The Commission's delegated regulation (EU) 2019/945 lays down the requirements for the design and manufacture of UAS. It also lays down rules for third-country UAS operators, when they conduct a UAS operation pursuant to Implementing Regulation (EU) 2019/947 within the single European sky airspace. The operation conditions are defined in the Implementing Regulation (EU) 2019/947.

Based on the legislation, new drones will have to be individually identifiable, allowing the authorities

to trace a particular drone if necessary. This will help to better prevent incidents with drones like those at Gatwick and Heathrow airports in 2018. On the other hand, the rules cover each operation type, from those not requiring prior authorisation, to those involving certified aircraft and operators, as well as minimum remote pilot training requirements. The Regulation (EU) 2019/947 lays down detailed provisions for the operation of UAS as well as for personnel, including remote pilots and organisations involved in those operations. It defines the rules and procedures for the competency of remote pilots, minimum age for remote pilots, rules for conducting an operational risk assessment, authorising process of operations in the “specific” category, the specifications of registration of UAS operators and certified UAS and the Member States’ authority to establish no-fly zones, among others. As of 2020, drone operators will have to be registered with national authorities. Through operators’ registration, remote identification and definition of geographical zones, all national authorities will have the means to prevent misuse or unlawful drone activities. Thereby, the rules will help to protect the safety standards in airspace and at the same time enable the free circulation of drones and a level playing field within the EU.

The Commission Implementing Regulation (EU) 2019/947 lays down detailed provisions for the operation and for personnel, including remote pilots and organisations involved in those operations on the rules and procedures for the operation of unmanned aircraft. UAS operations in the “open” category will not be subject to any prior operational authorisation, nor to an operational declaration by the UAS operator before the operation takes place. Instead, UAS operations in the “specific” category will require an operational authorization, while UAS operations in the “certified” category will require the certification of the UAS pursuant to Delegated Regulation (EU) 2019/945 and the certification of the operator and, where applicable, the licensing of the remote pilot. As of June 2020, operators of drones will need to register in the EU Member State where they reside or where they have their main place of business. Once authorised in one EU Member State, both professional and recreational operators can fly their drones across the EU.

According to the European Commissioner for Transport Violeta Bulc, the Commission’s decisions are vital for the further development of the European drone sector. It supports the development of new drone technologies and services while ensuring their safe operations in the common EU airspace they share with manned aircraft.

The Categories and operation conditions of UAS

| Category of operations | Open <i>low risk</i> | Specific <i>medium risk</i> | Certified <i>high risk</i> |
|------------------------|---|--|--|
| Authorisation needed | None | Authorisation from NAA based on operational risk assessment or specific scenario | Authorisation from NAA/EASA |
| UAS | Compliant with Commission Delegated Regulation on UAS | Compliant with requirements included in the authorisation | Certified UAS |
| Operations allowed | Restricted to: <ul style="list-style-type: none"> ▪ VLOS ▪ Altitude < 120 m ▪ Other limitations defined by: <ul style="list-style-type: none"> - Commission Regulation on UAS operations - National airspace zones | Restricted to: <ul style="list-style-type: none"> ▪ Operations specified in the authorisation ▪ Limitations defined by national airspace zones | Controlled airspace U-Space |
| Regulations | Commission Regulation on UAS operations in open and specific | | Revision of existing aviation regulation |
| | Commission Delegated Regulation on UAS | No regulatory requirement (UAS requirements included in the authorisation) | |

Source: <http://dronerules.eu/assets/covers/Table-1.png>

3. Conclusion and the further way forward

The EU and the EASA needed to develop a safe drone services market by 2019, with the basic legislation and measures for registration, e-identification and geo-fencing for achieving a regulatory framework for the safe utilisation of drones. The EU’s harmonised regulatory framework will cover all type of existing and future drone operations and include technical as well as operational requirements for drones. They replace existing national rules in individual EU Member States. They are also expected to support the development of innovative applications and the creation of a European market for UAS, including the deployment of the Unmanned Traffic Management System

U-Space.

Through operators' registration, remote identification and definition of geographical zones, all national authorities will have important means at hand to prevent misuse or unlawful drone activities. Starting from June 2020, the majority of drone operators will need to register themselves before using a drone, either where they reside or have their main place of business. By 2022, the transitional period will be completed and the new rules will be fully applicable in the entire EU.

Finally, the European Commission and EASA will soon publish guidelines and so-called "standard scenarios" for drone operations that are intended to help drone operators to comply with the adopted rules. The European Commission is also developing an institutional, regulatory and architectural framework for the provision of U-space services, which aim to enable complex drone operations.

According to EASA executive director Patrick Ky, "Europe will be the first region in the world to have a comprehensive set of rules ensuring safe, secure and sustainable operations of drones both for commercial and leisure activities."

The harmonization of drone rules is also expected to be welcomed by diligent drone operators in Europe, in order to have a framework of proper rules at hand they can rely on and that is valid in all EU Member States.

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