

UAS Legislation in JAPAN

2017 EASA-FAA International Aviation Safety Conference

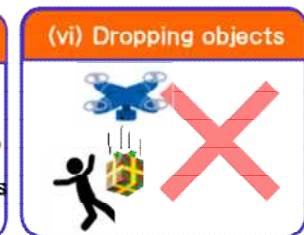
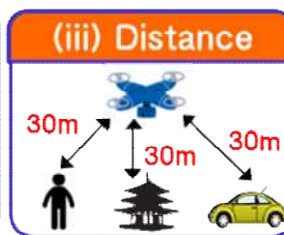
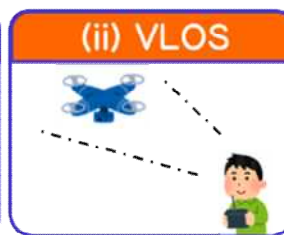
Technical Session 3:

Challenges and Opportunities: Unmanned Aircraft System (UAS)

Mitsuo Kawakami
Airworthiness Division
Civil Aviation Bureau, MLIT

Civil Aeronautics Law (CAL) was amended and became effective on Dec 10, 2015 to regulate the flights of unmanned aircraft (UA). UA is prohibited from flying near airports and over densely populated areas and important facilities.

- “UA” is defined as *any machine that has no capability to accommodate any person on board, and flies remotely-piloted or autonomously, including airplane, rotorcraft, glider or airship. (Excluding those lighter than 200g, including the weight of its battery)*
- Special permission required for the UA operation in the following airspace:
 - a. Airspace above 150m above ground level.
 - b. Airspace above obstacle limitation surfaces around airports.
 - c. Above densely populated residential area (DID: Densely Inhabited Districts)
- Required to follow the operational conditions listed below, unless approved by MLIT
 - i. Operation of UAs in the daytime.
 - ii. Operation of UAs within Visual Line of Sight (VLOS).
 - iii. Maintenance of 30m operating distance between UAs and persons or properties.
 - iv. Do not operate UAs over event sites where many people gather.
 - v. Do not transport hazardous materials such as explosives by UA.
 - vi. Do not drop any objects from UAs.



- Safety standards for permission/approval are respectively set to
 - (1) the specifications and performances of the UAs,
 - (2) required skills and knowledge of the operators, and
 - (3) the systems and procedures for the UA flight.

The standards consist of minimum standards and additional standards for each flight situation, such as operations above DID, during night-time, BVLOS, etc.

- The rules are applied irrespectively of the purposes (commercial* or recreational) of the flights.

* Aerial Shoot, Aerial Survey, Air surveillance, Agrichemical-spraying etc.

- Since the effective date of Amended CAL (Dec. 10, 2015), over 10,000 permissions issued for one year
- Civil Aviation Bureau of Japan (JCAB) encourages the operators to report UA-related accidents/incidents, regardless of approved/un-approved flights, for further rule-makings. JCAB publishes the summary of the reported issues, in order to avoid same types of accidents:
 - FY27*: <http://www.mlit.go.jp/common/001125882.pdf>
 - FY28*: <http://www.mlit.go.jp/common/001132992.pdf>

* Published only in Japanese

*“We aim to realize UA-use delivery within three years.
Then, we immediately formulate “Public-Private Council”
to discuss concrete contents of this system
by users and relevant government agencies.
The Council will set out a basic policy
before next summer (2016). ”*



(Statement by PM Shinzo Abe at the 2nd Public-Private Dialogue (held on Nov. 5, 2015) on investment for the future)

Public-Private Sector Conference on Improving the Environment for UA

(Held 6 times from Dec. 2015)

Main study items

1. Institutional design for safety of UA
2. Proper understanding of operation of amended Aeronautical Act, and systematization and sharing of safety measures
3. Improvement of environment for promotion of business making use of UA
4. Verification of voluntary efforts to ensure safety of UA
5. Improvement of environment toward realization of “Aerial Industrial Revolution”

Direction of Institutional Design (July 2016)
Roadmap for the Aerial Industrial Revolution (May 2017)

- The Public-Private Sector Conference released a “Direction of Institutional Design (Basic policy of system design) toward securing further safety of UA” in July 2016, and also released “Roadmap for the Aerial Industrial Revolution” in May 2017.
- In accordance with the report, we are considering the following issues:
 - Develop the scheme for UA-logistics/distributions over *un-populated areas* (~ around 2018);
 - Develop airworthiness certification and remote pilot certification system for UA-logistics/distributions in *populated areas* (~ 2020s); and
 - Make rules to avoid collisions with manned aircraft and UA
- We are facing challenges to ensure aviation safety/safe operation of UA and promotion of business utilizing UA at the same time, in the light of technology development.

Currently, international rulemaking activities regarding UA are on going. Collaborative approach is a key to establish harmonized standards for ensuring aviation safety and promotion of business utilizing UA.