Collaboration, Harmony Key For International Drone Rules

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The Federal Aviation Administration’s Small Unmanned Aircraft Rule, called Part 107, broadly authorized simple, visual line-of-sight operations with drones that weigh less than 55 pounds. Part 107 was considered by most to be a strong first step toward integrating drones into the national airspace.

But that is all it was — the first in a series of what were supposed be incremental regulations to foster this growing industry and enable safe operations.

Now, however, President Trump’s Jan. 30, 2017, executive order requiring government agencies to identify two existing regulations to repeal before publicly proposing a new regulation is hampering the unmanned aircraft systems (UAS) industry’s ability to move beyond Part 107.

Notwithstanding the domestic slowdown, other countries and international regulatory and standard-setting bodies are taking steps to move the industry forward and provide certainty to operators and manufacturers.

In the last month alone, the European Aviation Safety Agency (EASA) and the International Civil Aviation Organization (ICAO) have both taken steps toward the future regulation of drones and the airspace in which they operate. These are welcome efforts as the drone industry expands its global reach.

EASA Notice of Proposed Amendment 2017-05(A)

EASA regulation of drones envisions different requirements depending on the “category” of the operation. There are three possible categories based the operation’s risk profile: (i) open, (ii) specific and (iii) certified.

The EASA’s Notice of Proposed Amendment 2017-05(A) (the EASA regulation) provides a regulatory framework for the operation of drones in the “open” and “specific” categories, and differs from Part 107 in material ways.

For example, while both the EASA regulation and Part 107 rely on operator competencies and operational limitations, the EASA regulation also proposes design requirements for UAS. Although these
requirements may seem like an additional burden on the industry, they enable EASA to allow UAS operations over people as well as extended operations, meaning those operations beyond the visual line of sight of the operator.

The EASA regulation also enables a level of automation, requiring only that the remote pilot “shall have the ability to take control of the UA,” and not that the remote pilot have control of the UA at all time. Part 107 does none of this.

With regard to the “open” category, the EASA regulation creates three subcategories that are regulated based on the risk profile of the operation: A1 (safest operation, least restrictive regulation); A2; and A3 (riskiest “open” category operation, most restrictive regulation). These subcategories exemplify EASA’s commitment to developing a regulatory framework that is operation-centric and performance based. For demonstrably safer operations, less regulatory burdens apply.

“Specific” category operations have a higher risk profile than “open” category operations, and thus require either (i) a “standard scenario,” e.g., a UAS operation for which mitigation measures have already been determined by EASA; or (ii) an authorization from the competent authority before the operation takes place, accounting for mitigating measures identified in a risk assessment completed by the operator before the operation commences.

The EASA regulation also sets forth principles applicable to all UAS operations that fall within its scope. These include that:

- The UAS operator is responsible for the safe operation of the UAS.
- The UAS operator shall register the UAS.
- The UAS must be equipped with an electronic identification system and geo-fencing system (when required for the operation).
- EU Member States may designate airspace areas or special zones where UAS operations are prohibited or restricted.

It is evident that EASA’s operation-centric, risk-based approach will enable more operations than Part 107 does, though with different regulatory burdens depending on the type of operations.

“Certified” operations are notably carved out of the EASA regulation. These are operations that the EASA views as “higher risk” and believes “should be regulated by similar rules for manned aircraft, which include the certification of the aircraft.”

At the present time, the EASA lacks jurisdiction to regulate most operations that would fall into the “certified” category, because it is not statutorily authorized to regulate UAS with a maximum takeoff weight of more than 150 kg. This is likely to change soon, though, as the EASA is considering a new regulation that would extend its authority to regulate all UAS, regardless of takeoff weight.

Once the EASA has the authority to regulate UAS over 150 kg, we expect it to publish a framework for “certified” operations. Such a framework would allow member states to “opt in,” relieving from needing to develop their own, independent certification bases for these complicated, heavier UAS operations. This would be a welcome step toward harmonized certification standards for larger UAS.

ICAO Global Framework
The ICAO’s Remotely Piloted Aircraft Systems Panel has been working for years already to develop standards and recommended practices (SARPs) for international flights in instrument flight rules. This process has been slow and has been criticized for lacking industry involvement.

But the ICAO may be trying to turn over a new leaf. On May 10, 2017, the ICAO announced an initiative to develop a “global framework” to help manage drone air traffic, referred to as UAS Traffic Management (UTM). As part of the initiative, it issued a request for information to the broader industry, academic and science communities on what issues should be prioritized for its eventual plan.

The ICAO identified three components that must be addressed as a matter of priority: (i) registration systems; (ii) communications systems; and (iii) geo-fencing systems.

Notably, UTM efforts are already well under way in the United States (spearheaded by NASA), and we expect that participants in that process will bring their expertise to bear on the ICAO initiative.

**What’s Next?**

Around the world and here in the United States, pieces of the regulatory puzzle for drones are slowly starting to fall into place. But governments, international organizations and industry need to make sure that these pieces fit together, lest we be left with a patchwork of complicated regulations.

Collaboration and global harmonization are key for industry to fully realize the benefits of UAS technology. The recent developments at the EASA and the ICAO are good first steps, but the burden is on industry to make sure things keep moving forward.

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