



# Aviation Lighting and Marking – harmonisation across Europe

Andy Wells, UK CAA  
26 September 2018

# Overview

- Global – regional - national policy development
- Harmonisation issues

# International Civil Aviation Organisation



- ICAO works to facilitate a civil aviation that is safe, efficient, secure, economically sustainable and environmentally responsible.
- Develops Standards and Recommended Practice (SARPs) - restricted to essential requirements.
- 4 Cs approach:
  - ❖ Cooperation
  - ❖ Consensus
  - ❖ Compliance
  - ❖ Commitment
- Manuals provide information to supplement SARPs. Designed to facilitate implementation.

# ICAO Annex 14 Vol I Nov 2016

- Paragraph 6.2.4 gives a *recommended practice* covering the lighting of wind turbines
- Note to paragraph states that “Additional lighting or markings may be provided where in the opinion of the State such lighting or markings are deemed necessary.”
- Sets out requirements for the lighting of turbines:
  - ❖ Less than 150 m in overall height;
  - ❖ 150 m to 315 m in overall height (includes a provision concerning a second light serving as an alternate in case of failure of the operating light); and
  - ❖ Greater than 315m in overall height.

# ICAO Developments (ADOP)

## Chapter 6, Visual Aids For Denoting Obstacles

### 6.1 Objects to be marked and/or lighted

- Note 1.— The marking and/or lighting of obstacles is intended to reduce hazards to aircraft by indicating the presence of the obstacles.
- Note 2.— An autonomous aircraft detection system may be installed on or near an obstacle (or group of obstacles such as wind farms), designed to operate the lighting only when the system detects an aircraft approaching the obstacle, in order to reduce light exposure to local residents.
- Guidance to be included in the Aerodrome Design Manual (Doc 9157), Part 4. The availability of such guidance is not intended to imply that such a system has to be provided.

# European Aviation Safety Agency

- EASA develops common safety rules at the European level.
- EU Reg No. 139/2014 (Aerodrome Regulation) implements ICAO Annex 14 in statute law for EU States.
- EASA Certification Specifications (CS) are technical standards adopted to show compliance with the requirements of the law.
- Community Specification ADR-DSN.Q.851 Marking and lighting of wind turbines implements the ICAO Recommended Practices.

# UK Activities

- Follows *Good Regulation* Principles, including Regulatory Impact Assessments (RIAs) and Post Implementation Reviews (PIRs):
  - ❖ Proportionality
  - ❖ Accountability
  - ❖ Consistency
  - ❖ Transparency
  - ❖ Targeting
- Policy Statement issued on 150m+ turbine lighting
- Policy Statement under development for autonomous aircraft detection systems.

# Considerations for harmonisation

- Identifying needs early
- Sharing practices
- Industry-produced material
- Lobbying
- Formal studies
- Information gathering / publications
- Prescriptive requirements vs flexibility