aviation. However, there is a wide range of RPAS types with unlike operational characteristics and performances. These projects have been useful to test a significant example of RPAS, however to ensure that controllers are appropriately trained to work in mixed environments a full range of unmanned aircraft types should be included in training programs. For this, it is needed to identify the types of RPAS that are more likely to operate in each environment as it is expected that due to the operational needs not all RPAS will use the same airspace.

To achieve a complete understanding of the impact that these new airspace users will have on human roles, especially air traffic controllers, it would be desirable to conduct a sensitivity analysis based on two factors: the type of RPAS and the number of them. It is expected that with an increasing sample of RPAS the workload and stress of human beings would increase and the same trend is anticipated to occur with low performance RPAS.

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REFERENCES

- [1] SESAR2020 Transition Performance Framework, B.04.01-D108.
- [2] SESAR Human Performance Reference Material Guidance, P. 16.06.05-D26
- EUROCONTROL ATM Lexicon <u>https://extranet.eurocontrol.int/http://atmlexicon.eurocontrol.int/en/</u> <u>index.php/SESAR</u>
- [4] ATM Master Plan. https://www.atmmasterplan.eu
- [5] DEMORPAS Demonstration Report, date xxx
- [6] ARIADNA Demonstration Report, date xxx
- [7] Operational Focus Area, Programme Guidance, Edition 03.00.00, date 4.05.2012.
- [8] SJU Communication Guidelines.
- [9] SJU Execution Guidelines.
- [10] Annex 2 (to the Convention on International Civil Aviation, Doc. 7300)
 Rules of the Air. International Civil Aviation Organization (ICAO).
 43rd Amendment. 2012.
- [11] Roadmap for the integration of civil Remotely-Piloted Aircraft Systems into the European Aviation System. European RPAS Steering Group (ERSG). June 2013.
- [12] Regulation (EC) No 216/2008 of the European Parliament and of the Council on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC. February 20th, 2008.
- [13] ICAO Doc. 8168 Procedures for Air Navigation Services Aircraft Operations (PANS-OPS). International Civil Aviation Organization (ICAO).
- [14] ICAO Doc. 9906 Quality Assurance Manual for Flight Procedure Design. International Civil Aviation Organization (ICAO).
- [15] ICAO Doc. 4444 Procedures for Air Navigation Management