FROM INNOVATION TO SOLUTION

European RPAS Roadmap
RPAS Activities in SESAR 2020

11th USA/Europe

Air Traffic Management R&D Seminar

Lisbon, Portugal - June 26th 2015

SESAR JOINT UNDERTAKING

founding members
EUROPEAN UNION   EUROCONTROL

European Vision for RPAS integration

Riga Summit March 6th 2015

- RPAS need to be treated as new types of aircraft with proportionate rules based on the risk of each operation

- EU rules for the safe provision of drone services need to be developed now

- Technologies and standards need to be developed for the full integration of RPAS in the EU airspace

- Public acceptance is key to the growth of RPAS services

- RPAS operator is responsible for its use

Everywhere in Europe as from 2016 onwards

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SESAR ConOps and RPAS

SESAR ConOps fully recognises RPAS:

"The Concept of Operations at a Glance" updated to solve deficiencies in relation to Military and GA/Rotary operational needs and constraints

SESAR ConOps responds to the operational vision and operational objectives developed by the airspace users with due regard to the evolving capabilities and requirements of service providers and airports, whilst considering the characteristics of every type of aircraft that requires access to the airspace

SESAR JU and RPAS

- RPAS Definition Phase

- EU ATM Master Plan 2015

- SESAR 2020 Programme

- Link to SES framework

- RPAS Market View Study

Global cooperation & Interoperability

Standards built on SESAR and NextGen developments will support harmonised Implementation and Regulation

Global consensus to ensure global interoperability

Industry Standards

ICAO
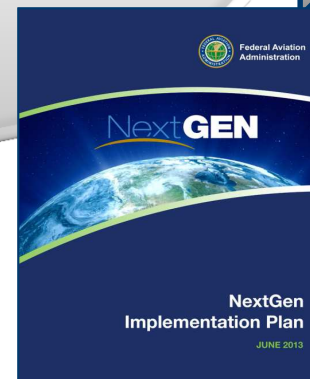
ICAO GANP/ASBU´s

EUROCAE WG RTCA SC

SESAR

NextGen

EU/SJU - US/FAA Coordination

EU-US MoC SESAR-NextGen Coordination Activities

Harmonisation towards global interoperability standards with wide industry buy-in

THE ROADMAP FOR SUSTAINABLE AIR TRAFFIC MANAGEMENT
European ATM Master Plan
EDITION 2
OCTOBER 2012

Federal Aviation Administration
NextGEN
NextGen Implementation Plan
JUNE 2013

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11th USA/Europe ATM R&D Seminar

Technical outcome of the Definition Phase

- RPAS integration requirements must be linked to the EU ATM Master Plan and the ICAO Global Plan/ASBU timeline

- RPAS will have to fit into the ATM system (and not the reverse), with required adaptations to enable the safe integration of unmanned systems

- RPAS will have to prove to be as safe as current manned vehicle operations and their behavior in operations to be equivalent to manned aviation

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For a full RPAS integration

- Full range of activities defined in the EU Roadmap for civil operations
- Ensures efficient and safe integration (analogue to manned aircraft)
- Remove the obstacles to operate in airspace either as IFR or VFR
- VLL operations like B-VLOS could be considered in various ATM and airspace environments
- Synergies with Military and GA/Rotary operations and enabling technology

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to summarize,

- EU civil RPAS roadmap was the foundation for the work

- Link to SESAR solutions based on technical detailed information or on best judgment

- Further work is requested to provide a stronger connection with the ATM Master Plan

- Relationship with SESAR 2020 projects identified - ultimately dependent on priorities

- Complement work needed to:
  - Understand the RPAS value chain
  - Establish the RPAS market
  - Provide a systemic view of safety, security, economic efficiency…

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