WEBINAR SUMMARY

Subject	Digitalisation
Date	04 November 2021
Location	On-line event

Organised by   **Bernard Bourdon, Flight Standards Directorate**

List of Participants

Panelists	1.	Bernard BOURDON	EASA
	2.	Alessandra SPACCATROSI	EASA
	3.	Anita STALLER	Austrocontrol
	4.	Lourdes RODRIGUEZ BENITEZ	AESA
	5.	Diarmuid HEALY	ALI
	6.	Luigi CAREDDU	Swiss AS/AMOS
	7.	Dragos MUNTEANU	IATA

AGENDA

Related Links/ Documents:
Digitalisation in the aviation industry - Webinar recordings (YouTube Playlist) https://www.youtube.com/playlist?list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF

MoM prepared by	Alessandra SPACCATROSI	**15 Nov 2021**	
MoM reviewed by	Bernard BOURDON	**15 Nov 2021**	

1   Welcome

*Pre*sented by: Antonio GONZALEZ

Antonio GONZALEZ opened the event and provided the event agenda

2   Introduction

*Pre*sented by: Bernard BOURDON

Bernard BOURDON introduction
https://www.youtube.com/watch?v=PM-zEAJRRrU&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=1

3   Results of the 2021 EASA digitalisation surveys

*Pre*sented by: Alessandra SPACCATROSI

Alessandra Spaccatrosi presented the results of the 2 surveys on digitalisation the Flight Standards Directorate organised in June 2021. Registration available from:
https://www.youtube.com/watch?v=EAdozYnqQGM&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=2

4   Austro Control GmbH (ACG) – Digitalisation Strategy

*Pre*sented by: Anita STALLER

Anita STALLER took the audience through the strategic approach for digitalisation of Austro Control GmbH and the lessons learned during the process. She presented the Austrian E-Government ToolBox and Digital Signed Certificates. Registration available from:
https://www.youtube.com/watch?v=uNKHjVBQbn4&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=3

5   AESA Spain - EASA Digitalisation Workshop CSI

*Pre*sented by: Lourdes RODRIGUEZ BENITEZ

Lourdes RODRIGUEZ BENITEZ presented the Spanish regulation on electronic services, the document lifecycle, and the evolution of digitalisation in AESA. Registration available from:
https://www.youtube.com/watch?v=nHPHBVICyTA&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=4

6   Aircraft Leasing Ireland - Digitalisation in the Aviation Industry

*Pre*sented by: Diarmuid HEALY

Diarmuid HEALY presented the Lessors' perspective on digitalization and reflected on the current challenges and proposed a number of possible steps for the future (use of Spec 2500, agreed global standards, full sets of digital records). Registration available from:
https://www.youtube.com/watch?v=R3MrY4MGmC8&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=5

FS.0.1 - Digitalisation in the aviation industry - Be part of the change – 04 Nov 2021

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7 Swiss AS - Digitalisation in the Aviation Industry
*Pre*sented by: Luigi CAREDDU

Luigi Careddu from Swiss AS Ltd. Introduced the company's integrated MRO solution called AMOS and then moved on to electronic signatures. He pointed out some pain points and possible solutions (guidance material to help the harmonisation of national requirements, the acceptance of trust services used within closed systems, increased use of EASA Non Technical Objection (NTO)). Registration available from: https://www.youtube.com/watch?v=Jvz4BJJHwaM&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=6&t=6s

8 IATA - Digitalisation in the Aviation Industry
*Pre*sented by: Dragos MUNTEANU

Dragos MUNTEANU presented the issues and needs of the industry (global reciprocal recognition of digital documents, approvals, certificates and licences, cybersecurity, data protection, data harvesting, ATA standards etc) and called on the regulators to quickly provide not prescriptive support for the global acceptance of digital records and electronic signatures. Registration available from: https://www.youtube.com/watch?v=Oc4nPoBx8oE&list=PLTfS24aKkJn6GKhVvxJGhI_TTxqKgxXDF&index=7

9 Panel session

/ Note: Due to technical problems, the recording of the Questions and Answers session failed. **/**

10 Conclusions
*Pre*sented by: Bernard BOURDON

Implementation, expectations and interests remain fragmented – Scoping is needed
Participants raised many questions during the Webinar. Questions ranged from requests for more information on the different types of signatures, to the inclusion of digital technologies like AI, AR/VR, digital twin, MBSE.

A recurrent question on the global strategy to follow was addressed. Both AESA and ACG highlighted the complexity of the task. AESA has adopted an agile change management with the progressive extension of its toolbox to simplify information communication and transition process. Digitalisation has indeed many facets and expectations are high but it is important to remain focused.
The scope of the survey and the webinar focussed for the time being on:
- Basic Regulations (EU) 1139/2018 and its implementing rules in Airworthiness, Air Operations, Aircrew, Aerodromes and possibly ATM.
- First objective is to answer the need for a more efficient digital information flow and better administration of aviation business.
- The diversity of questions shows that digitalisation is fragmented with various levels of implementation and EASA is sharing examples on existing materials and examples on how the digitalisation has been implemented.

Electronic documents are replacing paper-based workflows at the NCAs and in the Industry - EASA Regulation is not blocking but guidance is needed

The national digitalisation programmes of AESA and ACG, examples of successful paperless aircraft transition between jurisdictions reported by ALI, the electronic workflows available in AMOS shows that EASA Regulation is not blocking digitalisation. However, it was also stated that it is also not promoting it.

Much is left to the national interpretation of how you provide a digital representation of a paper format. It is due to unclarities and the absence of recommendations for National Competent Authorities (NCAs) on how to interpret rules.

EASA will release guidance material on the global interpretation of EASA and EU Rules. The general guidance will recall the principles and take benefit of the standards, existing literature and practices already in place. This guideline is intended to standardise the approach cross domain. The guidance material should be delivered in Q2 2022. Specific ad-hoc guidelines might come as a complement (e.g. guideline on paperless cockpit to be issued soon).

Standards for electronic information exchange exist

Standards that allow and facilitate electronic document exchanges exist (such as but not limited to Spec 2500 on the exchange of Aircraft records in standardized, electronic (XML) formats, S1000D for schedules maintenance requirements, ATA Spec 2400 on allowable configuration data exchange, ATA Spec 2000 on electronic work package, ATA Spec 42 on digital signatures) but there is no universal agreement on which to apply. ALI highlighted the absence of globally accepted standards for aircraft records and that systems do not communicate. Certain participants still seek wet signatures on final release of approvals.

EASA will raise awareness on existing standards to promote the transfer and acceptance of digital records.

The eIDAS Regulation is applicable in the EU – It ensures cross border acceptance of electronic identifications within the EU. Worldwide assurance level criteria should also extend to non-EU certificates.

The eIDAS Regulation creates a European internal market for electronic trust services – namely electronic signatures, electronic seals, time stamp, electronic delivery service and website authentication – by ensuring that they will work across borders and have the same legal status as traditional paper based processes. The implementation at State level under a National Programme is very powerful as reported by AESA and ACG with the highest assurance levels. AMOS shows that they can cope with external trust service providers but the level of acceptance must be harmonized when working with different countries including non-EU. AMOS and other IT applications can also provide strong verification within closed systems.

EASA and NCA should work with fellow non-EU authorities and bodies to ensure acceptance.

IT systems can manage well all internal approvals and higher probative values for signatures come with complexity – possible alternatives should be explored

Modern IT systems and infrastructure allow users to electronically sign or approve documents. eIDAS is sometime considered bindings while eIDAS does not apply to the provision of trust services that are exclusively used within closed systems.

It was highlighted that some freedom on the trust services is possible within a "to-be-defined" closed system.

Some NCAs / organisations have developed systems to verify online electronic documents issued.

In the presentations, AESA and ACG showed how documents can be verified online. They provide easy verification means that allow the public to check the source and validity of their documents. The AMOS system is also able to provide root certificates for validation.

The Webinar gave examples of Authority or Approved Organisations that manage electronic workflow and ensure trust in their electronic approval. One could credit it for ensuring the trust service on approvals in EU

and beyond. We also see examples where NCA or Organisations offer online verification means for external stakeholders to help the acceptance of their approvals.

11 Closing

*Pre*sented by: *Antonio GONZALEZ*

Antonio GONZALEZ thanked everyone for attending.
The meeting closed at 12:20 hrs on 04 Nov 2021.

List of actions: (Optional)

Item	Action (What)	Person Responsible (Who)	Deadline (When)	Status (Optional)
1	Draft guidance material on the interpretation of EASA and EU Rules	EASA	Ongoing - Deadline Q2 2022	