EUROCAE WG-115 "C-UAS"

Meeting #8 Minutes

Date	**26st – 27th January 2021**
Place	**Webex**
Venue	**Webex**
Hosted by	**EUROCAE**

DAY#1 26th January 2021

1. Welcome and Tour de Table

Jorge Munir El Malek Vázquez [JM] welcomed the participants to the 8th meeting of the Joint Activity EUROCAE WG-115 and RTCA SC-238.

Meeting on Day#1 took place according to the agreed agenda:

1. Plenary Session
    1. Welcome, adoption of Agenda
    2. RTCA and EUROCAE Statements review
    3. Approval of Meeting #7 Minutes
    4. Updates about Joint activity WG115-SC238
    5. Updates from partners
2. OSED Comments resolution
    1. Brief summary of 15th December meeting & Guidelines for this session
    2. Review of Non-Concur (NC) & High priority comments (pending comments & actions)
    3. Review of new/updated sections/chapters/appendix (Section 3.5,Chapter 5,Appendix A)
    4. Review of rest of comments
3. Way ahead on OSED
    1. Check Consensus about final resolution
    2. Approval of last draft
4. AOB
5. Close of Day 1

2. Plenary Session

2.1. Welcome, adoption of Agenda

[JM] presents the agenda of the two days, day#1 objective being mainly the final review of the comment received during the OC and FRAC for the current OSED draft, day#2 agenda addressing the SPR and INTEROP stage, considering a set of presentations covering C-UAS experiences, operations of authorized UAS at airports, e-Identification and Remote ID..
There is no other suggestion or remark about the agenda.

2.2. RTCA and EUROCAE Statements review

Alber Secen [AS] presents the standard announcements regarding the RTCA Anti-Trust policy, Proprietary Policy and the Committee Participation Membership Policy

Sergiu Marzac [SM] presents the standard announcements regarding EUROCAE membership-based status, IPR policy and the Workspace tool available for EUROCAE members.

2.3. Approval of Meeting #7 Minutes

Without any comment, the Meeting #7 Minute is approved.
Documents available **here**.

2.4. Updates about Joint activity WG115-SC238

[JM] confirms the election of Philippe Robin as secretary of the group.

2.5. Updates from partners

[JM] presents the updates from the partners:

- **NATO**
  - Initial Planning Conference (IPC) of a NATO Counter Unmanned Aerial Systems (C-UAS) Technical Interoperability Exercise (TIE) (9th – 10th December 2020)
- **SJU (SESAR Joint Undertaking)**
  - New project focused on C-UAS: ASPRID (AIRPORT SYSTEM PROTECTION FROM INTRUDING DRONES)
- **EASA**
  - Confirmation of citation in the document "Drone Incident Management Manual for aerodromes" about "Limitation and impact of C-UAS Detection technologies", text and table taken from chapter 3 of Draft "Operational Services and Environment Definition for counter-UAS in controlled airspace", EUROCAE ED-286/RTCA DO-389.
- **EUROCONTROL-SESAR-FAA**
  - Participation in the Technical interchange meeting (TIM) on unmanned aerial systems and urban air mobility (13th November 2020)
  - Slides are available **here**.

3. OSED Comments resolution

3.1. Brief summary of 15th December meeting & Guidelines for this session

[JM] summarizes the status of the review at December 15th:
- Most of the Non Concur (NC) and High Priority (HP) comments were accepted but some still need to be reviewed during the present session
- Proposed resolution for Medium Priority have been shared with the WG/SC after the 15th December meeting for their feedback
- Proposed low priority and editorial comments were to be shared in January 2021 with the WG/SC to get their comments
.
[JM] reiterates the objective of the day that is to reach a satisfactory Comment Resolution based on Consensus supporting the final draft OSED

3.2. Review of Non-Concur (NC) & High priority comments (pending comments & actions)

Non-Concur & High priority comments are reviewed.
Consensus is achieved for all them therefore all open items can be closed.

3.3. Review of new/updated sections/chapters/appendix (Section 3.5, Chapter 5, Appendix A)

- **Section 3.5:** Nancy Ford [NF] presents the updated proposal for Section 3.5 addressing the post-incident process cycle.
    o A discussions starts between the participants and a consensus is achieved. The amended text is approved.
    o The final proposal may be found **here**.
    o Note: during the discussion Ryan Wallace [RW] shares an additional document for information ""*FRAMEWORK FOR RESPONDING TO A DRONE INCIDENT*" from Interpol.
- **Chapter 5**
    o The final proposal may be found **here**.
- **Appendix A**
    o Maria Julia Sanchez Pinilla [MS] presents the amended text of the Annex A. Mainly the C-UAS capabilities table (new actors added) and the General C-UAS Framework (incidents incorporated) were modified.
    o A discussions starts between the participants and a consensus is achieved. The amended text is approved.
    o The final proposal may be found **here**.

3.4. Review of rest of comments

JM and RW open the floor for the WG/SC members, asking if someone has inputs/comments/suggestions about the proposed resolutions for the rest of comments (medium priority, low priority and editorial comments). No inputs/comments/suggestions are included. In conclusion, all proposed resolutions by the editorial team are accepted.

The resulting approved resolutions for all the comments can be found **here**.

4. Way ahead on OSED

4.1. Check Consensus about final resolution

[JM] checks then formally the consensus supported by EUROCAE members, the conclusion is consensus has been reached on the whole OSED comment resolution.

4.2. Approval of last draft

Taking into account [RW] and [AS] are not present in this moment of the plenary meeting, At this point, the WG/SC members agree to postpone the formal Approval and specification of the next steps at the beginning of days#2. [JM] will update the agenda for the 2nd Day accordingly.

5. AOB

No other topics are addressed on day #1

DAY#2 27th January 2021

1. Welcome and Tour de Table

Meeting on Day#2 took place according to the agreed agenda with an extra item added at the very beginning in order to formalize the conclusion of day#1

CET Time	EAST Time	Presentation	Presenter(s)
15:00-15:05	9:00-9:05	Welcome and introduction	EUROCAE/RTCA Chairmen
15:05-15:10	9:05-9:10	OSED: Approval of final draft and next steps	EUROCAE/RTCA Chairmen
15:10-15:40	9:10-9:40	From Threat to Opportunity – Integration of Drone Operations at Gatwick Airport (UK)	Paul Diestelkamp (ANSL)
15:40-16:10	9:40-10:10	San Francisco International Airport Experience (US)	Kevin Bumen
16:10-16:40	10:10-10:40	DFW Airport Experience (US)	Jason Byers (DFW Assistant Chief of Police)
16:40-17:10	10:40-11:10	DFS Experience in authorised UAS and C-UAS activities (Germany)	Sibylle Rau (DFS)
17:10-17:15	11:10-11:15	COFFEE	
17:15-17:45	11:15-11:45	Authorized UAS at Airports, ACI Drone ConOps Overview	Eugene Leeman (ACI Europe)
17:45-18:15	11:45-12:15	E-Identification overview	Ludovic Legros (EUROCONTROL)
18:15-18:45	12:15-12:45	Remote ID	Ben Walsh (FAA)
18:45-19:00	12:45-13:00	Final SPR-INTEROP brainstorming & Next steps	WG/SC members
		Close of Day 2	

[JM] summaries the outcome the OSED open items of day #1:

- All Non Concur and High Priority items resolved ([RW] confirms Andrew Thurling [AT agrees with the proposed resolution for both Non Comments)
- All the medium, low and editorial comments were accepted as well
- New updates for Section 3.5, Chapter 5 and Annex A were discussed and approved

- After [SM] got the confirmation from EURAOCE members that there is no objection to the outcome of the OSED Comment Resolution, all resolutions will be integrated in the OSED final-draft . [SM] confirms that EUROCAE will move to formal approval of the document

- On RTCA side after [AS] got the confirmation from RTCA members that there is no objection to the outcome of the OSED Comment Resolution, all resolutions will be integrated in the OSED final draft. [AS] confirms that RTCA will move to formal approval of the document

[JM] then goes through a fast status update about SPR/INTEROP stage:
- Nov 10th technical session covering key objectives , methodology, work plan, etc
- Nov. 17th 7th Plenary meeting: new editorial team created considering 4 subgroups:
  o General Approach
  o Performance
  o Safety
  o Interoperability
- Preliminary contact w/ co leaders and preparation of the Plenary 8th session

The [JM] introduces the following sessions according to the agreed agenda.

2. Presentations

Note: all presentation available on RTCA and EUROCAE workspaces.

Below some of the Questions/Answers considered during the 2nd day of the plenary meeting are listed:

2.1. "Gatwick Airports Experience (UK)". Paul Diestelkamp. (ANS-ATC)

- Q:
  - o A:

San Francisco International Airport Experience (US). Kevin B:
- Q: How the distance of detection has been chosen:
  - o A: 5 mile: seen as a minimum (final approach and departure). 25 miles: no explanation given
- Q: Were you also considering mitigation/neutralization. or just detection?
  - o A: Not yet considered at this stage
- Q: have you considered how you would coordinate players outside the airport?
  - o A:

2.2. "DFW Airport Experience (US)". Jason Byers

- Q: What is the distance from the centre of the airport or airport reference point to the outer most point?
  - o A: about 2 miles radius
- Q: Does the process also notify the aircraft pilots
  - o A: This was the initial intention. Tower notified but notices not necessarily sent out
- Q: Are you considering mitigation? We heard from SFO that they would not want to have any such system installed, what is different in DFW?
  - o A:
- Q: Also, can you refer to what type of mitigation is considered better? kinetic, jamming, take over etc?
  - o A/ No answer

2.3. "DFS Experience in authorised UAS and C-UAS activities (Germany)". Sibylle Rau (DFS)

- Q/: Can you elaborate on the next steps DFS is planning in regards to the procurement process and associated timeline?
  - o A: Result of Drone detection will be communicated through a conference on Jan 28th. However more work are still needed at technical level to provide better detection. Need a detection system by 2025 in major German airport

2.4. "Authorized UAS at Airport, ACI Drone Conops Overview". Eugene Leeman (ACI Europe)

- Q:
  - o A:

2.5. "Key facts & Outcomes about identification (SESAR experinces)". Ludovic Legros (EUROCONTROL)

- Q: Next step / roadmap about E-identification?
  - o A: Deployment is (will be) on going country per country

- Q: Considering that you mentioned that this e-identification is being used to determine the threat level of a potential drone incursion, what have you done to test the cybersecurity of the identification service such as ensuring someone is not maliciously spoofing an authorized identification?
  - o A One other project is addressing these security
- Q: What's the compatibility of effort in individual states?
  - o A: Needs to standardize but SESAR not in position to develop Standards.

2.6. "Remote ID". Ben Walsh (FAA)

- Q: ISO requires remote ID and e-ID has always go together with Authentication as well, for obvious reasons. Is authentication also considered in the FAA's approach
- A: Regulation does not required Authentication. NO requirements wrt network security. (device required to be tamper resistant). Unique Identifier is the only information unique to UA.

3. Next steps

Finally, as last point in the agenda [JM] and [RW] share the Leadership Team's proposal for the next steps considering:

- OSED final draft: Make amendments to the OSED according to approved resolutions.
- SPR-INTEROP preparation meeting with leadership team and co-leaders
- SPR-INTEROP ad-hoc session (To be arranged soon)
- 9th Plenary Meeting (To Be Confirmed – Candidate date: 2nd March 2021)

Additionally, extra actions are identified:

- Call for new co leader in INTEROP subgroup: Randy Williams has stepped down given new responsibilities in his career.
- Those WG/SC members who did not provide their primary preference for the new subgroups, please, are required to share it with Leadership Team asap.

ATTACHMENT A

WG-115 and SC-238 Meeting 8 Attendance Day 1

Organisation	First Name	Last Name	E-mail
AcceleratedUM	Brett	Feddersen	bfeddersen@acceleratUM.com
ALPA	Mark	Reed	mark.reed@alpa.org
ANS-ATC	Paul	Diestelkamp	paul.diestelkamp@ans-atc.com
AOPA	Christopher	Cooper	christopher.cooper@aopa.org
AXENTERPRIZE	Stuart	W. Card	stu.card@axenterprize.com
CS GROUP	Philippe	Robin	philippe.robin@c-s.fr
Embry-Riddle Aeronautical University	Ryan	Wallace	ryan.wallace@erau.edu
ENAV	Giovanni	Riccardi	giovanni.riccardi.1@enav.it
ENRI	Akiko	Kohmura	kohmura.enri.go.jp@gmail.com
EASA	Thomas	OSTER	thomas.oster@easa.europa.eu
EUROCAE	Sergiu	Marzac	sergiu.marzac@eurocae.net
EUROCONTROL	Maria Julia	Sanchez Pinilla	julia.sanchez@eurocontrol.int
FAA	Chad	Kirk	chad.kirk@faa.gov
FAA	Markus	Wolf	markus.wolf@hensoldt.net
FAA	Mohan	Gupta	mohan.l.gupta@faa.gov
FREQUENTIS	Markus	Heichel	markus.heichel@frequentis.com
HENSOLDT	Bernd	Burger	bernd.burger@hensoldt.net
HIDDENLEVEL	Kevin	Nasman	kevin.nasman@hiddenlevel.com
Honeywell	Chris	Haraway	Chris.Haraway@Honeywell.com
IFATCA	Eugenio	Diotalevi	eugenio.diotalevi@ifatca.org
INDRA	Jorge Munir	El Malek Vázquez	
NAVCANADA	Sumit	Saha	sumit.saha@navcanada.ca
NLR	Assaf	Monsa	assaf@d-fendsolutions.com
NLR	Gerald	Poppinga	Gerald.Poppinga@nlr.nl
Nordic Radar Solution	Morten Novak	Bro	mnb@nordicradarsolutions.com
NUAIR	David	Whitaker	dwhitaker@nuair.org
Regulus	Jana	Wagner	jana@regulus.com
RETIA	Pavel	Sedivy	psedivy@retia.cz
RTCA	Al	Secen	asecen@rtca.org
Security101	Nancy	Ford	nford@security101.com
UND	paul	Snyder	paul.snyder@und.edu
Unmanned Systems Bulgaria	Stefan	Hristozov	
White For Defense	Luke	Fox	luke.fox@whitefoxdefense.com

WG-115 and SC-238 Meeting 8 Attendance Day 2

Organisation	First Name	Last Name	E-mail
ALPA	Mark	Reed	mark.reed@alpa.org
AIRBUS	Dirk	Schindler	dirk.schindler@airbus.com
ANS-ATC	Paul	Diestelkamp	paul.diestelkamp@ans-atc.com
AXENTERPRIZE	Stuart	W. Card	stu.card@axenterprize.com
BATTLEROADADVISORS	Tom	Gramaglia	tomgramaglia@battleroadadvisors.com
Studenti-unima	Pasquale J.	Capasso	pasqualej.capasso@studenti.unina.it
CS GROUP	Philippe	Robin	philippe.robin@c-s.fr
DFS	Sybille	Rau	Sibylle.rau@dfs.de
DF Wayrport	Jason	Byers	jbyers@dfwairport.com
Embry-Riddle Aeronautical University	Ryan	Wallace	ryan.wallace@erau.edu
EASA	Thomas	Oster	thomas.oster@easa.europa.eu
EUROCAE	Sergiu	Marzac	sergiu.marzac@eurocae.net
EUROCONTROL	Cengiz	Ari	cengiz.ari@sesarju.eu
EUROCONTROL	Ludovic	Legros	ludovic.legros@sesarju.eu
EUROCONTROL	EEugene	Leeman	eugene.leeman.ext@eurocontrol.int
EUROCONTROL	Maria Julia	Sanchez Pinilla	julia.sanchez@eurocontrol.int
FAA	Ben	Walsh	Ben.walsh@faa.gov
FAA	Chad	Kirk	chad.kirk@faa.gov
Hensoldt	Markus	Wolf	markus.wolf@hensoldt.net
FAA	Tal	Haley	talwyn.haley@faa.gov
FLYSFO	Kevin	Bumen	kevin.bumen@flysfo.com
FREQUENTIS	Markus	Heichel	markus.heichel@frequentis.com
HENSOLDT	Bernd	Burger	bernd.burger@hensoldt.net
HIDDENLEVEL	Kevin	Nasman	kevin.nasman@hiddenlevel.com
IFATCA	Eugenio	Diotalevi	eugenio.diotalevi@ifatca.org
INDRA	Jorge Munir	El Malek Vázquez	
ITACAVA	Juan V.	Balbastre	jbalbast@itaca.upv.es
KN	Nakatsubo	Katsuyuki	nakatsubo.katsuyuki@jransa.or.jp
NAVIAIR	Jens	Skinneholm	jcs@naviair.dk
NAVCANADA	Sumit	Saha	sumit.saha@navcanada.ca
NLR	Assaf	Monsa	assaf@d-fendsolutions.com
NLR	Gerald	Poppinga	Gerald.Poppinga@nlr.nl
NLR	Itai	Bar-Guil	itaibg@d-fendsolutions.com
Nordic Radar Solution	Morten Novak	Bro	mnb@nordicradarsolutions.com
NUAIR	Andy	Thurling	AThurling@NUAIR.org

NUAIR	David	Whitaker	dwhitaker@nuair.org
Regulus	Jana	Wagner	jana@regulus.com
RETIA	Pavel	Sedivy	psedivy@retia.cz
Rohde-Scwarz	Mayser	Goetz	goetz.mayser@rohde-schwarz.com
RTCA	Al	Secen	asecen@rtca.org
Security101	Nancy	Ford	nford@security101.com
Erau	Houbing	Song	songh4@erau.edu
UND	paul	Snyder	paul.snyder@und.edu
White For Defense	Luke	Fox	luke.fox@whitefoxdefense.com
	Akiko	Kohmura	kohmura.enri.go.jp@gmail.com

ATTACHMENT B

Action items

Number	Action	Responsible	Due By	Status
1	Correct errors detected in the OSED draft and provide new version	*Lead Team*	1st week March	Version V0.1 available. Closed
2	Define multiple key terms to get clarity and alignment (terms such as collaborative and non-collaborative drones, threat, detection, identification,)	*Lead Team and Contributors*	5th Meeting	Closed. Proposal shared 20200605. See action #14
3	Review and provide clarifications about SPR comments	*Lead Team*	3rd meeting	"update after meeting" included in meeting #2 minutes. Closed
4	Evaluate feedback about focusing on specific drone categories	*Lead Team*	3rd meeting	"update after meeting" included in meeting #2 minutes. Closed
5	Share with the lead team the IATA document	*Manfred Mohr*	February 2020	Document available on workspace. Closed
6	Create list of out-of-scope topics and check with EUROCAE team what alternative groups, subgroups or forums	*Lead Team, EUROCAE team*	3rd meeting	"update after meeting" included in meeting #2 minutes. Closed
7	Evaluate the suggestion about including Legal Framework section in the OSED scope	*Lead Team*	3rd meeting	Chapter included in TOC. Closed
8	Check that the ConOps from ACI EU is aligned and coordinated with ACI North America and/or ACI World.	*Lead Team*	4th meeting	Closed
9	RTCA to look for applicable documents to support the OSED and verify that there is no impediment to share them with WG participants.	*Al Secen*	4th meeting	Document provided. Closed
10	Check chapter 6 to differentiate between requirements and assumptions, and to avoid providing too technical inputs	*Lead Team*	5th Meeting	Closed. Finally, no chapter 6. Requirements were include in the chapter 2-5.
11	Integrate last inputs received before meeting #3 and share new document	*Lead Team and Contributors*	23rd March week	Inputs integrated in version provided before plenary. Closed
12	Share the outcome of the legal framework study (deliverable) performed in the ALADDIN project	*Patrick Garnier*	16th March week	**Done** (Uploaded to the workspace)
13	Provide inputs on the draft OSED version *"WG115-SC238 CUAS OSED – 20200425"* by 8th May	*All*	8th May	Closed

14	Comments and inputs about the "Terms and Definitions" proposal	*All*	16th June	Closed
15	Review and provide inputs about the OSED Draft 20200605	*All*	16th June	Closed
16	Polling about 7th Plenary Meeting	*Lead Team*	18th June	Closed. 39th week has been the most voted
17	Creating first draft of chapter 6	*Lead Team and Garik Markarian*	24th June	Closed
18	Analyse and achieve a common understanding about SPR/INTEROP	*All*	February/March 2021	Open. Once the SPR editorial team (editor / co-leaders) is completed
19	Arrange focus session for chapters 3 and 4	*Chapter leader*	Next days after meeting #5	Closed
20	Call for potential contributors or editor(s) for the SPR or INTEROP	*All*	December	Closed
21	Update OSED chapters and share them with AV, including the agreed resolutions during the 6th plenary meeting.	*Lead Team and Chapter Leaders*	28th September	Closed
22	Update the full OSED draft based on new chapter drafts	*AV*	30th September	Closed
23	New OSED draft enters OC/FRAC	*EUROCAE/RTCA TPM*	16th November	Closed after deadline for providing comments.
24	Contact with other EUROCAE WGs and RTCA SCs whose members can be interested in the new task the Group is starting	*Lead Team*	9nd October	Closed via Call for Participation launched by EUROCAE and RTCA
25	Specify final dates for 7th Plenary Meeting	*Lead Team*	9th October	Closed. 17th November 2020
26	Upload final version meeting minutes #6 and slides of plenary meeting	*Lead Team*	20th November	Closed. In SPR/INTEROP stage, Editor will be in charge of this type of action
27	Specify final date for the Comment Resolution Meeting	*Lead Team*	November	Closed
28	Prepare agenda of the SPR/INTEROP focus session, including identification and invitation of guests	*Lead Team*	1st week December	Closed
29	Specify final date for the SPR/INTEROP focus session	*Lead Team*	November	Closed
30	Contact with co-leaders in order to organize 1st steps of each editorial team	*Lead Team*	November	Closed

31	Specify final date for the next plenary meeting	*Lead Team*	November	Closed
32	Identify and close vacancy of SC-238 Secretary	*Lead Team/RTCA*	December	Closed
33	Upload the presentations to the EUROCAE/RTCA workspaces	*Lead Team*	January 2021	Closed
34	Specify final date for the next plenary meeting	*Lead Team*	1st week February 2021	Open
35	Identify new co-leader for INTEROP sub-group as replacement for Randy Williams. Open Call	*WG/SC members*	February 2021	Open
36	Specify primary preference for the new SPR-INTEROP subgroups.	*WG/SC members*	February 2021	Open
37	Prepare OSED final draft based on the approved comment resolutions during 8th plenary meeting	*OSED Editorial Team*	February 2021	Open
38	Management of approval of the OSED final draft	*Lead Team and TPM*	February 2021	Open