EASA.2021.HVP.30 HORIZON EUROPE PROJECT

D-3.8 – WORKSHOP CONCLUSION

IMPLEMENTATION OF THE AERODROME 'TRIPLE ONE' CONCEPT

Final report
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0.9	1/5/2024	Triple One Study – D-3.8 Workshop concclusions	J.Walther	R.Flicker
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This report consists of:

5 pages.

Approval granted

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Part I   Introduction

The present document serves as a conclusion report to the study online webinar held on December 13th, 2023, from 10 am to 1 pm CET. The shown presentation is supplementary to this report as a reference. The main objectives of the workshop were the presentation of preliminary study results regarding the "Triple One" concept and an exchange among EASA stakeholders. This document aims to give insight into the participation, poll results as well as how the drawn conclusions affect further studies.

Part II   Participation

A total of 228 individuals registered for the webinar out of which 191 participants attended the webinar. They were categorized according to the type of organization they were representing:

- 102 representatives of aerodromes,

- 50 representatives of CAAs,

- 15 representatives of ANSPs and

- 24 representatives of other types of organizations.

Individuals from 26 countries were present. The following diagram gives insight into the geographical distribution of participants:
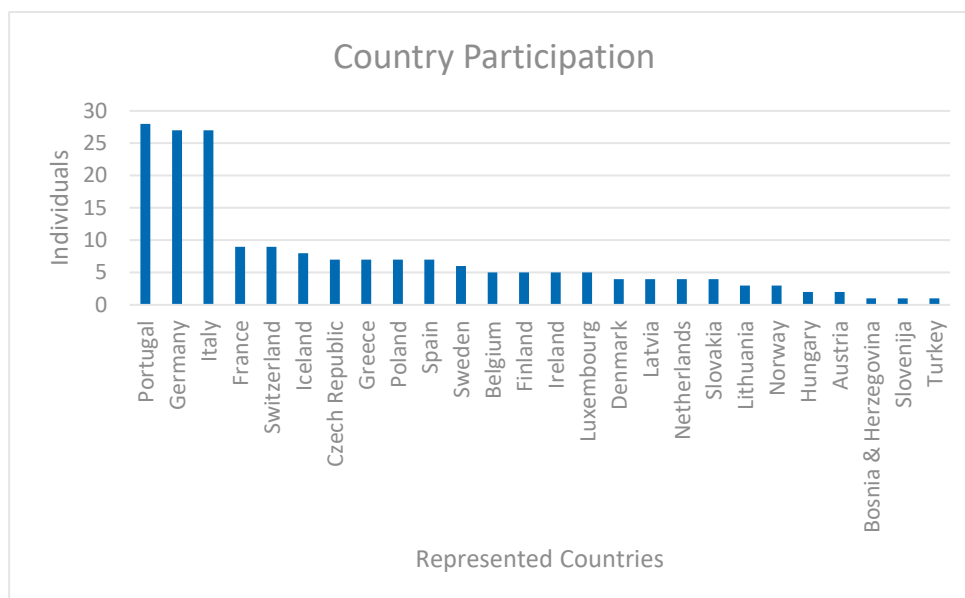
It is noteworthy that the numbers above only refer to individual registrations. Multiple individuals may have shared one registration and attended the webinar together as/behind one participant. It is also worth mentioning that some of the countries lie outside of the EASA scope.

Part III   Polls

Multiple interactive polls were conducted during the webinar. This exchange allowed for a better understanding of the judgment of stakeholders regarding runway incursions, the proposed concept and related incidents. The following gives an overview of the polls and the responses:

1. Question: What is an "incorrect presence" in case of a runway incursion? (137 responses)

    a. "The failure of a pilot or vehicle driver to comply with a valid ATC clearance." – 14.6 % (20)

    b. "The compliance of a pilot or vehicle driver with an incorrect ATC clearance." – 0.7 % (1)

    c. "Both." – 84.7 % (116)

2. Question (refers to the runway incursion in Porto on April 27th, 2021, on slide 14): Is Triple One a safety barrier that would have prevented the runway incursion from occurring or would Triple One have reduced the severity of the runway incursion outcome (corrective)? (132 responses)

    a. "Preventive Barrier" – 31.8% (42)

    b. "Corrective Barrier" – 9.8 % (13)

    c. "Both" – 50.0 % (66)

    d. "None of the above" – 8.3 % (11)

3. Question (refers to the incident on slide 15[1]): Is Triple One a safety barrier that would have prevented the runway incursion from occurring or would Triple One have reduced the severity of the runway incursion outcome (corrective)? (116 responses)

    a. "Preventive Barrier" – 19.0 % (22)

    b. "Corrective Barrier" – 12.1 % (14)

    c. "Both" – 15.5 % (18)

    d. "None of the above" – 53.4% (62)

4. Question: What is your experience in using ECCAIRS? (More than one selection possible) (128 responses)

    a. "I submitted a report." – 25.0 % (32)

    b. "I edited/forwarded/processed a report." – 17.2 % (22)

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[1] The shown incident is fictional based on the shown layout of Chicago O'Hare Airport and inspired by an incident that occurred in WAW in 2014.

     c. "I watched a colleague submitting/editing a report." – 21.9 % (28)

     d. "I was trained how to submit a report." – 18.8 % (24)

     e. "I evaluated ECCAIRS data." – 20.3 % (26)

     f. "No experience." – 46.9 % (60)

5. Question: Did you evaluate the implementation of a common frequency and Englisch for vehicles on active runways (e.g., through a safety assessment)? (99 responses)

     a. "Yes, but not in detail." – 22.2% (22)

     b. "Yes, e.g., through a safety assessment." – 17.2% (17)

     c. "No." – 28.3 % (28)

     d. "No, but we are planning to evaluate it." – 32.3 % (32)

6. Question: What is the minimum language proficiency required to ensure adequate situational awareness on runway operations (provided it is a common frequency)? (122 responses)

     a. "National language with phraseology" – 13.9 % (17)

     b. "Just English" – 1.6 % (2)

     c. "Functional English with basic phraseology" – 24.6 % (30)

     d. "Aviation English with phraseology (ICAO)" – 39.3 % (48)

     e. "English operational level 4" – 20.5 % (25)

Part IV   Conclusions

IV.1   General

Considering the high number of registrations and participation, it can be concluded that there is still a high level of interest in the aviation industry on the subject and in the results of the study.

IV.2   Triple One as a preventive or corrective safety barrier

In the webinar one thesis was formulated:

"Triple One can act as a preventive barrier or a corrective barrier, however, for certain runway incursions it does not have a perceived safety benefit."

The participants were asked, what role the implementation of Triple One would have played in the two exemplary runway incursions presented.

In summary, a vast majority of 92% stated, that Triple One would have served as a safety barrier for the first shown exemplary runway incursion (Porto on April 27th, 2021, slide 14).

In the second case (incident on slide 15[2]), only little more than the half of the participants voted that Triple One would not have prevented the runway incursion. Of course, it must be noted that these answers were given on the few facts which were presented during the webinar and not based on an investigation report. However, it shows that a considerable number of experts in the aviation industry are of the opinion that this type of scenario cannot be prevented or corrected by the implementation of Triple One.

The further evaluation of the benefits of Triple One must take into account the relevance of the "Triple One" concept regarding certain scenarios. The magnitude of the safety issue of runway incursions - and in particular runway incursions by vehicles - is known based on the occurrence data analysis. This also applies to the role of relevant factors like communication. However, it can be assumed that a common frequency and a common language would not have prevented or corrected all of these occurrences.

IV.3　　　　Use of ECCAIRS

During the work on the study, in particular on Task 2, it became obvious that the evaluation of data stored in the ECCAIRS system only allows the derivation of conclusions in a limited extent. The main reasons can be attributed to the lack of quality of the information which might be associated with the proficiency of the data and information input.

In the poll #4 the participants were asked about their level of experience regarding the reporting and evaluation of ECCAIRS data. Even though it cannot be verified which participants are in a position where they must use ECCAIRS, it can be assumed that a high number of representatives of aerodromes, ANSPs and CAAs should have such an experience. 46.9 % of the participants indicated that they have no experience with ECCAIRS at all.

An interesting result is that 25.0% indicated to have submitted a report, but only 18.8 % responded that they have been trained to do so.

If ECCAIRS data should be of a valuable use to support the understanding of safety issues like runway incursions by vehicle and the benefit of certain mitigation measures or actions, a significant improvement of the data quality is required. One of the relevant aspects is certainly the level of training or qualification of personnel entering and using/processing reports.

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[2] The shown incident is fictional based on the shown layout of Chicago O'Hare Airport and inspired by an incident that occurred in WAW in 2014.

IV.4   Evaluation of a common frequency and Englisch for vehicles

The poll (#5) showed that 39.4 % of the participants evaluated the implementation of a common frequency and the use of English for vehicles on active runways, but only 17.2 % did a more detailed (safety) assessment for their airport(s). On the one side it can be pointed out that there are already airports which made detailed assessments on this subject to understand their own benefits and risk. On the other side, more than half of all responses indicated that there have not made any considerations regarding these core elements of Triple One. This implies that these airports are, at current stage, not yet prepared for a decision on whether or not the implementation of Triple One or any variant would be beneficial.

It is noteworthy that 32.3 % of the participants indicated that they intend to evaluate the implementation of a common frequency on English also for vehicles.

IV.4.1   Adequate minimum language proficiency

On slide 35, different options for the definition of a minimum level of language proficiency for vehicle drivers on runways was presented and discussed. There participants were asked to give their opinion on which language proficiency level is deemed adequate.

20.5 % responded that Operational Level 4 (acc. to ICAO) is adequate, which is the same requirement as currently foreseen by EASA regulations (ADR.OPS.B.029).

39.3 % and 24.6 % respectively voted for Aviation English with Phraseology and Functional English with basic phraseology which can be considered as less comprehensive as Operational Level 4.

13.9 % voted for phraseology in the national language (meaning not implementing Triple One).

It can be seen that a majority voted for English as a common language, applying a phraseology, however there is no clear consensus as to what level is adequate to fulfil the objective of Triple One.

This result shows the controversial opinion in the aviation community and that there is no clear preference for the implementation of Operational Level 4 English language proficiency regarding the vehicle drivers at aerodromes.