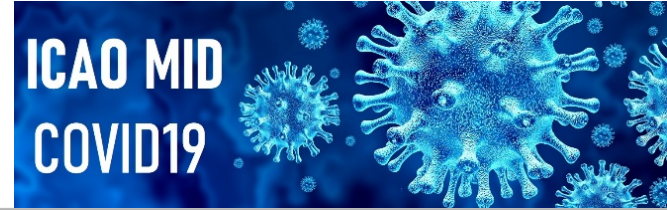




Agenda Item 4

Outcome of the Flight Inspection Webinar

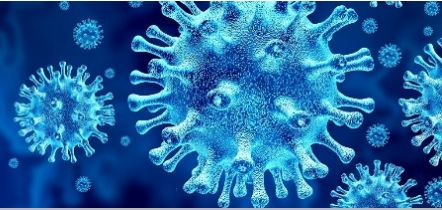




Work Programme

- Overview of relevant ICAO provisions
- Update on ICAO doc 8071 Vol I, II
- Update on ICAO doc 9906
- ICAO QRG (Quick Reference Guidance) on the periodicity of NAV AID flight inspection
- States experience on Navigation aids flight inspection (Iran, Jordan, Oman and France).

- The webinar was jointly organized between ICAO MID, ICAO EUR/NAT and ACAO.
- 628 participants registered



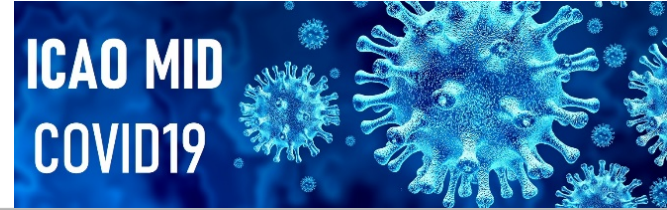
Summary of discussion

- The webinar was apprised of ICAO provisions related to Navigation aids flight inspection. The related USOAP CMA Protocol Questions were presented.
- The distinction between ICAO Doc 9906 Vol 5 and doc 8071 (flight inspection and flight validation) was highlighted.
- It was underlined that ICAO DOC 8071 is a guidance material to ensure continued compliance to Annex 10 during the operational service time, and should not be used for design assurance testing. So passing a flight check does not mean that the facility is inherently safe. If it has been proven to be safe by design, installed in an operational environment and regularly checked, it continue to be safe. (manufacture must demonstrate compliance with Annex 10)



Summary of discussion

- The webinar noted that the new version of Vol I include new text on the use of RPAS/ UAS for flight inspection.
- The webinar was informed that the goal of 8071 VOL I update was to ensure realignment with Annex 10 Vol. I updates and to resolve or at least improve long-standing issues of some debate in the flight inspection community.
- It was noted that the ICAO doc 8071 Vol II update include new material related to GBAS, ABAS and evolving testing toward engineering data analysis. New chapter on GNSS RFI measurement was added as well.
- The webinar was apprised of the Mitigation GNSS RFI Mitigation Plan published in ICAO Doc 9849, GNSS Manual and the RASG-MID RSA on GNSS vulnerabilities.



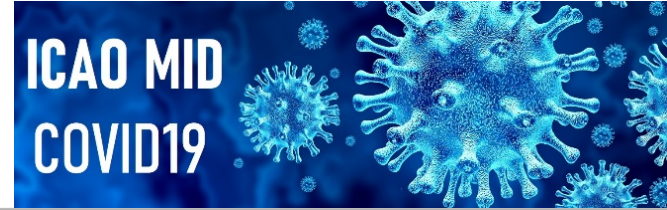
Summary of discussion

- The webinar noted that Efficient Aviation Operations nowadays are enabled by GNSS (PBN, ADS-B). It was highlighted that Inertia, DME/DME and ILS are the main alternative.
- It was noted that the most significant GNSS Operational issue today is RFI. Future aviation GNSS receivers may detect and downlink RFI information.
- The webinar noted that ICAO Doc 9906 Vol 5 is being updated. The update aims to permit cross-validation of flight procedure validation with proposer training and competence, and to be explain of the operational aspects (Flight validation aircraft, certification requirements, etc.).



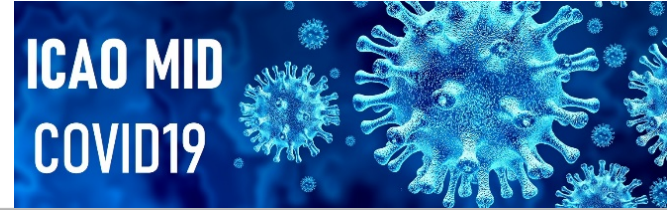
Summary of discussion

- The webinar noted the content of the ICAO Quick Reference Guide (QRG) related to the Periodicity of flight inspection of Radio NAV AIDs
- The webinar was apprised of the need to follow engineering evaluation taking into account several factors to make decision on granting extension of the flight inspection periodicity interval beyond the nominal periods. The webinar noted possible mitigation action that can be implemented.
- It was noted that a precise and cost-effective method developed in France based on a small off-the-shelf customer drone used for PAPI inspection. The use of drones for VOR and ILS flight inspection is still under development.



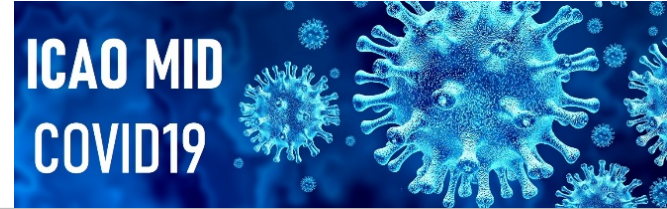
Summary of discussion

- The webinar received presentation from Jordan on the analysis study conducted to determine the criteria to extend the nominal interval between flight inspections of selected facilities considering the safety aspects of the interruption.
- The meeting was apprised of the risk management methodology (Risk probability and severity, hazards identification and risk assessment) that was implemented by Jordan to make decision of periodicity interval extension. A course of actions have been developed and implemented during the extension period to ensure the stability of the navigation aids systems.
- The webinar was apprised of Oman experience in periodicity extension of the flight inspection from the regulatory and service provider perspectives.



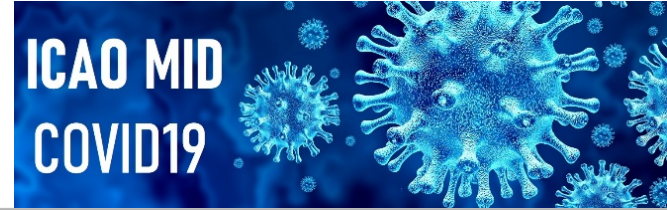
Summary of discussion

- Oman presented challenges faced and benefits occurred related to flight inspection during the Pandemic.
- The webinar noted that Oman had developed procedure for determining and changing the test/inspection interval before the pandemic, which allow the service provider to get the extension approval following systematic approach and in a timely manner.
- The webinar was apprised of the method and criteria used by Iran as conduct Navigation Aids reliability assessment.
- It was noted that Iran CAO granted exemption from national regulation (CAD4410) and extended the periodicity interval up to 100% of the nominal values.



Action by the meeting

The meeting is invited to note the outcome of the Flight inspection webinar and urge States to actively participate in the Flight inspection and procedure validation symposium, planned to be held in Doha, Qatar, 12-14 October 2021.



References

Webinar Presentations and recording are online.

<https://www.icao.int/Meetings/webinar-series/Pages/NAV-AIDs-Flight-Inspection-and-Procedure-Validation.aspx>

