FAA
Air Traffic Organization

Surveillance/Space Based ADS-B with HF Communications Minima

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ASEPS and PBCS Minima

- Reduced oceanic minima utilize RCP240 Communications.
- RCP 240 communications are subject to periodic outages
  - HF Comm is the most frequent backup communication method.
  - Controllers must revert to much larger separation minima
  - SBA and HF are usually still available during RCP240 outages.

SurvHF Separation Minima TIM

- ICAO developed the separation minima “ATS surveillance systems where VHF voice communications is not available.”
  - More commonly know as ASEPS
  - ASEPS CRM and RCP240 TIM
- An HF Timing and Intervention Model (TIM) was developed which reflected HF communications performance.
- Many ISPACG and IPACG ANSPs provided data on their HF clearance communication performance to support development of the HF TIM model used in the SurvHF CRM.
- We would like to thank everyone who supported this effort.

Potential SurvHF Separation Minima

- These numbers below are based on SASP Math Sub Group CRM discussions on a Surveillance with HF Comm. minima
- This CRM work was based on ANSP HF performance.

  - 23 NM Lateral
  - 17NM Longitudinal

SASP SurvHF Job Card

- ICAO SASP submitted a Job Card to the ANC for approval to work on a SurvHF minima.
- The ANC did not approve the Job Card.
- ICAO noted that there are enabling provisions n the PANS-ATM and Annex 11 which allow ANSPs to determine contingency separations.
  - Those references are provided in the Information Paper.

FAA and SB ADS-B

- The FAA has determined that after careful consideration, not to recommend moving forward with the currently available SBA implementation at this time due to:
- The high costs for the marginal benefits provided for use in U.S.-managed ICAO airspace.
- Current SBA capability limitations.

Potential SurvHF Separation Minima

- The FAA considers that SBA HF minima would be very useful as global safety/ separation tools that could serve as an efficient backup to the separation minima with RCP 240 requirements when occasional network outages occur.
- The Surveillance with HF communications minima Collision Risk Modelling is very mature and ready to be progressed.

Potential SurvHF Separation Minima

- Recognizing the rapid development of new business models and systems, the FAA intends to conduct industry engagement to identify future potential options for cost-efficient and technologically acceptable SBA deployment in the future.
- Should a cost-effective source of SB ADS-B that meets our operational needs become available, the FAA would like to continue their work on these SurvHF contingency separation minima to develop regional procedures, which would allow the Surveillance with HF communications minima to be used across FIR boundaries utilizing the same procedural requirements.

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