



AIDC TASK FORCE
Minutes of Teleconference/17
(November 23, 2017 1800 UTC)

References:

- 1 AIM/FPL/AIDC/1/P02 – Benefits of AIDC Implementation

Statement of purpose:

- 1 Establishment of AIDC performance metrics for the NAM/CAR region
- 2 Other matters.

Participants:

1. State: Member
2. Dominican Republic: Julio César Mejía, Fernando Casso (rapporteur)
3. Mexico: Daniel Castañeda
4. State: Member
5. ICAO: Mayda Ávila

Discussions:

Establishment of AIDC performance metrics for the NAM/CAR region

1. The rapporteur recalled the discussion of performance metrics for AIDC implementation that took place during the past face to face meeting in Honduras. Due to time constraints the discussion was not concluded, and was agreed to continue during this teleconference.
2. The logic behind the analysis and establishment of performance metrics was based on the expected benefits of AIDC implementation, as specified in the GANP and as was presented during the meeting under presentation P02. Knowing the expected benefits, goals and metrics could be placed on any or all of these benefits, thus reflecting if AIDC implementation is yielding the results expected. A table with the expected benefits was presented during the meeting for this discussion, which can be found in Appendix A.
3. The benefit of reduced controller workload had been discussed during the meeting. United States commented that there was a reduction of about 50% in controller workload with the implementation of AIDC between Miami and Cuba. United States was asked to provide the means of calculating this reduction, as an idea of how it could be done regionally. IATA commented that the ATFM task force is working on a metric of controller workload, so it would be a good idea to wait for the results of this task and thus use the same metric in all circumstances. This was agreed to, although it remained of interest to see the different ways it has been calculated, so as to maybe contribute to the work of the ATFM task force. (ACT 01/17)
4. During the teleconference, Mexico also offered data regarding the reduction of controller workload. This would be possible requesting this information to SENEAM via the CAA. The rapporteur agreed to send this request to SENEAM of the information available regarding the reduction of controller workload resulting from the implementation of AIDC. (ACT 02/17)
5. The next metric discussed was that of reduction of separation at border crossings. This was also discussed during the face to face meeting, in which IATA proposed that a final goal of 5NM be established. In the teleconference the rapporteur considered that the reduction of separation depends on several variables, which would make determining the role of AIDC more difficult to isolate. Dominican Republic commented that for a separation of 5NM to be achieved, it would be necessary that all FIRs have sufficient radar coverage, as an example. It was a target not impossible to reach, but much more later in time. It would be more useful to establish a more reachable goal first, and suggested 20NM as a first goal, in the light of the current separations, which in cases are still at 80NM. This would independent of the capacity of the adjacent FIRs in terms of surveillance. The rapporteur pointed out that in the end the ideal would be that the same separations possible for domestic flight be applicable to flights crossing FIRs. Dominican Republic



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agreed that AIDC pursues enabling the same agility of intersector coordination to FIR to FIR coordination. ICAO added that the SAM region is currently looking into establishing a regional separation of 10 NM, where there are still FIRs that are applying 80NM, and also recalled the statement from IATA during the face to face meeting of the desire that the same separation be used from departure all the way till arrival. ICAO considered that as a region NAM/CAR agree that on implementation of AIDC, separations be established at 20NM as a reasonable goal. States that implement AIDC should do the risk analysis necessary to reduce the minimum separation to 20NM after AIDC is operational.

6. Dominican Republic commented that the separations have always been specified in ICAO documents, as also the conditions and requirements to comply with for each level of separation. The goal and effort should be that States acquire these capabilities to guarantee a uniform separation all through the region, and select a target separation which States can adhere to with a given minimum of compliance.
7. The rapporteur indicated that there are two factors in this issue: the target separation desired on the one hand and how to measure this benefit on the other. The latter would be along the lines of the absolute or percent of difference between the separations before and after AIDC implementation. How did separation change after AIDC implementation? How could a business case be established in which the benefit of reduced separation can be quantified? Dominican Republic answered that traffic flow would be a good measurement of this impact, as reduced separations allow more flights to cross borders within a given time frame. In this case instead of measuring the reduction in separation, the difference in flow of cross-border traffic could be measured, as change in operations per hour.
8. Reduction in coordination errors is also a very good metric to use, which will reflect the integrity of the data, as also the reduced risk of coordination errors, two of the expected benefits of AIDC implementation. Dominican Republic pointed out that the reduction in controller workload will be compensated by the increase in traffic flow, so in the end the controller workload will remain the same.
9. The ICAO CNS officer suggested also a metric measuring the use of the AIDC interface as a base for weighing the rest of the metrics. This would be expressed as the number of operations coordinated by the AIDC interface divided by the total number of operations coordinated. This would allow a State to know how much use the interface is being subject to, and that will put into perspective the numbers yielded by the rest of the metrics discussed. This was accepted by the meeting.
10. The meeting considered that the metrics discussed till now are a good starting point, so as not to deal with many metrics in the beginning. The summary of the metrics and the formula for calculation are presented in Appendix B.
11. ICAO suggested the group recommend the use of these metrics as implementation is done, starting with the metric of interface use, which will begin with a lower percentage and will grow with time. Another recommendation was that States record the type of errors encountered during the implementation, testing and operation of AIDC, so as to have statistics that can be of help to other States.
12. ICAO asked Mexico if there are plans on implementing phase 2 of NAM ICD with United States or Cuba. Mexico answered that there are no plans for this year or the next. Very probably this will be discussed with the construction of the new airport in Mexico City.
13. The rapporteur pointed out the importance of using these metrics before implementation, in the case of those States that have not implemented AIDC yet, to have a base of comparison for the performance after AIDC implementation. ICAO stated the importance of taking into account other factors that may impact the performance being measured, as not only AIDC implementation may influence the changes.

Other Matters



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14. The rapporteur reviewed the draft of the final report of the face to face meeting. The relevant topics were reviewed, the regional implementation plan was viewed on screen, with no additional comments. Mexico reviewed the State of their interfaces, and confirmation of this status was pending with SENEAM.

Review of Previous Action Items

ACT No.	Description	Status	Comments

Summary of Action Items from this Meeting

ACT No.	Description	Status	Comments
01/17	United States to send the calculation of the reduction in 50% of controller workload with the implementation of AIDC interface between Miami and Cuba	Valid	Due 01/01/2018
02/17	Rapporteur to send a request to SENEAM for information regarding the reduction in controller workload with the implementation of AIDC.	Valid	Due 08/12/2018
03/17	Task force to recommend the use of the metrics agreed to in this teleconference by the NAM/CAR states in the implementation of AIDC to measure performance	Valid	Due 01/01/2018

Next meeting: TBD



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APPENDIX A
AIDC PERFORMANCE METRIC TABLE

Expected Benefit	Performance metric	Calculation
Reduced Controller Workload		
Increased data integrity		
Reduced separations		
Xsector / boundary capacity flow increase		
More frequent offering of flight levels closer to the flight optimum		
Reduced en-route holdings		
Reduced cost of development		
Application of same procedures at boundaries		
More transparent border crossings for flights		
Better knowledge of more accurate flight plan information		
Reduced risk of coordination errors		



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APPENDIX B
INITIAL AIDC PERFORMANCE METRICS

Expected Benefit	Performance metric	Calculation
Increased data integrity	Percent difference in coordination error rate	Coordination error rate = number of coordination errors at boundary X per hour/number of operations per hour at boundary X
Xsector / boundary capacity flow increase	Difference in traffic flow at boundary	Traffic flow at boundary X = Number of operations per hour at boundary X
Reduced risk of coordination errors	Percent difference in coordination error rate	Coordination error rate = number of coordination errors at boundary X per hour/number of operations per hour at boundary X
AIDC interface use percentage		Number of operations coordinated with AIDC at boundary X per hour / number of operations coordinated at boundary X