



TWELFTH AIR NAVIGATION CONFERENCE

Montréal, 19 to 30 November 2012

Agenda Item 2: Aerodrome operations – improving airport performance

2.1: Airport capacity

AVIATION AIRSIDE CAPACITY ENHANCEMENT THROUGH COLLABORATION AND COOPERATION IN SOUTH AFRICA

(Presented by South Africa)

SUMMARY

South Africa has, through its Agencies, Airports Company South Africa (ACSA) and the Air Traffic and Navigation Services Company (ATNS), conducted airside capacity studies pertaining to Cape Town, O.R. Tambo and King Shaka International Airports so as to improve aviation operational efficiency by collaborating with different stakeholders in determining intermediate capacity milestones which will provide agreed to increases in determined capacities. An initial stakeholder's workshop was convened by ACSA on the 21 June 2012.

This Information Paper discusses the process of implementing such collaboration and cooperation in South Africa between different stakeholders and is in support of AN-Conf/12-WP/4.

1. INTRODUCTION

1.1 The Airports Company South Africa (ACSA) and the Air Traffic and Navigation Services Company (ATNS) have formulated a Terms of Reference pertaining to the airside capacity study which was approved by both companies' Executive Committees.

1.2 This study will jointly determine current baseline airside capacities, determine intermediate capacity milestones and determine ultimate airside capacities pertaining to the three identified international airports.

1.3 Through a process of collaborative decision-making (CDM) with identified stakeholders all identified capacity enhancement initiatives will be agreed upon.

2. COLLABORATION TO ENHANCE OPERATIONAL EFFICIENCY

2.1 The scope of the airside capacity declarations will be initially limited to the three identified international airports.

2.2 Agreed to assumptions pertaining to each international airport will be documented assuring a common point of departure and resultant deliverables to be considered for implementation for each corresponding increase in capacity.

2.3 ACSA and ATNS will formulate the Airside Capacity Roadmap considering, but not limited to, the identified initiatives attached as Appendix A.

2.4 The Airside Capacity Roadmap will define the project outline, the required outputs and the timelines for each initiative.

2.5 Administrative arrangements, including venue and frequency of meeting, will be agreed and documented.

2.6 All costs will be determined beforehand and will be agreed, through the appropriate reporting channels, on a shared basis of both time and required resources.

2.7 The ATM community in South Africa has been widely engaged in the CDM efforts and consultation.

3. CONCLUSION

3.1 This study will be implemented within the near future and is expected to be finalized by the end of 2012.

3.2 The success of this study will be totally dependent on the value-add CDM participation of the identified stakeholders.

3.3 Identified stakeholders will be requested to confirm their participation and value-add contribution at the required level.

3.4 The meeting is invited to take note of the level of collaboration and cooperation in South Africa between ACSA, ATNS and identified Stakeholders.

APPENDIX

Initiatives to be considered for increasing capacity:

1. Existing procedures/rules
 - 1.1. ROT-D and ROT-A
 - 1.2. Pilot reaction times
 - 1.2.1. Line up & Take-off clearance
 - 1.3. Arrival and Departure sequencing
 - 1.4. Slots
 - 1.5. Situational awareness (for pilots)
 - 1.6. Multiple line ups (lined-up and ready to depart as soon as clearance is given)
 - 1.7. Intersection departures
 - 1.8. Take – off clearance
 - 1.9. Early turn outs
 - 1.10. Aircraft specific SIDS
 - 1.11. Visual separation after take-off
 - 1.12. Wake turbulence category grouping
 - 1.13. Minimise spacing/separations
 - 1.14. Arrival or departure priority
 - 1.15. Speed control
 - 1.16. Ground movement optimisation (one way)
 - 1.16.1. Fixed taxi routes
 - 1.17. Conditional clearances
 - 1.18. Minimum departure intervals
2. New Air Traffic Management Concepts
 - 2.1. PBN
 - 2.1.1. RNAV
 - 2.1.2. RNP
 - 2.1.3. CDA
3. Infrastructure
 - 3.1. Communication
 - 3.2. Navigation
 - 3.3. Surveillance
4. Building/Civil infrastructure
 - 4.1. RET's
 - 4.1.1. New
 - 4.1.2. Modifications to existing
 - 4.2. RAT's
 - 4.3. Holding Bays
 - 4.4. Parallel taxiways
 - 4.5. Dual apron taxiways
 - 4.6. Bypass taxiways

- 4.7. Multiple holding points
- 4.8. Remote holding areas
- 4.9. Visual aids & AGL
 - 4.9.1. Runway Exit Taxiway Indicator Lighting System
- 5. Aircraft equipment
- 6. Policy
 - 6.1. Limit non-scheduled traffic
 - 6.2. Minimum aircraft performance standards
 - 6.3. Utilising pricing to influence system performance
 - 6.3.1. Penalise high ROT
 - 6.4. Agree/establish acceptable system performance parameters (KPIs) (Eurocontrol)
 - 6.4.1. Tolerable delay
 - 6.4.2. Tolerable economic impact
 - 6.4.3. Tolerable environmental impact
 - 6.4.4. Acceptable network disruption
- 7. Human resources
 - 7.1. Pilot training
 - 7.2. Air traffic controllers (numbers and training)
 - 7.2.1. Aerodrome control coordinators during busy times

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