



TWELFTH AIR NAVIGATION CONFERENCE

Montréal, 19 to 30 November 2012

Agenda Item 6: Future direction

6.1: Implementation plans and methodologies

MIGRATION TOWARDS “BEST EQUIPPED BEST SERVED” (BEBS) ATM OPERATIONS

(Presented by the International Air Transport Association)

1. INTRODUCTION

1.1 The principle of First-Come-First-Served has served the aviation community well for many years. However, it needs re-consideration, in face of required system efficiency gains in an environment of fast traffic growth and technological transition.

1.2 Recently, the expression “Best Equipped Best Served” has been used to describe a mode of operations where those operators that have invested in modern aircraft equipage would be allowed to take full operational advantage of their investment.

1.3 When enabling operations under this principle, complexities caused by mixed fleets, airspace density and workload, will have to be carefully considered. Several other elements such as flight planning capability, crew training, etc. are also important factors.

2. DISCUSSION

2.1 IATA has a preference for the term Most Capable Best Served which better represents the intent of optimizing the efficiency of airspace operations. “Most Capable” is a term that regroups aircraft equipage, crew training, operational certification, flight planning capability and the ability to efficiently and seamlessly convey the pertinent capability to ATM. The expression Most Capable Best Served will be used in the following sections of this paper.

2.2 Typically, the most capable flights would be provided the opportunity to gain full advantage of their capability in order to maximize the overall efficiency of the ATM system and of the flight itself. It is important to discuss this concept as it will set the tone for the evolution of ATM.

2.3 Although the debate is currently primarily focused on NextGen and SESAR, determining which flights are Best Served has a global application. It is therefore critically important that there be common agreement on the definition, understanding and application of Most Capable Best Served. Non-harmonized State or regional applications of Best Served would cause significant problems for international carriers.

2.4 In the current environment of diverse equipage, it is appropriate, through an agreed process; to provide operational advantages to those airspace users that have advanced capabilities. Catering to the lowest common denominator by waiting for all users to be equipped before making changes will not provide for the best overall system efficiency. The objective of *Most Capable Best Served* is to maximize operational efficiency through collaboration. The entire process must be transparent and planning timelines well established from the outset.

2.5 *Most Capable Best Served* should be applied as a progressive tool to facilitate and accelerate the transition towards a more effective airspace use concept, taking into account the following considerations.

2.5.1 Each implementation of *Most Capable Best Served* would be geared to a defined ATM service volume and would consider the user capabilities within that airspace.

2.5.2 Any airspace improvement should be planned collaboratively from the outset. All stakeholders: service providers, regulators and airspace users would be involved in all phases in order to ensure optimal results.

2.5.3 *Most Capable Best Served* should be considered for implementation in any service volume where efficiency gains are sought and a significant proportion of aircraft have the desired capability.

2.5.4 *Most Capable Best Served* should be considered for implementation in any service volume where efficiency gains are sought and a significant proportion of aircraft have the desired capability.

2.5.5 Allowing aircraft to fly optimized procedures as early in the transition process as possible in order to provide experience and operational benefits. Even small percentages of optimal flight profiles provide some benefit.

2.5.6 Evaluating safety and controller workload factors introduced by new mixed aircraft capability environments must be a key consideration.

2.5.7 Verifying financial and operational capability incentives that can be applied when designing the operation. However, financial incentives should be carefully considered to avoid introducing competition distortion.

2.6 Aircraft equipage will occur when there is a positive business case to do so. Such a business case can result from direct operating cost advantages, from financial incentives, or both.

3. CONCLUSION

3.1 In face of the projected traffic growth, it is necessary for the ATM System to deliver maximum capacity while also providing the greatest efficiency possible. This requires optimum use of existing navigation infrastructure and fleet capabilities.

3.2 It is appropriate to allow operational advantages to more capable flights by providing incremental operational benefits based on careful consideration of the proportion of the fleet equipped and impact to the operational environment.

3.3 Provisions need to be developed to ensure all required considerations are taken when evolving towards a harmonized *Most Capable Best Served* concept.