



International Civil Aviation Organization

**The Twenty-Second Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/22)**

Bangkok, Thailand, 25 – 29 June 2012

**Agenda Item 5: Provision of ATM/AIS/SAR in the Asia/Pacific Region, including associated
CNS matters**

OPERATIONAL TRIAL OF SCAS

(Presented by Japan)

SUMMARY

This paper presents the information of the outlines of Specifying Calculated Fix Departure Time for Arrival Spacing Programme (SCAS) we have been conducting as the operational trial since 25 August, 2011.

This paper relates to –

Strategic Objectives:

*C: Environmental Protection and Sustainable Development of Air Transport –
Foster harmonized and economically viable development of international civil
aviation that does not unduly harm the environment*

Global Plan Initiatives:

GPI-6 Air traffic flow management

1. INTRODUCTION

1.1 SCAS stands for Specifying CFDT (Calculated Fix Departure Time) for Arrival Spacing Program. This is one of the Air Traffic Flow Management (ATFM) techniques in which ATC issues CFDT to aircraft. When an aircraft is assigned CFDT by ATC, it has to depart the specified fix on the route of flight at this specified time to mitigate expected traffic congestion.

1.2 The operational trial of SCAS commenced on 25 August 2011. Aircraft subject to this trial are those bound for Tokyo international airport (RJTT), and the detail was contained in AIC Nr 034/11.

2. DISCUSSION

2.1 When the ATM Center expects that the traffic volume will exceed the capacity of an airport or a sector of ACC within the next several hours, an Expected Departure Clearance Time (EDCT) will be assigned to aircraft concerned through the ACC. This is known as a ground delay program. (See Fig.1)

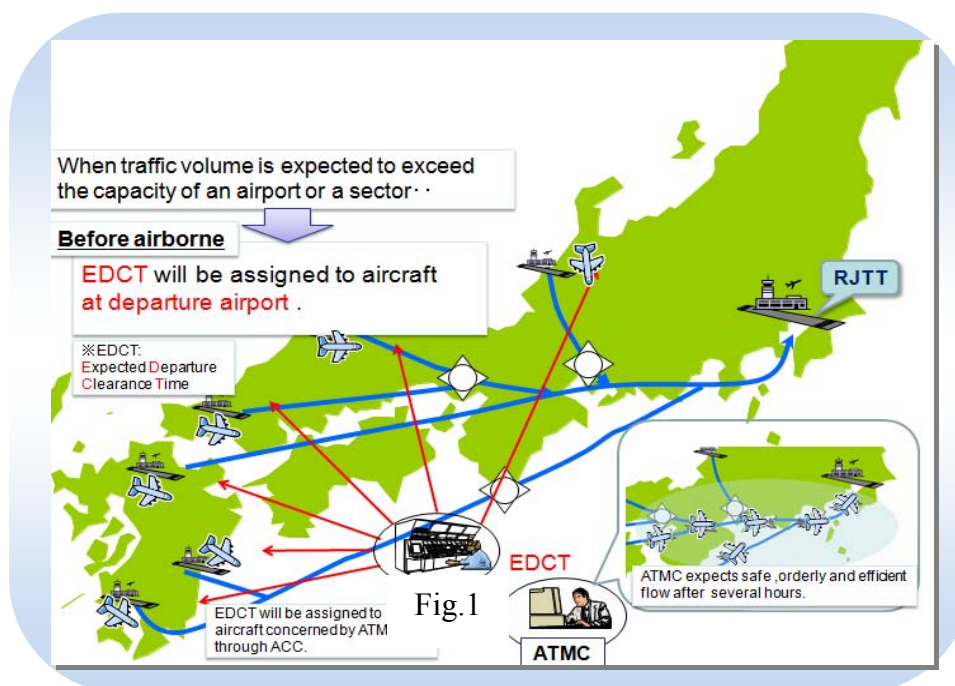


Figure 1

2.2 However, unexpected airborne delay often makes congestion, particularly around Tokyo metropolitan airspace. Under this circumstance, Air Traffic Controllers must deal with such congestion using a lot more radar vectors, speed adjustments, etc. This is why ATFM for in-flight aircraft is necessary.

2.3 When the ATM Center starts SCAS, CFDT is calculated and will be assigned to both domestic and international in-flight aircraft.

2.4 SCAS will improve traffic congestion within approach control area by implementing in-flight time adjustment (See Fig.2)

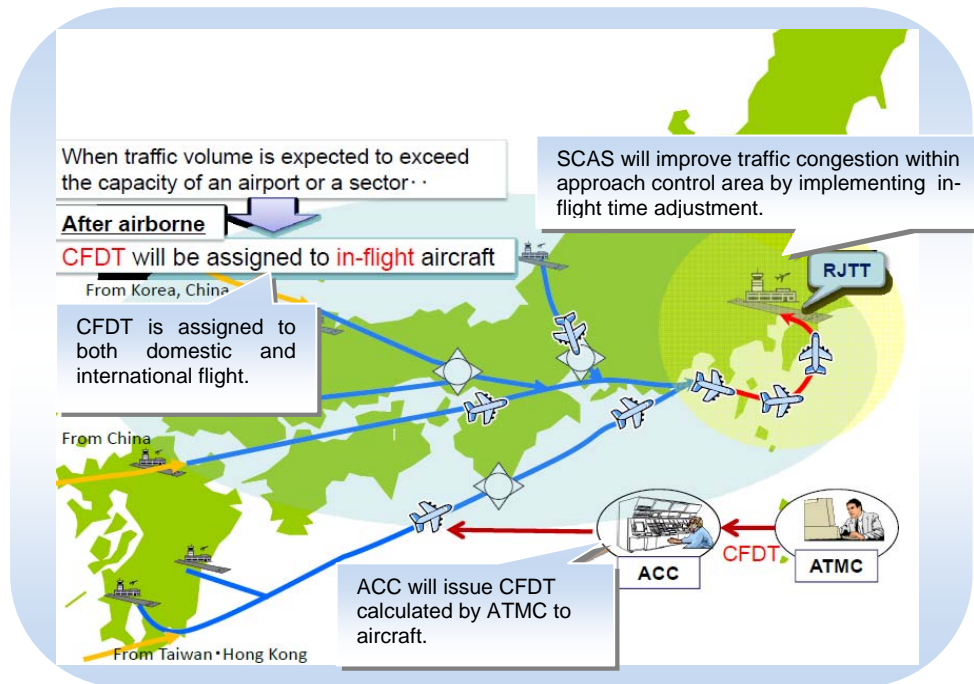


Figure 2

2.5 The effects of introducing SCAS are as follows.

- Congestion of air traffic can be improved by adjusting crossing time of the specified fix, which leads to the reduction of ATC work load.
- Fuel consumption will be reduced by avoiding excessive radar vectors, especially in lower altitudes.
- Equality and effectiveness of ATFM can be enhanced by covering aircraft from foreign airports under CFDT, which are not covered by EDCT.

2.6 We are now analyzing data and trying to improve CFDT to be more precise in order to realize safer, more efficient and economical traffic flow.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

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