



ICAO

International Civil Aviation Organization

**THE FOURTH MEETING OF MODE S
DOWNLINKED AIRCRAFT PARAMETERS
WORKING GROUP
(MODE S DAPs WG/4)**

Video Teleconference, 29 – 31 March 2021

Agenda Item 9: Next meetings and any other business

**PUBLISHING OF APAC SAC IN EUROCONTROL WEBSITE AND
THE MANAGEMENT OF APAC SIC**

(Presented by Singapore)

SUMMARY

EUROCONTROL publishes the System Area Codes (SAC) for the various regions except for Asia Pacific. This working paper discusses the considerations to publish the Asia Pacific SAC at the EUROCONTROL website.

1. INTRODUCTION

1.1 ASTERIX format, developed by EUROCONTROL, is the most common way to exchange surveillance data. In the ASTERIX message protocol, there is a System Area Code (SAC) and System Identification Code (SIC) field. The SAC identifies the State/geographical Region where the surveillance source is from and the SIC identifies the individual surveillance source.

1.2 The purpose of including SAC/SIC codes is to enable identification of surveillance sources. For the case of radars, SAC/SIC enables the user to match the radar data to an individual radar. For ADS-B and system tracks, the SAC/SIC allows troubleshooting of the surveillance source or processor (e.g. when erroneous data is received).

2. DISCUSSION

Listing of APAC SAC at the EUROCONTROL website

2.1 The EUROCONTROL website <https://www.eurocontrol.int/asterix> lists the SAC allocation for the ECAC area, which is managed by EUROCONTROL. The EUROCONTROL website also lists the other regions (i.e. South America & Caribbean, USA & Canada, African Region and Middle East). However, the SAC/SIC codes in Asia Pacific is not listed in the EUROCONTROL website.

2.2 It is believed that, by having all the SAC allocation available to EUROCONTROL, it will provide the researchers in EUROCONTROL on the information on how the SAC is used around the world. This will benefit in the development of future message protocol. Researchers at different parts of the world are also developing applications which may involve sharing of surveillance data across long distances (e.g. ATFM). Knowledge on the usage of SAC will be beneficial to them too.

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2.3 The conclusion below is thus proposed.

Draft Conclusion/Decision DAPs WG/4/XX - Updating EUROCONTROL on SAC allocation	
What: ICAO APAC Regional Office to update EUROCONTROL with the latest SAC allocation within Asia Pacific.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: EUROCONTROL published the SAC for all the regions except Asia Pacific. It be believed that the publication will be beneficial to the developers of future message protocol and surveillance related applications.	Follow-up: <input type="checkbox"/> Required from States
When: 27-Aug-21	Status: Draft to be adopted by PIRG
Who: <input type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX	

Management of SAC and SIC by ICAO APAC

2.4 ICAO APAC currently manages the SAC allocation for the Asia Pacific States. ICAO APAC also keeps track of the SIC allocation for the individual surveillance sources within the States.

2.5 Internally with States, the SIC is used to identify individual surveillance sensors, systems tracks, streams of surveillance data to different users etc. Such SIC may be changed frequently and it will be onerous to both the States and ICAO to ensure that the list maintained by ICAO is kept up to date. There is also limited benefit for ICAO to keep track of the SIC since there is no need for the allocation of SIC to be coordinated (i.e. no need to ensure that two states use different SIC). It is noted that EUROCONTROL also does not keep track of the SIC allocation within Europe.

2.6 The conclusion below is thus proposed.

Draft Conclusion/Decision DAPs WG/4/XX - Removal of the need for ICAO APAC to keep track of SIC allocation	
What: ICAO APAC Regional Office to coordinate the allocation of SAC within Asia Pacific and not the SIC.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: SIC is managed by State and there is little value for ICAO APAC to manage the SIC. Considering the workload to manage the SIC and the negligible benefits, it is proposed that ICAO APAC not to manage SIC.	Follow-up: <input type="checkbox"/> Required from States
When: 27-Aug-21	Status: Draft to be adopted by PIRG
Who: <input type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX	

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the contents of the paper; and
- b) discuss any matters as appropriate.
