SOUTH AFRICAN CIVIL AVIATION AUTHORITY

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REPUBLIC OF SOUTH AFRICA

CIVIL AVIATION AUTHORITY

AERONAUTICAL INFORMATION CIRCULAR

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AIC
44·2
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AIR NAVIGATION SERVICES

RADAR SERVICES

RADAR CONTROL

1. ***PURPOSE***

The purpose of this AIC is to inform the aviation community of intended developments in the airspace surveillance and undertake final consultation prior to implementation.

2. ***BACKGROUND***

2.1 *Consistent with the implementation of electronic surveillance within areas deemed appropriate for ATM system safety reasons and the planned upgrading of certain obsolete existing surveillance systems, an extension to the current SSR transponder carriage criteria and use may be required.*

2.2 *To ensure that maximum use is made of the available and affordable technology, ATNS intends to install an active electronic surveillance system at FAGG and is planning to move away from the passive surveillance systems at FAEL and FAPE in favour of the active systems only.*

2.3 *After extensive consultation and consideration of the Global, Regional and National ATM system requirements, ATNS is planning for the use of SSR only in terminal areas where efficiencies can be achieved by electronic surveillance backed up by procedures, and safety can be enhanced by the additional information provided*

2.4 *This will also effectively mean that more efficient services can be provided at FABL with the existing stand alone SSR.*

3. ***GENERAL***

3.1 *For the purposes of clarity it needs to be documented that in the context of this AIC, a passive electronic surveillance system comprises of Primary Surveillance Radar (PSR) whereas an active surveillance system could include Secondary Surveillance Radar (SSR) and emerging technologies such as Airborne Automatic Dependent surveillance-Broadcast (ADS-B).*

3.2 *The deployment of SSR only for ATC and surveillance in the Area Control environment and as a supplemental aid in certain TMA has been in place for years and used with great success. (see AIP ENR 1.6 - 3 to 6).*

3.3 *In order to support the use of electronic surveillance as mentioned in paragraph 3.2 above, an extension to the current published transponder requirements will need to include all aircraft operating within the TMA and CTA airspaces mentioned in ENR 1.6 - 6. as well as above, below and within 5NMs (vicinity) of the lateral limits of such airspaces. The CTR requirements as published, will obviously remain unchanged.*

3.4 *The requirement will be for the equipping and use of transponder Modes A and C within the vicinity of the mentioned airspaces in accordance with the AIP*

4. ***CONCLUSION***

4.1 *It is envisaged that depending on approvals, only FACT, FADN and FAJS will be equipped with PSR and SSR in the near future and that all other TMAs where electronic surveillance is justified will be equipped with SSR only.*

4.2 *The actual implementation of the intent expressed within this AIC and dates will be published via the standard AIP*

amendment procedures and in accordance with the AIRAC process.

4.3. Implementation is expected to commence during 2005

5. ADDITIONAL INFORMATION CAN BE OBTAINED FROM:

ATNS
Manager: Operational Planning Services
Tel: 011 961 0100

SA CAA
Commissioner for Civil Aviation
Tel: 011 545 1000

Written representations in favour of or against the said planned implementation may within thirty days be made to the Commissioner for Civil Aviation, fax 011 5451459.

COMMISSIONER FOR CIVIL AVIATION