NATIONAL IFF/SSR POLICY BOARD

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8AP/65/02/57

APPROVAL OF AIRBORNE IFF/SSR INTERROGATORS – MODE S

As you will be aware, the Air Navigation Order was amended in 2005 to introduce the regulations for mandatory carriage of Mode S Enhanced Surveillance (EHS) transponders in Notified Mode S airspace within the UK. The proposed second phase of UK Mode S implementation (currently undergoing public consultation) is to mandate Mode S Elementary (ELS) transponder carriage throughout UK airspace for all aircraft by 31 March 2008, with a proposed transition period until 31 March 2010. For state aircraft, the extant fleet-based exemption policy is valid until 31 March 2009. With current and proposed UK mandates, it is currently envisaged by the CAA that approximately 95% of UK registered aircraft will be equipped with either an EHS or ELS Mode S transponder by 31 March 2010.

Timescales for conversion of the 2 NATS centers to Mode S are yet to be finalized. Whilst the focus of NATS and the CAA is currently centered on 2012, a number of factors could see this date move in either direction. Expansion of Notified EHS Mode S airspace into the UK en-route structure is forecast for no earlier than 31 March 2010, but will be aligned with the NATS conversion of Swanwick and Prestwick. Consequently, from a date no earlier than 31 March 2010, but more likely to be 2012, the UK will declare the UK FIR/UIR as Notified Mode S airspace to the Eurocontrol Central Flow Management Unit. This declaration will allow ATC use of the Mode S 1000 conspicuity code within UK airspace and access to the expected Mode S ATM benefits. You should therefore note that, from 31 March 2010 at the earliest (but more likely 2012) the production of a UK Recognized Air Picture could be hindered by the lack of appropriate Mode S Interrogator coverage.

You will recall that the NISC policy for all UK civil and military ground-based interrogators has already been made clear[1]. It is now apposite to consider MoD equipage plans for airborne Mode S IFF/SSR interrogators. Accordingly, I am writing to inform you that from 31 December 2011, it is considered extremely unlikely that the National IFF/SSR Committee (NISC) will approve airborne non-Mode S IFF/SSR interrogators aboard ISR platforms for surveillance of any portion of the UK FIR/UIR. Future approvals for airborne non-Mode S IFF/SSR interrogators aboard ISR platforms will not be valid after 31 December 2011. Future approval of airborne non-Mode S IFF/SSR interrogators aboard combat aircraft will be assessed after the NISC has had sight of the overall

[1] 8AP/65/02/57, Approval of Ground-based IFF/SSR Interrogators.

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MoD Mode S transition plan in the DISC forum. This NISC policy is consistent with CAA DOC 714[2], and with CAP 761[3] that replaced it in January 2006.

The transition to a coherent air and ground Mode S environment is essential to allow continued growth within all sectors of the aviation industry. The NISC will continue to safeguard the 1030 and 1090 MHz frequencies in order to allow the safe operation of IFF/SSR and ACAS/TCAS. In order to assist the NISC in this task, I would ask that you provide the NISC Secretariat with a written outline of MoD airborne Mode S interrogator plans for all ISR and combat aircraft. I am content that this work be included in the ongoing DISC action for details of the overall MoD Mode S transition plan. Should you require any assistance or further information, please do not hesitate to contact the NISC Secretariat.

[Original signed]

S G WRAGG
Gp Capt
Chairman
NISC

[2] CAA DOC 714, Operation of IFF/SSR Interrogators in the UK Planning Principles and Procedures, 8th Edition, August 2002.
[3] CAP 761, Operation of IFF/SSR Interrogators in the UK Planning Principles and Procedures, 1st Edition, January 2006.