



DDO  
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ON FEDERAL AVIATION

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Mr JRD Arscott  
Director  
Directorate of Airspace Policy  
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UNITED KINGDOM

Dear Mr Arscott

Thank you for the opportunity to comment on your Partial Regulatory Impact Assessment (RIA) dated 20 January 2004. Enclosed with this letter are responses to the questions in Appendix 6, Consultation Response Form.

We understand and support the United Kingdom Civil Aviation Authority (UK CAA) as well as other European countries' initiatives to implement advanced technologies, such as Mode Select (Mode S), to maintain the current levels of aviation safety and capacity as traffic levels continue to grow. Due to significant concerns and the small contribution to traffic volume identified with state aircraft, we believe all state aircraft should be exempt from Mode S Enhanced Surveillance (EHS). The Department of Defense (DoD) has a plan to equip as many aircraft as reasonably possible with Mode S Elementary Surveillance (ELS). Further, we have commissioned a committee to evaluate current equipage requirements and impacts of non-equipage for Mode S EHS.

Unfortunately, the DoD faces many challenges in regard to meeting this as well as other CNS/ATM mandates. The military operates on a much longer budget cycle than does the civil sector and our fleets are larger and significantly older. For security reasons, we also have concerns with broadcasting aircraft intention information. In light of these challenges, the DoD will cooperate and maintain liaison with the UK and other European CAAs to ensure a coordinated exemption policy.

While understanding the desired effect, we are particularly concerned about expansion of EHS within the en route system, which could significantly hamper the DoD's mission. The DoD operates a diverse fleet of aircraft, all requiring global airspace access to satisfy US national and NATO mission objectives. Although we have many aircraft stationed outside Europe, we have limited flexibility to regionalize our fleets. To meet the DoD's global mission as well as the goal



of a safer air traffic environment, the DoD is committed to working closely with you and other States implementing Mode S to ensure safety as well as airspace access.

To best accomplish the task ahead, the DoD wishes to develop a better understanding of the requirement. We interpret your document to say EHS is not required for certain aircraft types, including, but not limited to, helicopters, fighters and lightweight unmanned surveillance aircraft. Many aircraft in the DoD inventory cannot be equipped with EHS due to technical infeasibility, and some aircraft only require occasional access to the airspace; for example, we consider our bomber fleet to belong in both these categories. Based on the above rationale, we have no plans to equip any of these aircraft with EHS.

Where technically feasible and operationally necessary, we are equipping legacy fleets that routinely operate in the European Mode S area with the appropriate level of Mode S as rapidly as possible. As older aircraft are replaced, we anticipate integrating EHS on some new aircraft, as required. Although a significant number of our aircraft are equipping with ELS, some will not meet proposed UK timelines due to extended production and/or installation schedules. When specific regulatory information becomes available, the DoD will seek temporary or permanent exemptions if necessary.

We appreciate the UK's need to modernize its airspace system to ensure the level of safety and service necessary for future operations. Of the two remaining options identified in the RIA, the DoD supports Option 2. This option is technically feasible and more cost effective for the DoD than Option 3. Please give due consideration to these inputs as you work to introduce a new SSR system in the high-density airspace surrounding the major UK airports and along major UK air routes.

Sincerely



CARL MCCULLOUGH  
Executive Director  
DoD Policy Board  
on Federal Aviation

Enclosure:  
Appendix 6, Consultation Response Form

**Appendix 6**  
**CONSULTATION RESPONSE FORM**  
**Provided by the DoD**

1. Are the quantitative estimates of the benefits of Option 2, which were included in the Eurocontrol CBA, still valid? If not, what additional quantitative estimates of the benefits of Option 2 are available?

The DoD's business case is fundamentally different from that of commercial airlines. There are negligible financial benefits for Mode S fitment, but continued access to UK en route airspace is key to mission performance.

2. Are the quantitative estimates of the benefits of Option 3, which were included in the Eurocontrol CBA, still valid? If not, what additional quantitative estimates of the benefits of Option 3 are available?

Same as 1.

3. In addition to the business sectors that have been identified in the Competition Assessment at Appendix 2, what other aviation businesses could be affected by this regulatory proposal?

In addition to the identified affected business sectors the DoD is also affected. This will affect our maritime, airborne, and ground based assets.

4. Are the quantitative estimates of the costs of Option 2 accurate? If not, what additional quantitative estimates of the compliance costs of Option 2 are available? (Costs for large, medium and small aircraft are requested as well as overall costs to companies, particularly small businesses.)

Quantitative estimates do not reflect the unique nature of DoD's fleet, which requires higher expenditures for ELS. For the following reasons.

The DoD fleet consists of roughly 15,000 airborne platforms and nearly 150 individual aircraft types. Each type may have multiple configurations which can require unique development efforts.

Integration cost on legacy platforms is very high due to older analogue systems. A significant portion of our fleet are 1950s and 60s vintage aircraft.

5. Are the quantitative estimates of the costs of Option 3 accurate? If not, what additional quantitative estimates of the compliance costs of Option 3 are available? (Costs for large, medium and small aircraft are requested as well as overall costs to companies, particularly small businesses.)

In addition to the factors identified in answer #4, the DoD's integration costs for EHS are significant and in some cases prohibitively expensive.

6. What other compliance costs not identified in this consultation document would arise from the implementation of Option 2 and what quantitative data is available to support this?

DoD costs are not included in the overall estimates. This will affect our maritime, airborne, and ground based assets.

7. What other compliance costs not identified in this consultation document would arise from the implementation of Option 3 and what quantitative data is available to support this?

DoD costs are not included in the overall estimates. This will affect our maritime, airborne, and ground based assets.

8. What other costs not identified in this consultation document would arise from the implementation of this regulatory proposal and what quantitative data is available to support this?

Likewise the DoD will incur costs in training, logistics, maintenance and spares. We estimate that our costs would be significant due to the age, size and diversity of the DoD fleets.

9. What other market sectors not identified in the Competition Assessment would be affected by this regulatory proposal?

No Comment.

10. Is the analysis on the effect of the regulatory proposal on airline costs correct? If not, what additional quantitative economic data is available to support an alternative analysis?

No Comment.

**11. Would the asymmetric impact of Options 2 and 3 affect competition in the short term or long term in those markets where small aircraft and large aircraft are operated on the same routes?**

N/A

**12. What effect would Options 2 and 3 have on competition in the Air Taxi and Air Ambulance aviation markets and what quantitative data is available to support this?**

N/A

**13. What effect would Options 2 and 3 have on competition in the aviation market for Pilot Training Schools and what quantitative data is available to support this?**

N/A

**14. What effect would Options 2 and 3 have on competition in the Corporate Aircraft Services aviation market and what quantitative data is available to support this?**

N/A

**15. What effect would Options 2 and 3 have on competition in the aviation market for Aerial Work and what quantitative data is available to support this?**

N/A

**16. Are there any other issues surrounding this regulatory proposal that has not been included in this consultation document, which the CAA needs to take into account?**

Due to the significant considerations raised and the small contribution to traffic volume identified with state aircraft, we would request that all state aircraft be exempt from EHS.

Due to the complexity of requirements, the DoD would benefit from a single point of contact and a coordinated European exemption policy for state aircraft.

For security reasons, we also have concerns with broadcasting aircraft intention information.