



**Extended Operations of Multi-engine Airplanes (ETOPS)  
ETOPS Proposed Rule; Docket No. FAA-2002-6717**

1. THE FAA'S RISK MODEL IS FLAWED AND THE CORRESPONDING REGULATORY EVALUATION DOES NOT PROVIDE ADEQUATE, TRANSPARENT DATA TO JUSTIFY EXTENDING ETOPS REQUIREMENTS TO 3-AND 4-ENGINE AIRPLANES.

FAA's justification for extending ETOPS requirements to 3- and 4-engine aircraft is based on a new risk model which was adopted solely by the FAA for purposes of extending ETOPS requirements to multi-engine aircraft. This risk model is not supported by the industry and is flawed on many levels. For example, the risk model assumes the fourth engine on a 4-engine airplane provides no additional safety benefit compared to the loss of all engines on a 3-engine airplane. Moreover, the FAA notes that, "the biggest threat to long-range operational safety continues to be the loss of thrust from multiple engines resulting from common cause multiple failures; cascading multiple failures; and fuel exhaustion." 68 Fed. Reg. 64733 (Nov. 14, 2003). FAA goes further and provides some concrete examples, however, none support the need for the rule. The examples listed do not relate to ETOPS operations and would not have been prevented had the rule been in effect at the time of these events.

The FAA has simply not identified any actual risks that can justify the proposed rule as regards 3- and 4-engine aircraft. The FAA's discussion of the rule in this regard raises theoretical, but not actual, problems—problems

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that have never occurred in the history of 3- and 4-engine jet flying. There simply is no justification for applying the rule beyond twin engine aircraft. When a single engine fails on a twin, the flight is one more failure away from disaster. That is not true for 3- and 4-engine aircraft, which have inherent redundancy of the additional engine(s). In short, the FAA addresses, in this rulemaking for 3- and 4-engine aircraft, a problem that simply does not exist.

Moreover, the FAA did not provide an adequate or thorough regulatory evaluation which makes any independent analysis very difficult. The OMB provides as a guide to regulatory agencies that a good regulatory analysis include the following three basic elements (1) a statement of the need for the proposed action, (2) an examination of alternative approaches, an (3) an evaluation of the benefits and costs – quantitative and qualitative – of the proposed action and the main alternatives identified by the analysis. OMB Circular A-4, p. 2 (Sept. 17, 2003). The FAA offers no alternative approaches. In fact, the rule appears to have been developed with a predetermined outcome in mind. The FAA does not clearly justify the need for the rule as regards 3- and 4-engine aircraft, does not provide any thorough cost/benefit data or take the time to analyze alternative approaches that would enhance safety in a more cost-effective manner.

2. THE COSTS FAR OUTWEIGH THE BENEFITS AS THE COST SAVINGS FACTORED INTO EVALUATION ARE NOT ACCURATE.

FAA stipulates that the rule would yield cost savings for the operator of 3- and 4-engine aircraft. This is simply not the case. Significant direct costs including aircraft modifications, operational costs such as different routing, and training costs to implement the program were

not adequately considered in the regulatory evaluation. The FAA concludes that 3-and 4-engine operators would save \$207.7 million over a 10-year period, in part because of the ability to fly the most direct route between two points which results in fuel savings and reduces operating costs. 68 Fed. Reg. 64777, 64779. This statement is easily contradicted since at the present time with no ETOPS requirements for 3-and 4-engine airplanes operators fly the most direct route. If this rule were finalized as proposed, routing and operations would change significantly and thus costs would rise drastically. All segments of the industry agree that FAA did not adequately balance the costs and benefits of this proposed rule (see comments in docket). In particular, while there are certainly benefits to be accrued for 2-engine operators, there are no benefits—only costs—which accrue to the operators of 3-and 4-engine aircraft. The FAA ignores the fact that the problem they seek to address for 3-and 4-engine aircraft has never occurred in the history of jet flight.

3. THE OPERATIONS OF ALL-CARGO CARRIERS AND THE AIRCRAFT WHICH ARE UTILIZED AS FREIGHTERS ARE UNIQUE AND DESERVE A SEPARATE REGULATORY ANALYSIS.

As noted above, the FAA relied on a certain risk model and analyzed a limited set of costs and benefits. However, the operational characteristics of all-cargo carriers are significantly different from our passenger-carrying counterpart. For example, freighter aircraft are not specifically dedicated for long-range operations therefore, the carriers would have to equip all of its multi-engine aircraft under the ETOPS requirements. This and other unique impacts on the all-cargo market should be considered separately.

Moreover, the rule itself in large part focuses on the effect of possible aircraft diversions because of the well-being of passengers. All-cargo carriers do not carry passengers in any

generally-accepted definition of that term. In fact, the number of persons aboard an all-cargo aircraft is small and mainly comprised of flight crew. Flight crew personnel undergo medical checks and must be fit to fly so they should not be considered in the same vein as the general public. These differences should be taken into consideration in any analysis of the proposed regulation, as FAA did in its proposal for fuel tank inerting. There, the lack of benefits dictated the non-application of the rule to all-cargo operations. The same rationale should be applied here.



*The Cargo Airline Association*  
*Briefing on Extended Operations*  
*ETOPS*  
*for*  
Office of Management and Budget

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## *CAA Briefing on ETOPS NPRM*

- FAA issued the ETOPS NPRM on November 14, 2003.
- The NPRM proposes to expand extended range regulatory requirements for two-engine aircraft to aircraft with more than two engines.
- Comments were filed on March 12, 2004, with opposition from the cargo industry.

# *CAA Briefing on ETOPS*

CAA opposes the substance of the FAA's rulemaking for the following reasons:

- The FAA's analysis of cost to affected carriers is flawed, and indeed, this rule, if implemented to three and four-engine aircraft, would impose significant new direct costs that were not adequately considered.
- The FAA has simply not provided appropriate and actual risks that could have been or will be avoided by multi-engine ETOPS rules that would justify the application of ETOPS requirements to three and four-engine aircraft.
- The FAA acknowledges an improvement in engine performance and maintenance capabilities, but substitutes human risk factors as a justification for the proposed expansion.
- The FAA does not distinguish between passenger and cargo operators, which have different operational characteristics and different fleet compositions.

# *CAA Briefing on ETOPS*

CAA opposes the process of the FAA's ETOPS rulemaking for the following reasons:

- The outcome of the rulemaking was prescribed before the issuance of the rule.
- The regulatory evaluation does not meet the standards provided by the OMB which include:
  1. a statement of need for the proposed action,
  2. an examination of alternative approaches,
  3. an evaluation of the benefits and costs – quantitative and qualitative – of the proposed action, and the main alternatives identified by the analysis.

(OMB Circular A-4, p.2 (September 17, 2003))

# *CAA Positions*

- CAA agrees with the proposed enhancements of ETOPS rules for two-engine aircraft and indeed, a final rule should be issued for two-engine aircraft.
- In order to adequately address the concerns of the comments in the docket regarding the regulatory evaluation and to properly justify an expansion of the rules, a new, complete and thorough regulatory evaluation is necessary.
- If a new evaluation is to be provided with any Final Rule, the FAA should allow for public comment on the new regulatory evaluation by issuing a Supplemental Notice of Proposed Rulemaking (SNPRM) on three and four-engine aircraft.
- The impact on the cargo industry should be considered separately and alternatives should be fully analyzed.

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