

**BEFORE THE
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

Request for Public Comment)

FAA Docket No. 29547

207-Minute Extended Range)
Operations With Two-Engine)
Aircraft (ETOPS))
Operation Approval Criteria)

**COMMENTS OF
THE INDEPENDENT PILOTS ASSOCIATION**

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Introduction

The Independent Pilots Association ("IPA") represents over 2000 airline pilots employed by United Parcel Service and therefore has a fundamental interest in aviation safety. Our member pilots operate all-cargo flights that would be affected by the policy requested by the Air Transport Association ("ATA") for 207-minute ETOPS operation approval criteria. *See 207-Minute Extended Range Operations With Two-Engine Aircraft (ETOPS) Operation Approval Criteria*, FAA Docket No. 29547, 64 Fed. Reg. 22667 (April 27, 1999). IPA opposes the request for the following reasons. First, cargo aircraft that would be subject to this revised ETOPS policy are not equipped with fire suppression systems; therefore the ATA proposal to extend operations even further would endanger the lives of pilots, crew and jumpseat riders in the event of an in-flight fire. Second, stretching extended operations to 207 minutes is based on flawed reasoning that, if alternate airports are often temporarily closed, the maximum allowable flying time from an airport should be extended rather than reduced. Third,

it is possible that this proposal could have the unintended effect of leading to the closure of certain en route airports in the North Pacific.

**207-Minute Operations Will
Further Endanger Lives**

Authorizing two-engine aircraft to make extended range operations of up to 207 minutes will further endanger the lives of cargo pilots, crew and jumpseat riders, because of the absence of fire suppression systems on all-cargo aircraft. While the proposal appears to be based on the premise that fire suppression systems can contain an on-board cargo compartment fire for 222 minutes (see 64 Fed. Reg. at 22668), that premise is very dubious with respect to all-cargo aircraft. Because all-cargo aircraft lack fire suppression systems, allowing all-cargo aircraft to fly for an extended distance from an airport suitable for emergency landing poses a significant, and unwarranted, threat of an uncontrolled fire. For instance, in the case of Federal Express flight 1406 in September 1996, its close proximity to an airport at which it could make an emergency landing was critical to saving the lives of its crew and jumpseat riders when a fire broke out in the aircraft's main cargo deck while it was 200 miles from its destination.

Moreover, the Class E cargo compartments that are permitted on all-cargo aircraft are not required to have liners that are as fire resistant as those in Class B, C, or D compartments on passenger aircraft. *Airworthiness Standards; Fire Protection Requirements for Cargo or Baggage Compartments*, 51 Fed. Reg. 18236, 18237 (1986) (amendment to 14 C.F.R. Part 25) (Class E compartments "do not depend on the integrity of the liner . . . to limit the supply of oxygen, as in a Class D compartment."); see also *Revised Standards for Cargo or Baggage Compartments in Transport Category Airplanes*, FAA Docket No. 28937, Notice No. 97-10, 62 Fed. Reg. 32411 (June 13, 1997) (proposed amendment to 14 C.F.R. Parts 25, 121 and 135). However, the FAA

has noted that “the cargo compartment liner is the initial fire barrier for the protection of aircraft components, structure, passenger, and crew from a fire inside the cargo compartment” National Transportation Safety Board, *Hazardous Materials Incident Report: In Flight Fire, McDonnell Douglas DC-9-83, N569AA, Nashville Metropolitan Airport, Nashville, Tennessee, February 3, 1988 (NTSB/HZM-88/02)* at 27 (citing June 1983 FAA Technical Center report on effectiveness of Class D compartment in containing fire through oxygen starvation). In light of the fact that many all-cargo aircraft are equipped with Class E compartments, and that even Class D compartments are not designed to control fires caused by certain hazardous materials or devices transported on cargo aircraft, extending the ETOPS limit to 207 minutes will further place these aircraft and their crew in jeopardy in case of fire.¹

ATA’s proposed review of an aircraft’s airframe-engine combination to determine whether 207-minute operations are safe would supposedly ensure that “[t]ime-related cargo fire limitations shall not be less than the approved 207 minutes plus an additional allowance of 15 minutes (for holding, an approach, and landing) for a total of 222 minutes.” See 64 Fed. Reg. at 22668. Without adequate containment equipment and without any fire suppression systems at all aboard cargo aircraft, IPA

¹ The destruction of ValuJet Airlines Flight 592 in May 1996 demonstrates this point. The compartment within which the fire began, a Class D compartment, was not equipped with a fire suppression system; thus even once the crew detected the fire, they could not extinguish or suppress it while in the air. National Transportation Safety Board, *In-Flight Fire and Impact With Terrain, ValuJet Airlines, Flight 592, DC-9-32, N904VJ, Everglades, Near Miami, Florida, May 11, 1996*, at § 2.2 at 103. Clearly, the Class D compartment failed to contain the fire and the aircraft crashed, killing all of its occupants. Thus, the FAA’s assumption about the ability of cargo compartment liners to contain fires is not borne out by actual events. With all-cargo aircraft having compartment liners that are even less fire resistant than the one aboard ValuJet Flight 592, all-cargo aircraft are even less able to withstand the dangers of an in-flight fire than are passenger aircraft.

has no confidence that fires would be contained within cargo compartments for the extended period of time.

While ATA's proposal includes seven criteria to be applied when 207-minute ETOPS is requested in lieu of 180-minute ETOPS, these criteria do not include fire suppression safeguards on board the subject aircraft. *See id.* The criteria underscore the need for rescue and firefighting capability on the ground:

Operators shall ensure that adequate levels of RFFS [Rescue and Fire Fighting Services] for en route ETOPS alternates are available. For the case of 207-minute ETOPS, the aircraft must remain at all times within 207 minutes of at least one adequate airport (as defined in AC 120-42A, Appendix 3) which has an RFFS of International Civil Aviation Organization (ICAO) Category 7 or higher. If such equipment is not available on the airport, an equivalent level of support must be reasonably accessible given notification of the divert.

Id. ATA apparently recognizes that on-board fires are a possibility, and that en route airports must be equipped to deal with this potential problem. However, providing for fire fighting services on the ground does not go far enough to ensure the safety of cargo aircraft, which, because of their lower equipment standards, might not be able to contain a fire long enough to land at such an airport to take advantage of the RFFS.

In fact, the FAA has recognized that cargo fire containment is an important consideration in determining the safety of extended range operations. For example, in Advisory Circular No. 120-42, the FAA stated that:

some of the factors related to [the overall safety of] extended range operations are not necessarily obvious. For example, cargo compartment fire suppression/containment capability could be a significant factor Any decision relating to extended range operations with two-engine airplanes should also consider the probability of occurrence of any condition which would prevent the continued safe flight and landing as well as the probability of occurrence of any condition which would reduce the capability of the airplane or the ability of the crew to cope with adverse operating conditions.

FAA Advisory Circular No. 120-42, Extended Range Operation With Two-Engine Airplanes, at ¶6 (June 6, 1985). Further, the FAA stated that:

The cargo compartment design and fire protection system capability (if required) should be consistent with the following:

- (i) Design. The cargo compartment fire protection system integrity and reliability should be suitable for the intended operation considering fire detection sensors, liner materials, etc.
- (ii) Fire Protection. An analysis or tests should be conducted to show that, considering the time required to terminate an extended range operation, the ability of the system to suppress or extinguish fires is adequate to assure safe flight and landing at a suitable airport.

Id. at ¶7c(6) (emphasis in original). Without fire suppression systems, and cargo liners that actually contain fires, extended range operations for all-cargo aircraft are not safe and should not be allowed by FAA.

Finally, ATA states that its members (and other signatories to the ATA's request to the FAA) are "prepared to offer a modification to the cargo fire protection system that accommodates the 15% extension in ETOPS diversion time, even though risk analysis methodology does not demonstrate a need for such a modification." *Id.* at 22669. Were there any existing fire suppression systems aboard all-cargo aircraft, this offer for enhancement might be meaningful. In the absence of such fire suppression systems, it is not clear what ATA and its members are proposing. If they mean to require that all-cargo planes be equipped with fire suppression systems, they should say so explicitly.

The 207-Minute Proposal is Based on Flawed Reasoning

ATA proposes that the FAA consider the following in developing and issuing the 207-minute ETOPS policy:

- a. 180-minute ETOPS is adequate to permit two-engine operation on almost all the heavily traveled routes in the world. Due to a number of factors (including occasional political concerns, airport suitability considerations due to higher weather minima at dispatch, various weather related events and operational necessities), a need exists for an additional ETOPS authority beyond 180 minutes on a flight-by-flight exception basis.

Id. at 22668. The logic of this appears to be backwards. Problems with alternate airports en route argue for decreased ETOPS time and shorter distances between alternate airports.² The logical extension of the ATA's reasoning is that, as airport closures become more of a problem, FAA should just extend ETOPS time limits until there are no longer any limits at all. The FAA should not take the dangerous step proposed by ATA.

The ATA proposal is akin to a family travelling along a highway with a 3-year old child, figuring that, because certain rest stops along their normal route might be closed, they might as well travel on a route which has even longer distances between rest stops, and then simply ask the child to "hold it in" a little longer until the next available rest stop. In both cases, the chances of an accident are increased, but for a miscalculation concerning ETOPS, rather than rest stops, the resulting accident would be a disaster, not just an inconvenience. Even ATA seems to recognize this logical gap by stating that 207-minute ETOPS are "not intended to permit use of routes that cannot normally be operated with a 180 minute approval." *See id.* at 22669. The only way to ensure this does not happen is to decline to extend ETOPS beyond 180 minutes.

² Again, the lack of fire containment and suppression systems onboard all-cargo aircraft argues for restricting the range of these aircraft so that they are always in close proximity to an alternate en route airport. *See* FAA Advisory Circular No. 120-42, App. 3, ¶1a ("Whereas most two-engine airplanes operate in an environment where there is usually a choice of diversion airports available, the extended range airplane may have only one alternate within a range dictated by the endurance of a particular airframe system (e.g., cargo fire suppressant), or by the approved maximum diversion time for that route.").

**207-Minute Operations Might Force
the Closure of Certain North Pacific Airports**

ATA claims that “[a]llowing 207-minute ETOPS extension is not intended to encourage or support further closure of en route alternate airports.” *Id.* at 22668. There is no discussion of how this unintended consequence would be prevented. Permitting a longer range of flight means, theoretically, that fewer alternate airports are needed en route, which certainly would do nothing to ensure the continued operation of airports in the North Pacific that are ETOPS alternate airports. Closure of such airports would adversely impact aviation safety, especially in the North Pacific.

Conclusion

IPA opposes ATA’s request for an extension of the current 180-minute ETOPS authority to 207 minutes. All-cargo aircraft are not equipped to handle fires on board when they are 180 minutes away from an airport at which they can land, much less 207 minutes away. Extending the ETOPS time limitation to 207 minutes is based on flawed reasoning, and may jeopardize the continued operation of alternate airports that are available in emergency situations. In sum, ATA’s proposal would have an adverse effect on aviation safety, and the FAA should reject it.