

operator operating a route beyond 180-minutes. The operator reported that operating beyond 180-minutes saved 27 minutes on a westbound trans-Pacific flight and 11 minutes on the return leg. The annual hours saved would total approximately 231 hours based on a single daily roundtrip. The total annual savings based on hourly operating costs of \$4,500 would be \$1,040,000; the ten-year savings would be \$10.4 million or \$7.3 million, discounted. The costs of the proposed rule to this operator are estimated in the Cost section at \$106,500 or \$75,900, discounted. This operator would have net cost savings of \$10.3 million or \$7.2 million, discounted over a 10-year period.

Part 121 operators of three- or four-engine airplanes would be required to make a similar judgment if they elect to fly beyond 180-minutes ETOPS. However, the net cost savings would take longer to achieve than if the rule had not been proposed since there are proposed costs that are not currently required for three- or four-engine

airplanes to fly beyond 180-minutes. A part 121 operator of a three- or four-engine fleet serving a single route beyond 180-minutes assuming the same time savings of 38 minutes per round trip and a single daily roundtrip would have total annual savings of \$1,965,000 based on an hourly operating costs of \$8,500. The ten-year savings would be \$19.7 million or \$13.8 million, discounted. The costs of the proposed rule to this operator are estimated in the Cost section at \$3.7 million or \$2.8 million, discounted. This operator would have net cost savings of \$16 million or \$11 million, discounted over a 10-year period.

Part 135 operators currently are not permitted to operate beyond 180-minutes from an airport meeting minimum requirements but the proposed rule would allow these operators to do so. Those that elect to incur the costs associated with the proposed rule would experience cost savings attributable to the proposed rule. The timesaving varies by route,

airplane speed, and prevailing winds. A part 135 operator with less fuel capacity would be able to avoid a fuel stop in each direction, which would result in significant timesaving. The FAA estimates that a part 135 operator would save 2 hours of flying time per round trip by operating beyond 180-minutes. A part 135 operator with a fleet of four airplanes, with each airplane operating 12 roundtrips beyond 180-minutes ETOPS per year would save 96 hours annually or 960 hours over a 10-year period. The cost savings associated with the timesaving would total \$9.6 million or \$6.7 million, discounted. The costs of the proposed rule to this operator are estimated in the Cost section at \$1.1 million or \$777,000, discounted. This operator would experience net cost savings of \$8.5 million or \$6.0 million, discounted over a 10-year period based on an airplane operating cost of \$10,000 per hour.

The net cost savings to individual operators are summarized in Table 1.

TABLE 1.—NET TEN-YEAR COST SAVINGS TO INDIVIDUAL NEW ETOPS OPERATORS

	New 2-engine operator	3 or 4-engine operator	Part 135 operator
Total Cost savings	\$10,395,000	\$19,650,000	\$9,600,000
Total Cost	106,500	3,676,100	1,030,400
Net Cost Savings	10,288,500	15,973,900	8,569,600
Present Cost savings	7,300,400	13,800,200	6,742,100
Present Cost	75,900	2,789,200	741,100
Net Present Cost Savings	7,224,500	11,011,000	6,001,000

An applicant seeking certification of a new type engine (as opposed to an applicant seeking a type certificate through an amendment of an existing type certificate or through supplemental type certificate procedures) for ETOPS eligibility would realize cost savings under proposed 33.200(f). Proposed 33.200(f) would allow the applicant to interrupt the 3000 cycle engine test required by 33.200(c) to show compliance with the existing initial maintenance inspection (IMI) test and inspection required by sections 33.90(a–b). The applicant would then resume the ETOPS test to complete the requirements of section 33.200. Thus the applicant for a new type design engine would only have to provide one engine to complete the existing IMI test and inspection and the 3,000-cycle test of the proposed section 33.200(f) rather

than 2 engines. The 3,000-cycle test is estimated in the Cost section to cost \$6.5 million or \$6.1 million, discounted. The FAA requests comments and data addressing this issue.

Manufacturers of business airplanes do not have direct offsetting cost savings. These manufacturers would only voluntarily incur these costs after making a business decision that they could recoup their costs by the sale of airplanes capable of operating beyond 180-minutes ETOPS. The substantial net cost savings that could be achieved by a part 135 operator operating beyond 180-minutes ETOPS would aid the market demand for such airplanes by business airplane operators.

The total cost savings to operators are estimated at \$1.09 billion over a ten-year period or \$762.3 million, discounted as shown in Table 2. These

savings are based on the following assumptions:

- There are currently 3 2-engine operators flying beyond 180 minutes on an exception basis. It is assumed they will routinely fly 231 hours each beyond 180 minutes.
- There are currently 7 “low cost” passenger carriers (AirTran, America West, ATA, Frontier, JetBlue, Southwest, and Spirit as defined by the *Aviation Daily*). It is assumed each would operate 4 ETOPS airplanes on a single route.
- There are currently 13 U.S. operators of 3- or 4-engine aircraft and it is assumed each would operate 1 route beyond 180 minutes.
- There are 81 Part 135 operators that both meet the proposed aircraft and maintenance requirements and each would save 96 hours annually.

TABLE 2.—TEN-YEAR COST SAVINGS TO OPERATORS

Cost-savings to—	Cost savings	Present value
3 Existing 2-engine Operators	\$31,185,000	\$21,901,225
7 New 2-engine Operators	72,054,500	50,596,140