The second method involved individually examining those air carriers that this provision affects. The FAA was able to identify those operators that conduct extended overwater operations with 10-to-30-seat airplanes. In every case, the airplanes involved were 10-to-19-seat types. Since the FAA is projecting only a modest increase in such airplanes through 1997 and an overall decline in 10-to-19-seat airplanes after 1997, it is highly unlikely that these operators will seek to increase their fleet size with a new airplane make and model currently not in its fleet that will require a ditching evacuation demonstration. Therefore, there will be no cost.

Both the operator and the FAA incur labor costs to complete a ditching demonstration. The actual demonstration takes about one hour to complete and requires two sets of crews. If an operator should need to conduct a ditching demonstration, the FAA estimates the cost for a 10-to-19 seat airplane at \$1,025 per demonstration.

Section 121.309—Medical Kits. This section will require affected commuters to have one medical kit on each 20-to-30-seat airplane for those operators. The FAA has decided to except 10-to-19-seat airplanes from this requirement due to their smaller size and the unlikelihood that a medical professional will be on board or a flight attendant to administer the use of the kit.

The FAA estimates that the 15-year cost for providing medical kits on the 20-to-30-seat airplanes operating under part 135 will be \$1.11 million (\$674,300, present value). The costs of providing medical kits are composed of acquisition (\$200 each) with a 60 percent spares reserve, installation, annual replacement (5 percent), annual maintenance (\$20 per kit), a weight penalty (7 pounds per unit), physician consultation expenses (\$500 per consultation), engineering and administrative costs, and record keeping (1 hour each time a kit is used at \$20.58 per hour).

Acquisition, replacement, and maintenance costs for kits are a function of the number of airplanes. In the first year of the rule, the bulk of the medical kits will be purchased; 443 kits will be needed for 277 airplanes, which takes into account the 60 percent spares reserve. Additional kits are purchased in the future as the airplane fleet increases to 556 airplanes in 2010, and to take into account a 5 percent annual replacement rate. Maintenance costs are calculated based on the number of units that were in use the previous year. The annual maintenance cost equals \$8,860 (\$20 per kit×443 kits) for all kits (active and spares) in 1997.

Historical data on part 121 airplanes shows one medical emergency for every 124,647 passenger enplanements. The FAA assumes that the medical emergency rate is the same on 20-to-30seat airplanes since all air carriers serve the same base population. The FAA estimates 70 medical emergencies in 1996 and 77 medical emergencies in 1997. A physician consultation will be required twice a year per air carrier to obtain certain contents, such as prescription drugs, for the medical kits at a cost of \$500 per consultation. In 1996, for the 20 projected air carriers, total consultations will total \$20,000. Record keeping will be needed per medical emergency; it will take one hour to write up each emergency. At \$20.58 per hour, in 1996, record keeping costs will total \$1,433.

In the NPRM, the FAA assumed that the medical kits could be secured and installed with industrial strength Velcro tape. The FAA still believes that securing these kits with Velcro (a low cost option, at \$20 per kit plus two hours for a Maintenance worker at \$20.58 per hour) will meet the 18–G requirement. Also, airplane manufacturers will need to spend \$1,500 for each make and model to account for the design and administrative costs involved with securing these kits and to comply with FAA regulations; with 8 makes and models, this totals \$12,000. This cost will be spread across the entire population of each make and model.

Section 121.309—First Aid Kit. This section will require 10-to-19-seat airplanes to have at least one first aid kit. Currently, part 135 requires all airplanes with greater than 19 seats to have one kit, but there is no requirement for airplanes with 10 to 19 seats to have a kit.

The 15-year cost of this requirement will be \$371,400 (\$267,400, present value). The costs of providing first aid kits are composed of acquisition (\$70 each based on industry survey) with a 35 percent spares reserve, installation, annual replacement rate (5 percent of total), a weight penalty (4 pounds), engineering and administrative costs, and annual maintenance (\$7 per kit). Costs are a function of the 10-to-19-seat airplane count, which ranges from 673 in 1996 to 543 in 2010.

Section 121.309—Halon Fire Extinguisher. This section will require commuter operators of 10-to-30-seat airplanes to replace existing or install fire extinguishers (2 per 10-to-30-seat airplane (one in cabin and one in cockpit) with halon fire extinguishers. For this analysis, the FAA assumes that no part 135 airplanes are currently equipped with halon fire extinguishers. Since part 135 airplanes are already equipped with fire extinguishers prior to complying with part 121 standards, there will be no additional maintenance costs or weight penalties for this equipment.

The 15-year cost of this requirement is \$442,900 (\$346,500, present value). The cost of this provision will involve purchasing the requisite number of halon fire extinguishers per airplane in 1996, a 13 percent spares reserve ratio, and a 5 percent recharge rate per year after 1996, and up-front administrative costs.

Section 121.549—Flashlight. This section will require commuter operators of 20-to-30-seat airplanes to acquire two additional portable flashlights for use by the flight attendant and the copilot. This section will also require 10-to-19-seat airplanes to acquire one additional portable flashlight for use by the copilot. The analysis assumes that no part 135 airplanes with 10-to-30 seats are equipped with portable flashlights. Based on a recent survey, a portable flashlight costs \$5 and 2 D alkaline battery cells cost \$2.25.

The 15-year cost of this requirement will be \$134,400 (\$82,000, present value) broken out between \$56,500 for 10-to-19-seat airplanes and \$77,900 for 20-to-30-seat airplanes. The cost of this provision will involve purchasing the requisite number of flashlights for airplanes in 1996 and for airplanes added to the fleet through 2010, 10 percent spares, 5 percent replacement rate for every year after 1996, and a weight penalty (1 pound per flashlight). The analysis also assumes that all batteries will be replaced each year.

Section 121.313—Cockpit Key. This section will require all required crewmembers of affected operators to have access to a key for the locking cockpit door. This lock and key requirement will provide additional security for equipment and instruments in the cockpit. This requirement only applies to 20-to-30-seat airplanes. Airplanes with 10 to 19 seats are not required to have locking cockpit doors and will not be affected by this requirement. The rule will require 20-to-30-seat airplanes to retrofit the cockpit door with a lock and copy a key (\$1 per key). If an airplane does not have a lock, then the operators will be required to install one.

The 15-year cost is \$102,900 (\$78,500, present value). The highest yearly cost (\$51,245) will occur in 1996 when all of the 277 20-to-30-seat airplanes will have their cockpit doors retrofitted with locks