



Federal Emergency Management Agency

Washington, D.C. 20472

Appendix to FEMA Schedule of Equipment Rates: Aircraft Rates

The rates for helicopters and airplanes have not been included in the FEMA Schedule of Equipment Rates because the procedures for developing aircraft rates are different from procedures for other equipment. The procedure for helicopters and airplanes is given below, along with examples.

Components of Aircraft Rates

The components required for developing an aircraft rate include:

- the year the equipment was purchased by the applicant;
- the purchase price at that time, including any cost to make the equipment operational;
- the average hours of operation for the last three non-disaster years; and
- the shaft horsepower for continuous operation (this is not the takeoff horsepower).

Ownership

To obtain the yearly depreciation, divide the purchase price of the equipment, including any cost to make the equipment operational, by 15 years. This is an industry standard. Occasionally, an applicant will obtain equipment for \$0 and in such a case the depreciation would be, \$0. If a cost was incurred to make the equipment operational, depreciation would be based on that cost.

The next step is to determine overhead costs. These costs are determined by multiplying the depreciation by 25 percent. Overhead and depreciation should then be added. The average three-year usage for non-disaster years should then be determined. If this usage is not available, use 1200 hours.

To determine the ownership cost, divide the sum of depreciation and overhead by the three-year average hours of operation to obtain the hourly cost. Overhead of \$0.02 per horsepower (minimum of \$4.00) should be included for equipment over 15 years or equipment obtained at no cost.

Operational Costs

For the operation and maintenance cost, multiply the horsepower by \$0.50 to obtain the operational costs.

Equipment Rate

The combination of the ownership and operational costs is the equipment rate.

Examples

The following examples illustrate this procedure.

Example 1

Aircraft data:

1990 Cost = \$150,000
 Shaft Horsepower = 200 hp
 Average 3-year operation = 600 hours

Ownership:

Depreciation	\$150,000/15 years	= \$10,000
Overhead	25% x \$10,060	= \$ 2,500
		Total = \$12,500

\$12,500/600 hours = \$21 (rounded)

Operational:

200 hp x \$0.50 = \$100

Total rate (ownership + operational) = \$121

Example 2

Aircraft data:

1980 Cost = \$150,000
 Shaft Horsepower = 300 hp
 Average 3-year operation = 600 hours

Ownership:

Depreciation		= \$0
Overhead	\$0.02 x 300	= \$6
		Total = \$6

Operational:

300 hp x \$0.50 = \$150.00

Total rate (ownership + operational) = \$156

Example 3**Aircraft data:**

1985 cost = \$0

Cost to make equipment operational = \$30,000

Shaft horsepower = 400 hp

Average 3-year operation is unknown

Ownership:

Depreciation $\$30,000/15 = \2000

Overhead $25\% \times \$2000 = \500

Use minimum of \$4 for overhead, since overhead \$500/1200 hours would be less than \$4.00.
Calculate depreciation separately.

Depreciation $\$2000/1200 \text{ hours} = \2

Overhead $= \$4$

Total $= \$6$

Operational:

400 hp x \$0.50 = \$200.00

Total rate (ownership + operational) = \$206