



NATIONAL SCIENCE FOUNDATION

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Division of Atmospheric Sciences

March 19, 1998

Dr. Robert Serafin
Director
National Center
for Atmospheric Research
P.O. Box 3000
Boulder, CO 80307-3000

Dear Bob:

This letter provides new guidelines for handling the Aircraft Maintenance Rate (AMR). As a result of several meetings with the NCAR staff and considering the AMR impact on the Deployment Pool funding, it has become necessary to reconsider how AMR charges are allocated. Based on information and discussions with Dave Carlson it is clear that most of the maintenance costs required for the NSF aircraft are known. Thus, the majority of maintenance costs should be considered as fixed and be reflected in the annual ATD base budget. There are additional maintenance requirements resulting from actual flight hours and are appropriately variable charges within the Deployment Pool. Therefore, enclosure (1) sets forth the new AMR rates for the Electra and C-130 aircraft and amounts to be applied to the ATD base and Deployment Pool calculations.

The following conditions of this new AMR agreement **apply**:

- 1) The \$566K will be allocated to ATD's base in FY 1999.
- 2) Since there is a need to establish the FY 1998 divisional base for ATD, the final FY 1998 program plan will provide the reference budget for ATD. Beginning in FY 1999, ATD will maintain turboprop aircraft within the divisional base program and future changes in the AMR rate are expected to be small (inflationary).
- 3)

- 4) Future ATD budgets (FY 1999 and beyond), will be established on programmatic basis and will not consider the FY 1999 adjustment.. The
- 5) new AMR rate will be used to calculate deployment costs starting with the FY 1999 deployment. These allocations will be made at the ,spring 1998 meeting of the OFAP and be used thereafter.

Sincerely,



**Cliff Jacobs
Program Official**

Copy to:

Richard Greenfield, ATM
Jarvis Moyers, ATM
Kenneth Van Sickle, ATM
Walt Dabberdt, NCAR
Dave Carlson, NCAR

NCAR/ATD Aircraft Maintenance Rate (AMR)

Annual AMR will consist of both **fixed** and variable costs that must be calculated for each aircraft. Fixed annual costs will be accounted for in the NCAR/ATD base funding. Variable costs are closely related to actual hours of flying (estimated at 200 flt-hrs per year for each aircraft).

1. Annual Fixed Costs-(NCAR/ATD Base)

C-130 = \$340K

Electra =

\$349K

Total \$689K

Total required = \$839K (\$689K + S I SOK (annual set aside for major engine repair/replacement and emergency major airframe repairs)].

Fixed maintenance costs include: maintenance salaries, quarterly and 4 to 5 year inspections, parts and supplies, planned rebuilds, replacement parts, and outside contract support.

2. Annual Variable Costs (Deployment Pool)

C-130 = \$68K/200 flt-hrs = \$340.00 per flt-hr

Electra = \$71K/200 flt-hrs = \$355.00 per flt-hr

Total \$139K/400 flt-hrs recovered per year based on average number of flt-hrs

Variable maintenance costs include: maintenance salaries, repairs and parts due to actual flight hours resulting in additional maintenance requirements.

Assumptions

- (1) The fixed maintenance rate includes set aside for replacement or major overhaul of turboprop engines or emergency airframe repairs.
- (2) NCAR/ATD already has a total of \$273K (S I 23K + S I 50K) in base funding for routine maintenance and engine overhaul/emergencies set aside.
- (3) NSF must augment NCAR/ATD annual base funding by \$566K (\$839K - \$273K).
- (4) Variable costs are recovered from flight hours flown with deployment pool funds.

Full Cost Recovery Charges (Non-NSF Sponsored Requests)

Aircraft Fixed + Lon-g term/flt-day-yr Factor Daily Charge Variable Charge
C-130 - (\$340K + \$75K)/260 days X (F) = \$1,277-1915 per day + \$340.00 per flt-hr
Electra- (\$349K+\$75K)/260days X (F)=\$1,305-1957 per day+\$355.00per flt-hr

Where F can vary between 0.8 and 1.2 depending on user type.