



**HUGHES
SERVICE INFORMATION
LETTER**

LETTER NO. HL-12
DATE Oct. 12, 1971
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TO—All owners and operators of Hughes Helicopters

SUBJECT: CARE AND FEEDING OF NICKEL-CADMIUM BATTERIES

MODELS AFFECTED: All 369H Series Helicopters

Reference

500 Series - Basic Handbook of Maintenance Instructions, Revised 1 June 1971

Field Service Representatives have reported a number of malfunctions experienced by operators connected with the Ni-Cad battery. A review of the reports indicates that the primary causes of the problems are due to the lack of understanding of the operating principles and requirements of the battery. The long association and experience gained with lead-acid batteries cannot be applied to the maintenance of Ni-Cad batteries. A point in fact is that the use of equipment previously used on lead-acid batteries, or the storing of a Ni-Cad battery immediately adjacent to a lead-acid battery, can cause complete failure of the Ni-Cad battery.

The primary causes of Ni-Cad battery malfunctions are:

- . Lack of a preventative maintenance program which includes inspection and cleaning.
- . Failure to properly service the battery.
- . Failure in monitoring and maintaining the aircraft generator and voltage regulation system to the correct output (27.8 to 28.0 V for the Hughes 500 helicopter).
- . Failure to perform reconditioning or deep cycling procedures.

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The helicopter electrical system must be maintained in accordance with the Handbook of Maintenance Instructions; likewise, the battery manufacturer's maintenance instruction manual must be followed to obtain maximum service from the battery. A copy of the battery maintenance instructions is furnished with all new helicopters. If instructions are not available, the battery representative should be contacted and a copy procured.

Your Hughes Service Center or Distributor is equipped to provide information and service, and should also be contacted.



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