SUBJECT: CLN AIRCRAFT NICKEL-CADMIUM BATTERIES OVERHEATING

1. REVIEW OF ATNG PRELIMINARY REPORT OF AIRCRAFT MISHAP (PRAM) DATA
REVEALS AN INCREASING NUMBER OF PRECAUTIONARY LANDINGS DUE TO OVER-
HEATING OF NICKEL-CADMIUM BATTERIES, PRIMARILY WITH UH-1 SERIES AIR-
CRAFT; HOWEVER, OTHER ARNG AIRCRAFT MAY ALSO BE AFFECTED.
2. AVIATORS SHOULD BE ALERT FOR INDICATIONS OF BATTERY OVERHEATING -
NORMALLY, THE FIRST INDICATION WILL BE A HIGH LOAD METER READING
(APPROX 5V), FOLLOWED BY SMOKE AND FUMES FROM THE BATTERY COMPART-
MENT; DELAY IN TURNING OFF THE BATTERY SWITCH MAY RESULT IN BOIL-OVER
OF BATTERY FLUID AND/OR EXPLOSION OF THE BATTERY; PILOTS CAN HELP
PREVENT THIS CONDITION BY USING AN AUXILIARY POWER UNIT FOR STARTING
THE ACFT WHENEVER POSSIBLE.
3. MAINTENANCE PERSONNEL SHOULD INSURE COMPLIANCE WITH THE FOLLOWING:
   A. REQUIRED PERIODIC VOLTAGE REGULATOR INSPECTIONS ARE PERFORMED
   B. BATTERIES ARE SERVICED IN THE BATTERY SHOP - NOT IN THE ACFT.

PAGE 2 RULNNAC3181 UNCLAS
IAW PROCEDURES ESTABLISHED IN TM 11-6140-203-5-2.

C. EXCESSIVE DRAIN ON BATTERIES SHOULD BE AVOIDED BY UTILIZING
   AUXILIARY POWER UNITS WHENEVER POSSIBLE FOR STARTING AND TROUBLE
   SHOOTING.

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RUWFFA//ODAARVCOM ST LOUIS MO//DRAV-POS/
RUDDGO//ODDRCOM REDSTONE ARSENAL AL//DSRM-MA/
RUCJAF//ODARCOM ROCK ISLAND IL//DREY-MA/
RUJJHA//ODAAC FT HuACHUCA AZ//CG-LJG/
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THIS MESSAGE HAS NOT BEEN TRANSMITTED TO UNITS SUBORDINATE TO
ADDRESSES, ADDRESSES SHOULD RETRANSMIT THIS MESSAGE TO ALL SUB-
ORDINATE UNITS, ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED;
THE RETRANSMITTAL SHALL REFERENCE THIS MESSAGE;

5. MAINTENANCE OF AIRCRAFT NICKEL-Cadmium BATTERIES
1. THERE HAS BEEN A PROLIFERATION OF REFLEX CHARGERS IN THE
MILITARY TO MEET URGENT NICKEL-Cadmium BATTERY MAINTENANCE RE-
QUIREMENTS; NUMEROUS QUERIES HAVE BEEN RECEIVED REGARDING THE
NEED FOR PERFORMING THE CELL BALANCING AND DEEP DISCHARGE WHEN
CHARGING BATTERIES USING THE REFLEX CHARGER.

PAGE 2 RULNNAC4861 UNCLASS
2. COMPLETE ELIMINATION OF CELL UNBALANCE BY USE OF THE REFLEX
CHARGER HAS NOT BEEN SUBSTANTIATED; IT IS MANDATORY THAT ALL AIR-
CRAFT NICKEL-Cadmium BATTERIES BE MAINTAINED EVERY 100 FLIGHT-HOURS
IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN TM 11-6143-203-15-27;
OR INCLUDING ELECTRICAL LEAKAGE, DEEP DISCHARGE AND CELL BALANCING
AND CAPACITY CHECK, FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT
IN PREMATURE BATTERY FAILURES, THERMAL RUNAWAY AND POSSIBLE SAFETY-
IN-FLIGHT PROBLEMS DUE TO EXCESSIVE HEAT AND EVENTUAL BATT-
ERY DESTRUCTION,

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