AIR FORCE STANDARDS FOR NICKEL HYDROGEN BATTERY

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AF NICKEL HYDROGEN STANDARDIZATION GOALS

- PROMOTE INTERCHANGEABILITY
  - AMONG VENDOR PRODUCTS
  - BETWEEN PROGRAMS
- INCREASE RELIABILITY
  - DESIGN AND PROCESS STABILITY
  - UNIFORM DATA BASE
  - APPROPRIATE HANDLING AND STORAGE
- PERMIT INNOVATIONS AND IMPROVEMENTS
- REDUCE LIFE CYCLE COST

AF NICKEL HYDROGEN STANDARDIZATION PHILOSOPHY

- CONCENTRATE ON STANDARDIZATION AT CELL LEVEL
  - INTERCHANGEABILITY AND RELIABILITY ISSUES ARE MORE IMPORTANT AT THE CELL LEVEL
  - BATTERY DESIGN OFTEN HIGHLY INTEGRATED WITH SPECIFIC POWER SYSTEM AND SPACECRAFT DESIGNS
- CELL LEVEL STANDARDIZATION IS BASICALLY FORM/FIT/FUNCTION TYPE
  - ALLOWS IMPROVEMENT OF INTERNAL DESIGNS
  - INCLUDES STANDARDIZATION OF TESTS, STORAGE, AND HANDLING
- BATTERY LEVEL STANDARDIZATION INCLUDES INTERFACES, TESTS, STORAGE, AND HANDLING

AF NICKEL HYDROGEN STANDARDIZATION PROJECT OUTLINE

- SURVEY AF PROGRAMS TO DETERMINE BATTERY USAGES AND NEEDS
- REVIEW PREVIOUS SPACECRAFT BATTERY STANDARDS
- DEFINE STANDARDIZATION AT CELL LEVEL
- DEFINE STANDARDIZATION AT BATTERY LEVEL
- DISTRIBUTE TO SPACE BATTERY COMMUNITY FOR REVIEW
- INCORPORATE INPUTS INTO STANDARDS

AF NICKEL HYDROGEN STANDARDIZATION
CELL LEVEL STANDARDIZATION

- CAPACITY, SIZE, WEIGHT
- INTERFACES
- PERFORMANCE REQUIREMENTS
- CORE ACCEPTANCE TESTS
- MANUFACTURING PROCESS CONTROL
- GENERIC QUALIFICATION TESTS
- STORAGE AND HANDLING REQUIREMENTS

AF NICKEL HYDROGEN STANDARDIZATION BATTERY LEVEL STANDARDIZATION

- INTERFACES
- CORE ACCEPTANCE TESTS
- GENERIC QUALIFICATION TESTS
- STORAGE AND HANDLING REQUIREMENTS

AF NICKEL HYDROGEN STANDARDIZATION SCHEDULE

COMPLETE INTERNAL DRAFT	FEBRUARY 1994
DISTRIBUTE FOR EXTERNAL REVIEW	MARCH 1994
INPUTS FROM REVIEW	JUNE 1994
COMPLETE FINAL DRAFT	SEPTEMBER 1994

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