PRODUCT ASSURANCE TARGETED TO MEET MISSION OBJECTIVES

- DEMONSTRATED CAPABILITY FOR:
  - HIGH PROBABILITY OF SUCCESS
  - PAYLOAD CUSTOMER CONFIDENCE

![Diagram showing the relationship between product assurance level of effort and system reliability. The graph indicates that as system reliability increases, the cost effective objective also increases.]
PRODUCT ASSURANCE BASED ON "VALUE ADDED" STRATEGIC APPROACH

PRODUCT ASSURANCE TOOLS AND SUPPORT

- RELIABILITY BLOCK DIAGRAM ANALYSIS
- EVALUATION OF PROBABILITY OF SUCCESS
- SELECTIVE REDUNDANCY RECOMMENDATIONS
- DESIGN EVALUATION
- MTBF REVIEW
- FAILURE HISTORY AND TRENDEDING
- OFF-THE -SHELF VENDOR MATRICES
- MANUFACTURING PROCESS CONTROL
- CERTIFICATION TEST REVIEW
- INSPECTION ADEQUACY

PROJECT GOALS

- DEMONSTRATED PROBABILITY OF SUCCESS
- HARDWARE OPTIMIZATION
- COST AND SCHEDULE EFFICIENCY

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Safety, Reliability, and Quality Assurance Office
PRODUCT ASSURANCE STRUCTURED FOR OPTIMAL PAYBACK

TASKS:
- CONTINUED SUPPORT OF ENGINEERING STUDY GROUP
- RELIABILITY ANALYSIS FOR CHOSEN EQUIPMENT
  - RELIABILITY BLOCK DIAGRAM ANALYSIS (RBDA) - MODELING TO VERIFY SYSTEM PERFORMANCE
- FAULT TOLERANCE ANALYSIS
- MTBF VERIFICATION
- FAILURE HISTORY REVIEW
- RELIABILITY IMPROVEMENT RECOMMENDATIONS
- VENDOR REVIEW
- ASSURING GOOD PROCESS CONTROLS
- TEST COMPARISON MATRIX
- SYSTEM INTEGRATION SUPPORT
  - RBDA - MODELING TO VERIFY INTEGRATED PERFORMANCE
  - SUPPORT IN DEVELOPMENT OF INTEGRATED TEST PLANS

GOAL: OPTIMAL PERFORMANCE AND RELIABILITY WITH COST AND SCHEDULE EFFICIENCY