PRODUCT ASSURANCE TARGETED TO MEET MISSION OBJECTIVES

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

PRODUCT ASSURANCE LEVEL OF EFFORT

COST EFFECTIVE OBJECTIVE

SYSTEM RELIABILITY

Diane McLaughlin/NB23/x34089
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 TRENDING
- 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
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