



GMSR Report

November 1989

**NASA PERSONNEL/PAYROLL SYSTEM (NPPS) BUDGET
SITUATION**

STATUS

- DEVELOPMENT PROBLEMS HAVE CAUSED:
 - COST OVERRUN OF \$1.2M
 - SCHEDULE STRETCHOUT OF 8 MONTHS
- DEVELOPMENT OVERRUN
 - WILL BE FUNDED FROM NPPS MAINTENANCE FUNDS NO LONGER REQUIRED DUE TO SCHEDULE SLIP
 - HAS NOT IMPACTED OTHER AIM PROJECT FUNDING IN FY 1990

CONCERNS

- FUNDING LEVEL UNKNOWN FOR FY 1990
- CAPPs PROJECT REMAINS SUSPENDED
- FUNDING DELAYS/INTERVENTIONS CONTINUE TO SAP INORDINATE AMOUNTS OF ENERGY

PLANS

- CONTINUE IMPLEMENTATION OF JSC CORRECTIVE ACTION PLAN
- EVALUATE AIM PROGRAM ASSESSMENT BOARD RECOMMENDATIONS

**NASA PERSONNEL/PAYROLL SYSTEM (NPPS)
BUDGET SITUATION**
(DOLLARS IN THOUSANDS)

	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91	DEVELOPMENT/ CONVERSION TOTALS
ORIGINAL PLAN							
NPPS							
DEVELOPMENT	\$1,500	\$2,000	\$1,300	\$800	—	—	\$5,600
CENTER CONVERSION	—	—	\$1,200	\$1,200	—	—	\$2,400
MAINTENANCE	—	—	—	—	\$1,000	\$1,000	—
CAPPs							
DEVELOPMENT	—	—	—	—	\$1,000	\$1,000	\$2,000
							\$10,000
AMOUNTS RECEIVED	\$1,500	\$2,000	\$1,247 ¹	\$2,000	\$1,000 ²	\$1,000 ²	\$8,747 ³
CURRENT PLAN^{4,5}							
NPPS							
DEVELOPMENT	\$1,400	\$1,700	\$747	\$2,064	\$679	—	\$6,590 ^{APA}
CENTER CONVERSION	—	\$300	—	\$522	\$1,000	—	\$1,822
MAINTENANCE	—	—	—	—	\$321	\$1,400	—
CAPPs							
DEVELOPMENT	\$100	—	\$300	\$300	—	\$1,000	\$1,700
							\$10,112

1 \$1,253 DIVERTED IN FY 88
2 ESTIMATED
3 SHORTFALL PROVIDED FROM CODE NT BUDGET

4 ACTUALS THROUGH FY 89
5 ASSUME \$679 DIVERTED IN FY 90 IS RECOVERED

NRP AT KSC

BACKGROUND

- ORIGINAL COST ESTIMATES FOR FY89 WERE UNDERESTIMATED:
 - SOME OF ORIGINAL COFF COSTS WERE CARRIED AS R&PM
 - UNABLE TO USE EXISTING EMERGENCY POWER SUBSTATION AS ORIGINALLY PLANNED
 - PRELIMINARY ENGINEERING REPORT (JUNE 9, 1989) REFLECTS INCREASED CCTV LIGHTING LEVEL REQUIREMENT
 - INSTALLATION OF FENCING, GUARD HOUSES AND PERIMETER LIGHTING FOR PAD "A" NOT IN BUDGET WRITE-UPS

CURRENT STATUS

- FY89 & FY90 COFF FUNDING (\$4.2M) APPEARS SUFFICIENT FOR PADS "A" & "B"
 - HQ/KSC MEETING (SEPTEMBER 28, 1989) DESIGNATED PADS AS PRIORITY
- DESIGN PHASE OF IMPLEMENTATION PLAN FOR PADS STARTED OCTOBER 1989
- REMAINING PROJECTS IN JEOPARDY

CONCERNS

- REMAINING PROJECTS MUST BE DEFERRED
- FUNDED PAD PROJECTS IN JEOPARDY FROM FY90 COFF BUDGET REDUCTIONS

PLANS

- KSC HAS SUBMITTED A FY92 COFF PROJECT FOR BALANCE OF THE WORK

**SPACE PHYSICS ANALYSIS NETWORK (SPAN)
WORM INCIDENT**

BACKGROUND ON SPAN

- CREATED IN 1981 FOR OPEN EXCHANGE OF SCIENTIFIC INFORMATION BY RESEARCHERS
- COMPOSED OF INTERNATIONAL NETWORK OF APPROXIMATELY 6,000 NODES SERVING APPROXIMATELY 100,000 USERS:
 - GOVERNMENT (APPROXIMATELY 600 NASA MANAGED)
 - PRIVATE INDUSTRY
 - UNIVERSITY
- CAN BE ACCESSED FROM ALMOST ANYWHERE IN WORLD USING A PERSONAL COMPUTER AND TELEPHONE

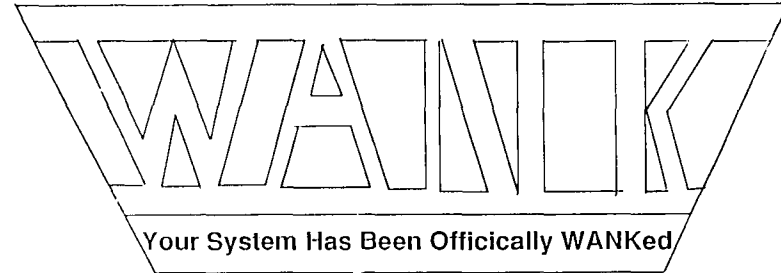
**SPACE PHYSICS ANALYSIS NETWORK (SPAN)
WORM INCIDENT**

DESCRIPTION OF ATTACK

- ORIGIN TRACED TO FRANCE
- WORM CODE:
 - EXPLOITS POOR PASSWORD MANAGEMENT PRACTICES
 - NASA VICTIMS FAILED TO FOLLOW PUBLISHED AGENCY POLICIES AND PROCEDURES
 - CAUSES
 - DISRUPTION AND DENIAL OF SERVICE
 - EXPENDITURE OF RESOURCES TO TECHNICALLY DIAGNOSE AND DISINFECT AFFECTED SYSTEMS
 - DISPLAY OF BANNER ON USER SCREENS
- TWO PHASED ATTACK
 - OCT 16 ATTACK AFFECTED APPROXIMATELY 90 NODES
 - OCT 29 ATTACK AFFECTED OVER 500 NODES
 - USED IMPROVED VERSION TO EXPLOIT ADDITIONAL PASSWORDS
- SPECIFIC IDENTIFICATION OF PENETRATED NODES UNDERWAY
 - ONLY 3 IDENTIFIED AT NASA TO DATE
- ATTACK IS STILL ACTIVE

**SPACE PHYSICS ANALYSIS NETWORK (SPAN)
WORM INCIDENT**

WORMS AGAINST NUCLEAR KILLERS



**SPACE PHYSICS ANALYSIS NETWORK (SPAN)
WORM INCIDENT**

EFFORTS TO REDUCE FUTURE RISK EXPOSURE

- INSTRUCTIONS BEING REISSUED TO ALL NODE MANAGERS TO STRENGTHEN PASSWORD MANAGEMENT PRACTICES
- SELECTED NETWORK NODES (NASA AND NON-NASA) WILL BE AUDITED TO ASSURE COMPLIANCE WITH PASSWORD MANAGEMENT INSTRUCTIONS
- NASA/IG AND FBI ARE INVESTIGATING FOR PROSECUTION

HOWEVER

- OPEN INTERNATIONAL NETWORKS WILL ALWAYS HAVE A CERTAIN LEVEL OF VULNERABILITY

FY 1990-1992
COMMITMENT/TARGET

ACTION PLAN/
TARGET/DATE

- | | |
|--|--|
| <ul style="list-style-type: none"> • ESTABLISH OFFICE OF MANAGEMENT EQUALITY CIRCLE | <p>FIRST MEETING SCHEDULED
DECEMBER 5, 1989</p> |
| <ul style="list-style-type: none"> • SEPERATE EQUAL OPPORTUNITY AND MULTI-CULTURAL EDUCATION PROGRAM TRAINING FOR ALL EMPLOYEES | <p>HAVE REQUESTED PROGRAM
DEVELOPMENT DISCUSSIONS WITH
CODE DP TO START BY EARLY
DECEMBER 1989</p> |
| <ul style="list-style-type: none"> • AVERAGE 1 PROFESSIONAL DEVELOPMENT TRAINING INCIDENT PER EMPLOYEE PER YEAR | |
| <ul style="list-style-type: none"> • DEVELOP CAREER COMPETENCY DEVELOPMENT PROGRAM PILOT PROJECT | <p>DEVELOP PROACTIVE CODE N
STRATEGY FOR MINORITY
RECRUITMENT BY JANUA Y 31, 1990</p> |
| <ul style="list-style-type: none"> • MEET OR EXCEED 20% MINORITY MALE AND FEMALE PROFESSIONAL WORKFORCE (FTE, CO-OP, AND PMI) REPRESENTATION GOAL ESTABLISHED AS A RESULT OF THE MEAN AGREEMENT | |
| <ul style="list-style-type: none"> • INCREASE NUMBER OF MINORITY FEMALE EMPLOYEES AT OR ABOVE GS-14 FROM 0 TO 3 | |