

FIRESCOPE DATA PROCESSING

History, Development and Future

AUGUST 1980

It was recognized in 1974, during the research design phase, that various FIRESCOPE products would require data processing capabilities to be fully effective. The following is a documentation of the history of the development of the data processing program and a projection of future developments.

Jun 1978 - Decision by Board of Directors to proceed with FIRESCOPE data processing & equipment.

Sept. 1978- Briefing made to ADP Council in Washington D.C.

Oct. 1978- FIRESCOPE Program Office Computer Manager was put on board.

Oct. 1978- Apr. 1979- Requirement package development for hardware procurement and technical needs including review by Regional Office and Washington Office.

Apr. 1979- Briefing made to Chiefs Office and U.S.D.A.

Apr.-May, 1979- Development of hardware evaluation criteria and forms.

May 1979- Approval recieved for purchase.

June 1979- AFOS hardware installed at OCC.

July 1979- A market survey was conducted utilizing evaluation criteria.

- Computer Analyst brought on board under G.S.A. contract.

Aug. 1979- Hardware advertised in Commerce Business Daily.

- Computer Operator brought on board under G.S.A. contract.

Sept. 1979- Contract for minicomputer awarded to Prime.

- Computer Programmer brought on board under G.S.A. contract.

Dec. 1979- Prime minicomputer delivered.

Jan.-Feb. 1980- Minicomputer installed.

Feb. 1980- Minicomputer up and operational.

March 1980- Second Computer Programmer brought on board under G.S.A. contract.

Aug. 1980- Second Computer Operator brought on board under G.S.A. contract.

The following software packages were developed and made operational for field use from Feb. to Aug., 1980.

IDENT - Current mail identifiers

WEATHER - Retrieval of current weather. Adjustment and the acquisition of new hardware was accomplished to transfer Weather information from G.E. Timeshare to minicomputer.

BROADCAST - OCC Support Service Manager broadcasts to field.

MAIL - Retrieval of your mail from other users.

SEND - Sending mail to other users.

FIREMOD - Determine fire spreads and intensities. Converted from G.E. Timeshare to minicomputer with corrections in algorithms.

INC209 - Look at current incident situations.

INCHIST - Look at all entered incident situations.

RESTAT PHASE I - Resource Status reports.

Additional administrative programs which were developed during this period included:

DOCUMENT CONTROL - Inventory and location of all FIRESCOPE documents.

HARDWARE INVENTORY - Inventory and location of FIRESCOPE hardware.

SYSTEM SOFTWARE - Use logs, backup and recovery routines, archiving processes, etc.

On going development and new programs include:

IAA - The Initial Attack Assessment model was validated on the G.E. Timeshare, copied to the Prime minicomputer and follow-up validation is continuing.

- Development of data bases (transportation, fuels, topography, weather, etc.) is needed.

WIND MODEL - The wind model has been installed in AFOS equipment.  
- Validation is needed.

AFOS - The software routines for communication from Automated Field Observation System (AFOS).

- Terrain data base is needed for interaction with National Weather Service information and FIRESCOPE wind model.

- Software programs are needed for accepting weather observation from automated stations.

LARGE FIRE PERIMETER - Needs source listing or codes developed. Also data base.

RADIO FREQUENCY MANAGEMENT -

AIRCRAFT DISP. ASSISTANCE AND TRACKING -

LINE PRODUCTION -

SPOTTING -

BRANDING -

SLOP OVER -

RESTAT PHASES II & III -

On going administrative tasks include:

1. Developing feasibility & justifications for the second computer model and plotter.
2. Develop interface routines from model 1 to model 2.
3. Telephone communication network analysis.
4. Documentation of existing applications including run books, flow charts, user documents, programs, source listings, error routines, etc.
5. Operation, maintenance and improvements to existing hardware and programs.
6. Training in use of hardware and programs.
7. Development and administration of service contracts for fuels data gathering (UCSB), topography (USGS), E.D.S. (programmers), road networks, hardware purchase and maintenance, terminals, etc.

In summary, it appears that some new records must have been set relative to the accomplishments since the go ahead was given to proceed with FIREScope data processing in June 1978. Noteworthy is the fact that authorization to purchase and contract award for hardware was accomplished within one year. In six months, following installation, 9 software programs were developed and made operational for field use. This included time necessary for the programmers and operators to become familiar with the machine language, operation and maintenance procedures, etc. of which they had no experience prior to that time.

Just as noteworthy is the fact that terminals were installed, training accomplished and 9 software programs were being utilized in less than 2 months at 20 different field locations. These 20 different locations represent all four levels of government and are responsible for Multiagency Coordination of 260 fire protection agencies in southern California.

Hopefully the accomplishments of the future will match those of the past.



IMPORTANT DOCUMENTATION

GENERAL

Program Charter (July 80 revision)  
FIREScope Decision Team and Specialist Group Charter #6 (3/80)

INCIDENT COMMAND SYSTEM

ICS Operational System Description FP 120-1 (August 80 draft)  
Field Operations Guide FP 420-1 (Jan 80)

MULTI AGENCY COORDINATION SYSTEM

FIREScope Operations Coordination Center -Detailed  
Design Requirements SDC TM 5980 (Nov. 77)  
FIREScope MACS/ICS Design Recommendations SDC TM 6036 (Feb 78)  
MACS Goals and Functions Analysis (Nov 79)

RESEARCH REPORT INVENTORY

MRC

- 1) A CONCEPTUAL DESIGN FOR THE FIRESCOPE COMMUNICATION SYSTEM.. VOL. II - APPENDICES  
MISSION RESEARCH CORP. SEPTEMBER 1975
- 2) FIRESCOPE INFORMATION MANAGEMENT SYSTEM PERFORMANCE SPECIFICATION AND  
IMPLEMENTATION PLAN NOVEMBER 3, 1977
- 3) A CONCEPTUAL DESIGN FOR THE FIRESCOPE COMMUNICATION SYSTEM VOL I  
SEPTEMBER 1975

SRI

- 1) DECISION ANALYSIS OF FIRE PROTECTION STRATEGY FOR THE SANTA MONICA MOUNTAINS:  
AN INITIAL ASSESSMENT JUNE 1973
- 2) AN ECONOMIC EVALUATION OF MULTI-AGENCY COMMUNICATION AND COORDINATION SYSTEM  
FOR SOUTHERN CALIFORNIA A PRELIMINARY ASSESSMENT  
FIRESCOPE ECONOMIC EFFECTIVENESS AEROSPACE CORPORATION
- 1) BENEFIT-COST ANALYSES VOL I JANUARY 1979
- 2) BENEFIT-COST ANALYSES APPENDICES VOL II JANUARY 1979

MRC SDC

- 1) A DISCUSSION OF FIRESCOPE SYSTEM FUNCTIONS AND ENABLING POLICIES  
DECEMBER 24, 1973
- 2) A CONCEPTUAL DEFINITION OF A WILDLAND FIRE MANAGEMENT REGIONAL COORDINATION  
SYSTEM JUNE 28, 1974
- 1) MULTI-AGENCY COORDINATION SYSTEM GOALS AND FUNCTIONS ANALYSIS ON SEPTEMBER  
INCIDENTS
- 1) FIRESCOPE MULTI AGENCY COORDINATION SYSTEM, INCIDENT COMMAND SYSTEM DESIGN  
RECOMMENDATIONS FEBRUARY 28, 1978

SDC

- 1) RECOMMENDED FIRESCOPE DOCUMENT CONTROL SYSTEM OCTOBER 31, 1975
- 2) FIRESCOPE OPERATIONS COORDINATION CENTER DETAILED DESIGN REQUIREMENTS  
NOVEMBER 15, 1977
- 3) FIRESCOPE INCIDENT COMMAND SYSTEM DOCUMENTATION REFINEMENT AND TRAINING SUPPORT  
FINAL SUMMARY REPORT - CONTRACT SEPTEMBER 12, 1977
- 4) ANALYSIS OF THE MOBILE COMMUNICATIONS UNIT CCSTAT 6 DURING THE 1976 FIRE  
SEASON JANUARY 31, 1977
- 5) ANALYSIS OF THE OCC SITUATION STATUS UNIT FOR 1976 FIRE SEASON  
FEBRUARY 15, 1977
- 6) REPORT ON THE 1974 FIRE SEASON FIRESCOPE OCC ACTIVITY MAY 1, 1975
- 7) FIRESCOPE INCIDENT COMMAND SYSTEM PERSONNEL TRAINING OCTOBER 31, 1975
- 8) FIRESCOPE OCC SITE INVENTORY OCTOBER 27, 1978
- 9) FIRESCOPE COMMUNICATION CONCEPTUAL DESIGN REQUIREMENTS VOL II ICS  
MARCH 31, 1975