

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Forest Resources

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Stanford M. Adams, Director



October 3, 1995

MEMORANDUM

TO: Bobby D. James

FROM: John Shepherd *[Signature]*

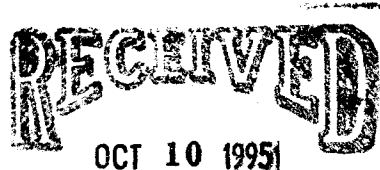
Attached is the Fish Day Fire Review that Stan and I signed.

Stan was well pleased with the format and content of the report.

Please return a copy of the review after the Regional Forester signs it.

JS/cg

cc: David Jarman
✓ Jim Sain



REGION ONE

FISH DAY FIRE REVIEW

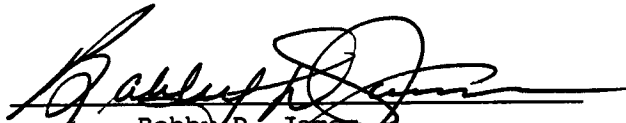
CROATAN RANGER DISTRICT

CROATAN NATIONAL FOREST

FIRE: MAY 21, 1994

REVIEW: FEBRUARY 15, 1995

PREPARED BY:


Bobby D. James

USFS Fire & Aviation

REVIEWED BY:

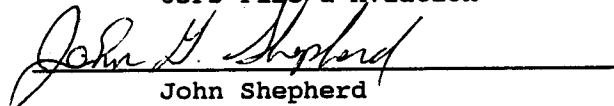

Ronald H. Coats

USFS Fire & Aviation

8-28-95

Date

REVIEWED BY:


John Shepherd
Staff Forester N.C.F.S.

9/26/95

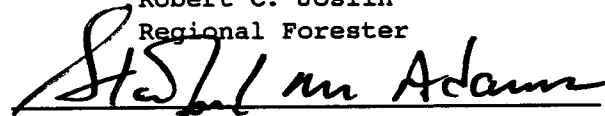
Date

APPROVED BY:

Robert C. Joslin
Regional Forester

Date

APPROVED BY:


Stanford Adams
State Forester

10/2/95

Date

I. INTRODUCTION

- A. Type of Review: Large Fire Analysis
- B. Unit Reviewed: National Forests in North Carolina
Croatan Ranger District
Fish Day Fire
May 21, 1994
- C. Review Team Members:
- | | |
|---------------|--|
| Bob James | - Team Leader
Regional Fire Operations |
| John Shepherd | - Team Leader
Senior Staff Forester
Forest Protection
N.C. Forest Service |
| David Hammond | - Deputy Forest Supervisor
Ouachita National Forest |
| Bobby Young | - Head Fire Control Division
Texas Forest Service |
| Lewis Kearney | - Fire Management Staff Officer
Cherokee National Forest |
- D. Date of Review: February 15, 1995
- E. Previous Review of Similar Kind: None
- F. Description of Review:

The review was conducted as part of the Fire and Aviation responsibility to conduct Large Fire Reviews. The Fish Day Fire met the criteria for a Regional review.

The Regional Forester appointed an Interagency review team to conduct the review on a date when the Forest Supervisor and the State Forester could be present.

During the Review, James Cherry, Assistant FMO, and Brad Jenkins, District Fire Management Officer, and Initial Attack Incident Commander, presented the events related to the Initial and Extended attack of the Fish Day Fire. Review Team members questioned involved personnel from Forest and State regarding any events that occurred during the initial and extended phases. Rex Mann, Incident Commander, and Dan Smith, Operations Chief from Regional Team, presented the events after transition to the Regional Team. Mike Maguire, Incident Commander of the Forest team that transitioned with the Regional team, presented the events after the Regional team handed the fire off to the District. Review team members asked questions of involved personnel from District, Forest and State regarding events that occurred in each stage of the fire.

II. SUMMARY OF REVIEW

A. Objectives:

1. Evaluate adherence to Fire Suppression Policy.
2. Review performance of Fire Overhead and Support personnel.
3. Review cooperation between State and Federal units.
4. Evaluate adequacy of established processes, standards and procedures.
5. Evaluate Dispatching organization.
6. Review adequacy of Radio Communication in flat land.

B. Summary of Findings:

1. Present prescribed burning program does not meet Land Management Plan objectives.
2. Air operations communication air to ground, for state dozers was inadequate.
3. Forest team left several procurement and contracting problems.
4. Structural fire protection units were not brought into the Unified Command.
5. The Croatan District lacks adequate initial attack forces within District personnel.
6. Delegation of authority came from only one agency.
7. Radio communications among cooperators needs to improve.
8. Early information flow from incident to Forest and Region was poor.
9. All available fire weather forecasting and fire behavior information was not used.
10. Two near misses.

III. COMMENDATIONS

- Cooperative relationship with Forest Service District and State District are excellent.
- Fast, effective initial attack on initial fire resulted in initial containment at 90 acres.
- Prescribed burn aided suppression effort.
- District Ranger involvement provided good interface opportunities with local people and local cooperators.
- Close coordination between North Carolina Forest Service and District from initial attack set an outstanding tone of cooperation and set the stage for a Successful Unified Command.

IV. GENERAL COMMENTS AND OBSERVATIONS

The Croatan District is in an urban interface area that will continue to present challenges in fire suppression and prescribed burning.

The fire workload is such that a buildup of National Forest personnel and equipment sufficient to meet all protection needs is not justified. The State of North Carolina is a willing and capable partner in Eastern North Carolina. They are recognized experts in pocosin fire suppression. Under the cooperative agreement currently in place and with the changes recommended, the two agencies can provide the needed protection.

Restructuring within both agencies will present challenges in meeting the fire threat. Any fire that originates on the Croatan is a threat to State protected areas. The U.S. Marine Corps has a high degree of interest in fire suppression on this unit.

V. STATEMENT OF FINDINGS AND RECOMMENDATIONS

1. Prescribed Burning Program

Problem Statement:

It was obvious from the impacts of old burns on fire activity/fire behavior that prescribed burning must play a major role in future fire management and control in the Pocosins.

Analysis: First hand reports from fire overhead and post fire photography indicates that where the main fire burned into an area that had previously been prescribed burned, the fire became manageable and the risk to personnel and equipment was dramatically reduced. While this is not an unexpected revelation, the Fish Day Fire provided a graphic demonstration of the value of an active prescribed burning program.

Recommendation for Action:

- a. Coordinate and plan an active prescribed burning program with the NCFS, Office of Emergency Services, military and community leadership. Set priorities based on land values. Use the public concern over the Fish Day incident as the door to explain and gain their support for a prescribed burning program.
- b. Look for innovative ways including challenge cost share, use of multi-financing (i.e., wildlife, fire, ecosystem management, TES) and using prescribed fire as a tool for training NCFS/USFS personnel in Pocosin fire suppression.

2. Air Support and Air Operations:

Problem Statement:

There were concerns/problems with Air Ops communications, air support for State dozers and with military aircraft entering closed air space.

Analysis: The fire review identified three major concerns with the air program on the Fish Day Incident:

- a. Communications was a major problem on this incident and air operations was no exception. When air attack took over support to NCFS dozers all communication ground to air and air to ground was lost. Dozers were operating on low band radios because of their own avionics packages. Standard NSFS unit is 2 dozers and a spotter plane. Additionally, only one helicopter was equipped with low band radio. This was really an overall communication problem that further complicated air operations.
- b. There were incidents of military aircraft intrusions into restricted air space. The District and team worked closely with the adjacent bases and it appeared that the problems were created by aircraft from distant bases.
- c. The review indicated that there was a need for a Fixed Wing Base Manager. This position was never filled.

Recommendation for Action:

- a. Take whatever steps are necessary to coordinate placement of repeaters and documented procedures to resolve the majority of the radio communication problems prior to the 1995 fire season.
- b. Work with NCFS to honor their need for their spotter planes as an integral safety feature of their dozer operations. Make contingency plans to mitigate added confusion to normal air operations. Air Ops safety must come first.
- c. USFS and NCFS District Rangers make personal, possibly in-person, contacts with all Base Commanders whose aircraft might enter restricted air space. Impress upon them the possible serious consequences if their pilots infringe on this air space.

- d. When air operations are complex enough to need a Base Manager, fill the position.

3. Procurement and Contracting:

Problem Statement:

Several areas that lacked adequate assistance in procurement and contracting surfaced.

Analysis: There was confusion and an apparent lack of communication for contracting and procurement obligations. This was stated by the District Ranger and the Croatan Support Services Supervisor. A detailer was requested to assist the District in the completion of the financial management work.

Recommendation:

Most extended period incidents on the Croatan will incur the initiation of equipment obligations. It was stated that in the State District office that there was not a good record of equipment and locations. This will tie to procurement and timekeeping. As soon as an incident begins to build, the Forest should have a person in place to assist with resources locations and with contracting.

The activation of a comptroller is at the discretion of the Forest Supervisor. It is recommended that a comptroller be used on extended period Croatan incidents and should be in place before large costs are incurred.

Before District takes incident back from management team, there should be a better understanding of financial obligations incurred by the team or prior to the team arriving. The District reacted properly by asking for help in clearing up the obligations; and the Forest should not agree to take the incident back until all financial obligations are understood. It is recommended that the Forest conduct a functional assistance trip and assist the District in any financial misunderstandings that may still be in place or that would occur on future incidents. This could be done in assisting the District in preparing an incident procurement plan.

4. Structural Protection

Problem Statement:

This fire threatened homes in the interface. The responding structural fire departments were unaware of the risk they faced and chose to operate independently of the overhead team.

Analysis: Homes which are built in the interface zones will be at great risk from large fires. Fire departments are often not aware of this risk or of the difficulty of protecting homes in direct proximity of the wildland fuels. The local fire marshal did not become a part of the team, and should this fire have reached the homes, there would have been much difficulty in coordinating structural protection.

Recommendations for Action:

- a. USFS and NCFS should identify homes at greatest risk and take steps to lessen the risk, such as clearing or prescribed burning fuels away from homes. Recommendations of the Southern Forest/Urban Interface Council should be considered in developing this plan.
- b. Both Agencies should sponsor additional training for VFD's in pocosin fuel fire behavior and tactics.
- c. The local fire marshal should be trained in ICS and become a part of the local team or at least understand the importance of being aware of the function of the overhead team.

5. Limited Resources

Problem Statement:

Inadequate initial attack personnel and units.

Analysis: The local Ranger District has only two tractor units, down from five units at one time. Downsizing has also occurred with the State crews. The result is the inability to provide initial attack on multiple fires which severely impacts their collective ability to carry out extended attack without drawing on resources from other parts of the State or out-of-State.

Recommendation for Action:

- a. Support the NFMAS process to analyze the fire resources needed on the Croatan.
- b. Support the Economic Analysis process to analyze the fire resources needed on this district of the North Carolina Forest Service.
- c. Develop the MAC group into a functioning organization which moves quickly as incidents increase.
- d. Strengthen efforts to bring in cooperators as a part of the total fire program.

6. Delegation of Authority

Problem Statement:

Since the fire was confined to National Forest land, the delegation of authority only came from the Forest Service. A plan is not in place to deal with fires moving from one jurisdiction to another.

Analysis: While the fire was confined to National Forest lands, the majority of equipment came from the State. In this situation, some confusion existed as to State's role and authority. The State Incident Commander lacked direct authority from State Regional Forester and State District Forester to carry out duties. The cooperators - USFS, NCFS, USMC and Fire Departments - do not have a clear understanding of how to change authorities when a fire moves from one agency's responsibility to that of another.

Recommendations:

- a. Provide joint delegation of authority for incident escaping initial attack. Include local Fire Chief.
- b. Develop a plan involving all concerned agencies for orderly transition of command responsibilities when incidents move from one jurisdiction to another.

7. Radio Communication

Problem Statement:

Different radio systems and the lack of interface led to misunderstanding and poor communication.

Analysis: Each agency operates on its own radio frequencies which are not compatible. The flat terrain leads to serious problem in performance of equipment. In joint operation fires the communication links are critical. Fire departments that provide structural protection are important contributors and must be brought into the net.

Recommendations:

- a. USFS, NCFS, Fire Department, U.S. Marine Corps and other cooperators develop a communication plan to meet the needs of day-to-day activities and can be expanded to meet incident needs.
- b. R.O. electronic communications work with District and Forest to solve problems.

8. Information Flow From District to Forest to Region

Problem Statement:

Early information flow from incident to Forest was almost non-existent.

Analysis: When fire was initiating, sketchy information from District to Forest led to poor planning and delays in critical permission and notification. Incident Commander was busy with fire and could not get to telephone. When large fires are in process of building timely information at all levels is a must. This allows for planning and notification of reinforcements and an orderly build-up to meet the needs of the incident.

Recommendation:

District and State set up a procedure within established channels to ensure timely information flow to Forest and State Headquarters.

9. Fire Weather

Problem Statement:

Eastern North Carolina (Croatan) is extremely difficult to provide weather forecasts due to influence of sea breezes and local influences.

Analysis: The U.S. Forest Service utilizes a NWS meteorologist as resource to the Type I team. The meteorologist is equipped with a portable weather forecasting station to observe local readings and receive raw data information from the National Weather Service office local to the fire scene. Both agencies use fire behavior analysts to provide local fire weather observations which are sent to the National Weather Service office in Raleigh for spot forecasts specific to the local fire.

Recommendations:

Provide local qualified agency fire behavior analyst when available in multi-agency fire suppression efforts. Integrate the State NWS office fire weather forecasts into incident fire weather forecast, produced by the on-site NWS meteorologist.

10. Safety

Problem Statement:

At least two near-miss incidents occurred on the Fishday Fire.

Analysis: On two occasions, a tractor plow strike team was endangered and personnel and equipment were threatened by potential burn overs. Several of the 10 Standard Fire Orders and Situations that Shout Watch Out were apparently violated. The strike team's knowledge of fire behavior and tactics allowed the strike team to escape by moving personnel and equipment into preplanned escape/safety zones.

Recommendations:

Incident Management team ensure that fire orders are provided in full detail during the shift briefing and prior to personnel and equipment are committed to suppression action. Suppression action will be written on the shift plan and discussed in detail with the suppression force responsible for initiating the action. Factor available fire weather and fire behavior information into all tactical decisions. Provide aerial lookout in direct attack fire suppression action. Provide scout plane with a qualified observer with local fire behavior experience and tactics to critical ground operations during suppression activities to maintain ground to air communications and air-to-air communications with the Air Operations. Communication links will be established via a pre-fire communications plan and these links will be continuously monitored and tested during fire suppression operations.



United States
Department of
Agriculture

Forest
Service

Southern
Region

1720 Peachtree Road, NW
Atlanta, Georgia 30367

File Code: 5130/3130

Date: AUG 29 1995

Mr. Stan Adams, State Forester
NC Div. of Forest Resources
Dept. of Environment, Health
and Natural Resources
Box 27687
Raleigh, NC 27611

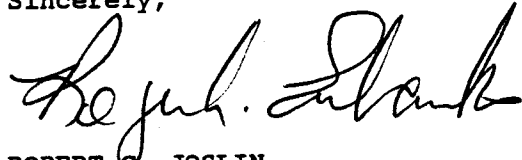
Dear Stan,

Enclosed is the Fish Day Fire Review Report. Please sign in the spaces indicated for State Forester and for your Staff Forester, Protection and return the report to us. We will mail you a copy once all signatures have been obtained.

The Forest Supervisor will be tasked to prepare an action plan in cooperation with State cooperators to meet the recommendations. We suggest that you follow the same procedure with your units.

We appreciate the cooperative spirit with which you and your people entered into this review.

Sincerely,


for ROBERT C. JOSLIN
Regional Forester

Enclosure

