



United States Department of the Interior  
United States Fish and Wildlife Service  
Southeast Regional Office  
1875 Century Boulevard  
Atlanta, Georgia 30345



**72 HOUR REPORT / FATALITY ON MACKAY ISLAND NWR**

To: John Segar, Chief of Fire Management Branch, US Fish and Wildlife Service  
Chris Wilcox, National Fire Operations Program Leader, US Fish and Wildlife Service

From: Brian Hardison, Delegated Serious Accident Investigation Trained Investigator

Subject: 72 Hour Report – Wildfire and Fatality at Mackay Island NWR

**THE FOLLOWING INFORMATION IS PRELIMINARY AND SUBJECT TO CHANGE**

**INCIDENT NUMBER:** NC-MCR-131004

**LOCATION (General):** Mackay Island NWR, Currituck County, NC

**LOCATION (GPS):** Lat: 36° 30' 51" Long: 75° 55' 42"

**LOCATION (2013 Prescribed Fire Plan):** Fire Unit# 1.2.14

**SIZE/AREA INVOLVED:** 14.6 acres determined by NC Forest Service

**DATE OF OCCURRENCE:** March 3, 2013

**TIME FIRE DETECTED/REPORTED:** 1517 per Currituck County Dispatch Event Report

**INVOLVED FIRE RESOURCES:** Knotts Island Volunteer Fire Department (KIVFD)  
North Carolina Forest Service  
Virginia Beach Fire Department per Mutual Aid  
Mackay Island NWR

**ACTIVITY:** Initial attack on wildfire at Mackay Island NWR

**NUMBER OF INJURIES:** N/A

**NUMBER OF FATALITIES:** One (1) – KIVFD

**PROPERTY DAMAGE:** No structures impacted

**SUMMARY:** On Sunday, March 3, 2013 while coordinating wildfire suppression activities of the KIVFD within the boundary of Mackay Island National Wildlife Refuge, the KIVFD Fire Chief began experiencing respiratory distress and other medical symptoms. The Fire Chief accessed paramedic level care from an on-scene staged Currituck County Emergency Medical Services ambulance (CCEMS). The Fire Chief's medical condition deteriorated while treatment was being provided on-scene and while enroute to a predesignated medical helicopter landing zone. After a period of advanced life support treatment by a CCEMS paramedic and crew members of a dispatched medical helicopter, medical control from Norfolk General Hospital concurred with cessation of resuscitation efforts. County Coroner/Medical Examiner notifications were made and the Fire Chief was pronounced deceased at approximately 1730 hours.

**NARRATIVE with TIMELINE:** On Sunday, March 3, 2013 at **1517** hours the KIVFD Fire Chief notified Currituck County Dispatch of an observed large column of smoke of unknown origin near the Mackay Island area. The KIVFD Fire Chief notified Currituck County Dispatch advising he was enroute and requested that KIVFD Station 15 fire resources respond to the MacKay Island NWR area. Several 911 telephone calls from residents in the proximate area advised the fire was on the Refuge and approaching Knotts Island Road (also designated/named NC 615).

While enroute to the scene at **1523**, the KIVFD Fire Chief requested Currituck County Dispatch to make telephone contact with Mackay Island NWR staff. At **1526**, KIVFD Engine 15 and CCEMS Medic 8 arrived within the 500 block of Knotts Island Road proximate to the Mackay Island NWR entrance road (Mackay Island Road). KIVFD Engine 15 began assessment and suppression efforts while CCEMS Medic 8 took up a staging/blocking point at the beginning of Mackay Island Road.

At **1528**, a Currituck County dispatcher left a telephone message on the Refuge's published telephone line. Also at **1528**, the KIVFD Fire Chief requested Currituck County Dispatch page out North Carolina Forest Service for suppression assistance. At **1530**, the KIVFD Fire Chief arrived on scene via his personal vehicle and took command of KIVFD resources on station. The KIVFD Fire Chief directed initial attack activities on Mackay Island Refuge's Fire Unit # 1.2.14 (see image page 4) and coordinated Knotts Island Road suppression via radio traffic. At **1543**, the KIVFD Fire Chief requested mutual aid from the Virginia Beach Fire Department specifically requesting a tanker, engine, and brush truck. Also at **1543**, the Refuge's engineering equipment operator arrived at the EMS staged ambulance after receiving a telephone call from residents having knowledge of the fire being present on the Refuge.

At approximately **1553**, the KIVFD Fire Chief walked away from the active fire area to the staged CCEMS ambulance on Mackay Island Road. Upon conducting a quick patient assessment, the CCEMS paramedic requested a driver for the unit. During a SAI interview, the CCEMS paramedic indicated that the KIVFD Fire Chief was having difficulty breathing and was in respiratory distress as he approached the ambulance. Medical treatment was commenced on the KIVFD Fire Chief and a dispatch request was made by the attending paramedic for a Virginia Beach EMS unit to assist with treating respiratory distress symptoms. While transporting and treating the KIVFD Fire Chief, the CCEMS paramedic requested that a medical helicopter be dispatched at **1622**. A rendezvous point landing zone was confirmed as Creeds Elementary School at **1626**. At **1627**, CCEMS Medic 8 reported that CPR was in progress. The condition of the KIVFD Fire Chief did not improve with advanced life support treatment and resuscitation efforts were stopped per medical control contact.

During the timeline of the above medical emergency, units of the North Carolina Forest Service and Virginia Beach Fire Department were active in fire suppression efforts on Mackay Island NWR's Fire Unit # 1.2.14 (see image page 5) and also along Knotts Island Road. At **1630**, North Carolina Forest Service assumed command of the fire suppression efforts and released the on-scene Virginia Beach Fire Department units at **1632**. At **1640**, the North Carolina Forest Service Incident Commander (FOR1) reported to Currituck County Dispatch that KIVFD station 15 units had been cleared to return back to station and that the fire was contained. At **1854**, FOR1 declared the fire extinguished and command was terminated.

**FIRE INFORMATION:** A preliminary estimate of the area burned is approximately 15.5 to 16 acres which encompasses a predominate amount of the acreage of Mackay Island NWR's Fire Unit # 1.2.14 (see map on page 4). A final Incident Status Summary (ICS-209) was submitted to the North Carolina ICC on 3/5/13 at 1435. The fuels/materials involved in the fire were predominately switchgrass (Carthage) ranging up to 5 feet in height. This particular fire unit had been prepared for a future prescribed burn with a twice plowed firebreak joining gravel road thereby forming a defensible perimeter fireline. The plowing activity occurred on January 30<sup>th</sup> and February 19<sup>th</sup> with the latter being completed to widen the firebreak and upturn more dirt to reduce vegetation.

Mackay Island NWR has an established Memorandum of Understanding concerning mutual aid in wildland fire with the Knotts Island Volunteer Fire Department. The U.S. Fish & Wildlife Service (FWS) Agreement Number is 41660-2011-001 with signatory dates of April 12, 2011. The actions taken by KIVFD to suppress this fire are consistent with language and intent of the MOU. In addition, Mackay Island NWR executed a Mutual Aid Agreement with Currituck County effective August 22, 2011. The Mutual Aid Agreement Number is 40181BK020. All resources committed by Currituck County to aid Mackay Island NWR were provided consistent with language and intent of the Agreement.

Mackay Island NWR's current Fire Management Plan (dated September 2009) and Prescribed Fire Plan (dated February 2013) will be reviewed as a part of this serious accident investigation to determine any relevance to this wildfire incident.

The cause of the fire is currently under investigation by the NC Forest Service Law Enforcement Division with a FWS Refuge Law Enforcement Zone Officer serving as the federal law enforcement liaison. A FWS PIO has been established to handle any public or media inquiries.

Members of the KIVFD and other response agencies were offered and attended a Critical Incident Stress Management session set up by Currituck County.

**SERIOUS ACCIDENT INVESTIGATION INFORMATION:** A serious accident investigation per requirements of Departmental Manual 485 Chapter 7 and FWS Policy 240 FW 7 is being conducted by the undersigned to derive a Factual Report and Management Report to FWS Chief – Branch of Fire Management.

/s/ Brian Hardison

Delegated Serious Accident Investigation Trained Investigator for Mackay Island NWR Cache Fire – Incident Number NC-MCR-131004

cc: Chief, Division of Safety and Health  
Serious Accident Investigation Official Case File  
Fire Management Branch Safety Manager  
Acting Project Leader - Coastal NC Refuges Complex  
Mackay Island NWR Refuge Manager  
NC Forest Service Law Enforcement Lead Investigator  
FWS Region 4 Refuge Law Enforcement Zone Officer Investigation Liaison



**MACKAY ISLAND NATIONAL WILDLIFE REFUGE**  
**Fire Units - Cache Fire**







# Cache Fire

**NC-MCR-131004**  
March 3, 2013

**14.6 acres**  
Mackay Island NWR  
Knotts Island, Currituck County, N.C.  
36 30.00 -75 55.00



## Legend

- Mackay Island Rd
- Refuge Service Rd
- State Road
- Fire Perimeter



0 155 310 620 930 1,240 Feet

Drawn By: Shane Baker, NCFS  
Date: 3-6-2013  
Acreages and Boundaries are Approximate