



Department of the Interior

**FY 11
Aviation Mishap Review**

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Ground Rules



The National Transportation Safety Board

NTSB 831.13 Flow and dissemination of accident or incident information.

(b) ... Parties to the investigation may relay to their respective organizations information necessary for purposes of prevention or remedial action.

... However, no (release of) information... without prior consultation and approval of the NTSB.

**This information is provided
for accident prevention purposes only**



DOI FY 11 Aviation Mishaps

FY 11

3 Accidents

7 IWPs

NO Fatalites

Recurring Issues

Mission Planning

Managing Risk

Risk Tolerance

Policy Violations

IAT Training

Flight Following

Mishap Reporting

Supervision

DOI Accidents FY 11

Reedsport, OR, December 31, 2010



\$ 209,366

Northway, AK, August 3, 2011



\$ 11,000

Seward, AK, September 23, 2011



\$ 82,742

DOI IWPs FY 11

Lake Clark, AK
December 2, 2010
PA-18 SuperCub - Sank after landing on ice



\$ 91,150

Port Alsworth, AK
April 14, 2011
Cessna 206 - Salt water corrosion



\$ 50,432

Bethel, AK
April 15, 2011
DHC-2 Beaver - Internal engine failure



\$ 74,592

West Palm Beach, FL
Undetermined
AS 350B2 - Tail rotor assembly damage



\$ 30,000

DOI IWPs FY 11

Cinnabar, AK
July 26, 2011
Cessna 207 - Ran off narrow gravel strip



\$ 12,513

Manteo, NC
June 19, 2011
Bell 407 - Water drop on personnel



\$ 4,500

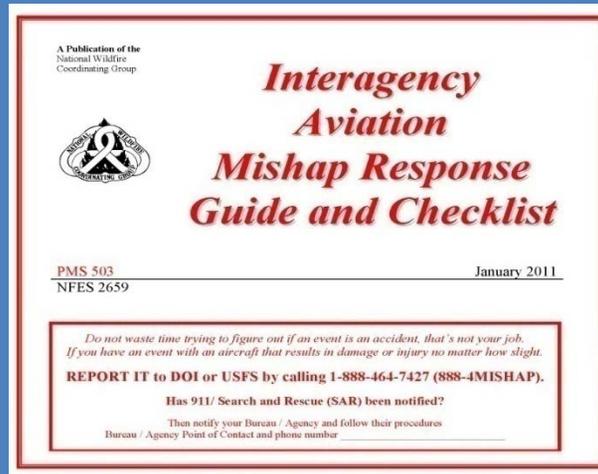
Wendover, NV
August 13, 2011
AS 350B2 - Wire Strike



\$ 7,575

Classification

Something just happened !!
What is it, and what do we do ?
Who do we tell, and how ?



Classification

Mishaps

Mishaps include aircraft accidents, incidents with potential, aircraft incidents, aviation hazards, and aircraft maintenance deficiencies.

Report all mishaps to your chain
of command and via
SAFECOM

Accidents

Aircraft Accident. An occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, **or in which the aircraft receives substantial damage.**

The NTSB determines if a mishap is an accident
(49 CFR 830.5)

Requires immediate notification to the AMD Aviation Safety Manager (888-4MISHAP)

Incidents

Aircraft Incident. An occurrence, **other than an accident**, associated with the operation of an aircraft, which affects or could affect the safety of operations.

The NTSB determines if a mishap is an aircraft incident.

49 CFR 830.5 lists 12 types of incidents that require immediate notification

**When in doubt...
call the AMD Aviation Safety Manager
(888-4MISHAP)**

Incident-With-Potential

Incident-With-Potential (IWP). An incident that narrowly misses being an accident and in which the circumstances indicate significant potential for substantial damage or serious injury.

AMD determines if a mishap is an
IWP

Any damage or injury,
no matter how slight, should be reported to the AMD
Aviation Safety Manager.
(888-4MISHAP)

Classification

Elevated SAFECOM

Elevated SAFECOM. A SAFECOM that identifies a Departmental-level aviation safety concern may be "elevated" by the AMD Aviation Safety Manager for a more thorough investigation. Elevated SAFECOMs are coordinated with the Bureau involved and may or may not include a visit to the event site.

AMD and the Bureau determine if a SAFECOM should be "elevated"



DOI FY 11 Aviation Mishaps

Five Steps To A Safe Flight

1. Pilot/Aircraft Data Card - Approved & Current
2. Flight Plan/Flight Following Initiated
3. PPE in Use When Required
4. Pilot Briefed on Mission & Flight Hazards
5. Crew & Passenger Briefing to Include:
 - Aircraft Hazards
 - Fire Extinguisher
 - Seat Belt & Harness
 - Fuel & Electrical Shut-off
 - ELT & Survival Kit
 - Oxygen Equipment
 - First Aid Kit
 - Emergency Egress
 - Gear & Cargo Security
 - Smoking(Not Under Seats)

FS 5700-16 (OAS-103) April 97
NFES 1399

Remember!

To report an aircraft accident call:

1-888-4MISHAP (1-888-464-7427)

File a SAFECOM to report any condition, observance, act, maintenance problem, or circumstance which has potential to cause an aviation-related accident.

Anyone can refuse or curtail a flight when an unsafe condition may exist.

Never let undue pressure (expressed or implied) influence your judgement or decisions. Avoid mistakes, don't hurry!

Twelve Standard Aviation Questions That Shout "Watch Out!"

1. Is this flight necessary?
2. Who is in charge?
3. Are all hazards identified and have you made them known?
4. Should you stop the operation on the flight due to change in conditions?
 - Communications Weather Confusion
 - Turbulence Personnel Conflicting Priorities
5. Is there a better way to do it?
6. Are you driven by an overwhelming sense of urgency?

NFES 1129 (1998)

7. Can you justify your actions?
8. Are there other aircraft in the area?
9. Do you have an escape route?
10. Are any rules being broken?
11. Are communications getting tense?
12. Are you deviating from the assigned operations of flight?

Anyone can refuse or curtail a flight when an unsafe condition may exist. Never let undue pressure (expressed or implied) influence your judgement or decisions. Avoid mistakes, don't hurry!

NFES 1129 (1998)



Reedsport, OR

December 31, 2010



Quest Kodiak 100

Mission

Migratory Bird
Program

(waterfowl survey flight)

Damage

Substantial

Injuries

None

Procurement

Fleet

NTSB ID

WPR11TA083





Aerial hazard detection

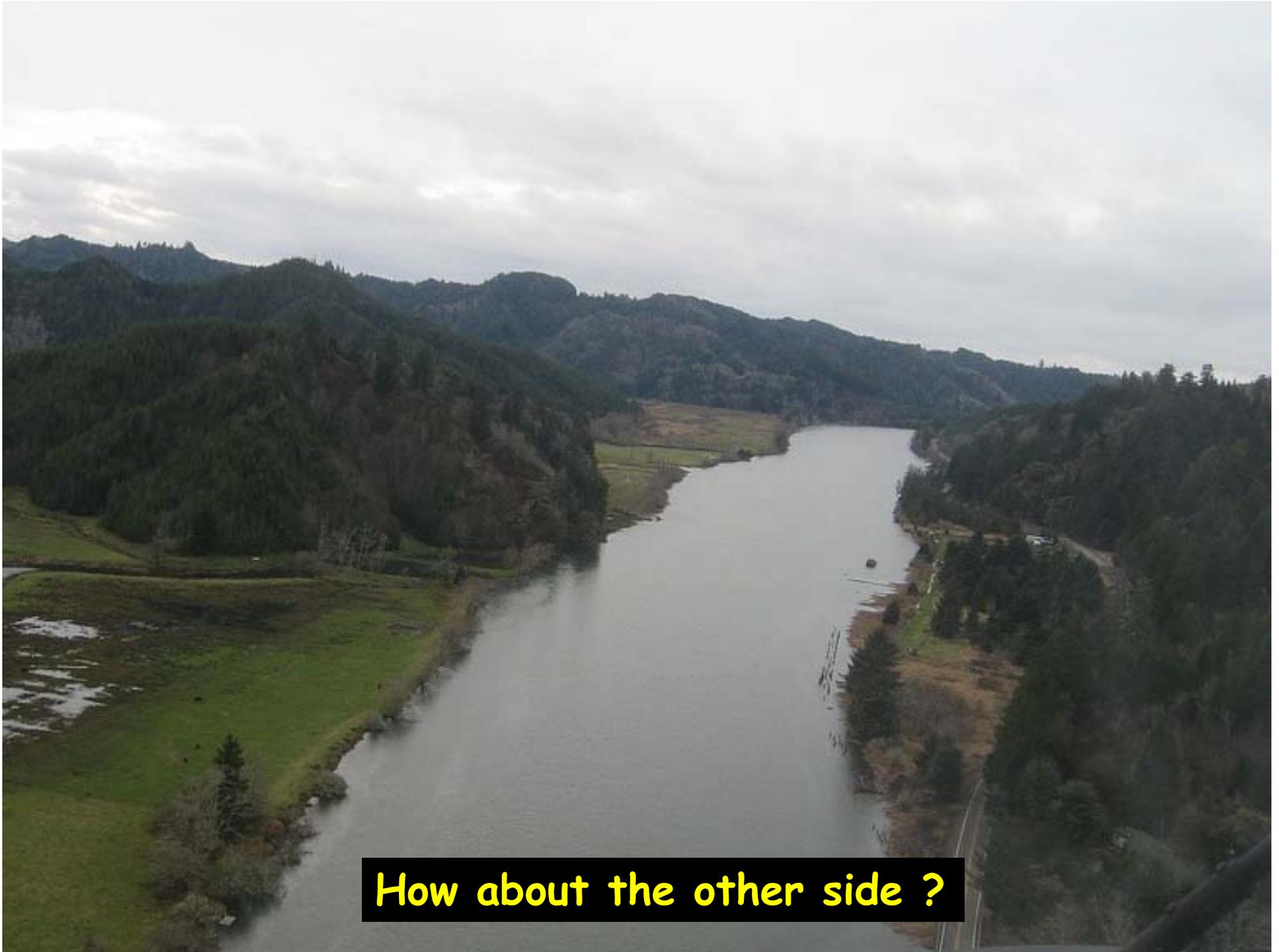












How about the other side ?





South shore

North shore



152'

120'

Approximate location of the poles and wires

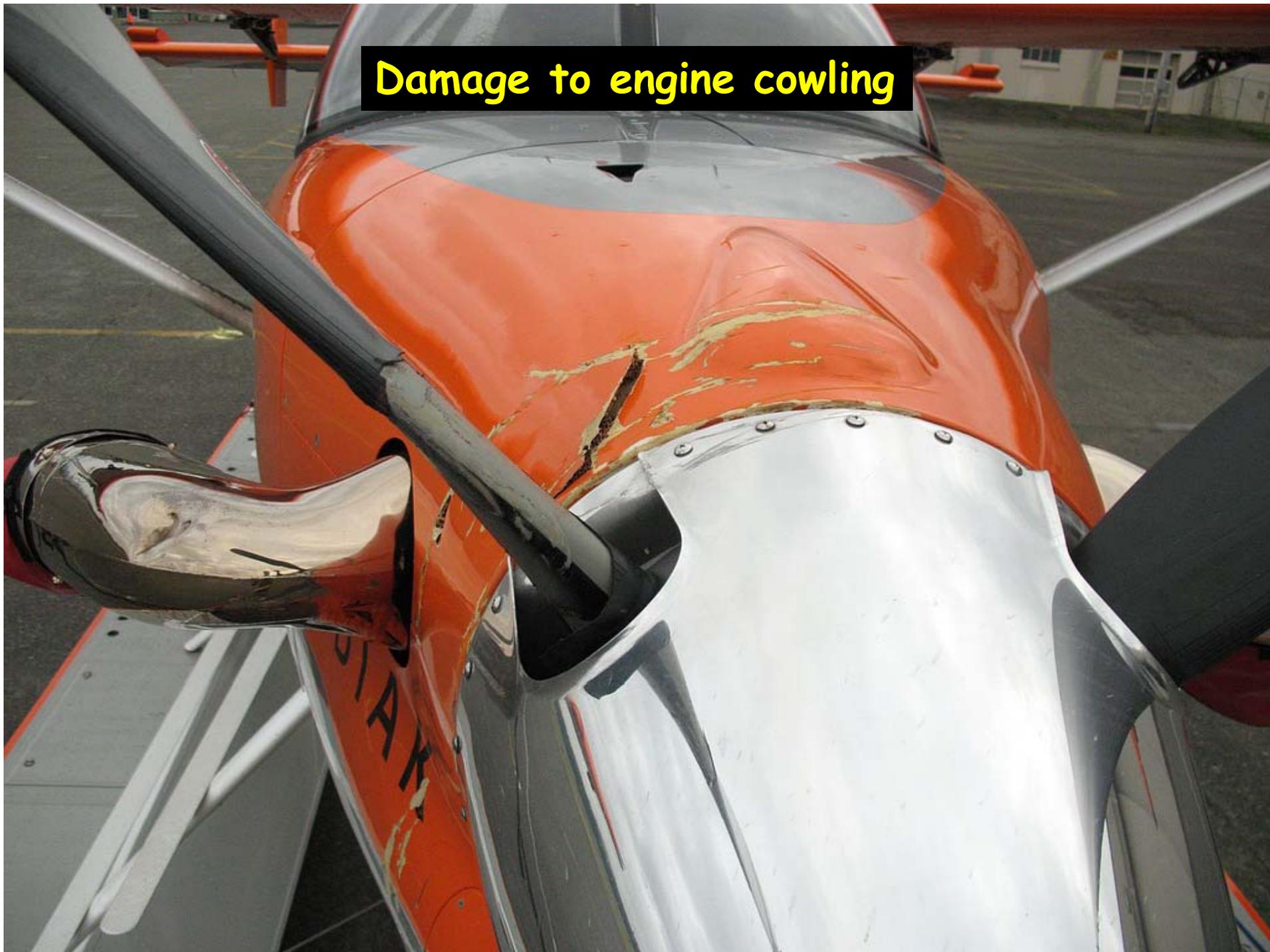
Impact on center of prop spinner



Wires slid into prop



Damage to engine cowling



Damage to props



Damage to left wing



Damage to left aileron



Discussion





Northway, AK

August 3, 2011



DeHavilland
DHC-2 Beaver

Mission

Passenger
transportation to
off-airport site
(Special Use)

Damage

Substantial

Injuries

None

Procurement

ARA

NTSB ID

ANC11TA079



















Discussion





Seward, AK

September 23, 2011



Bell 206B-III

Mission

Glacier Study

Damage

Substantial

Injuries

None

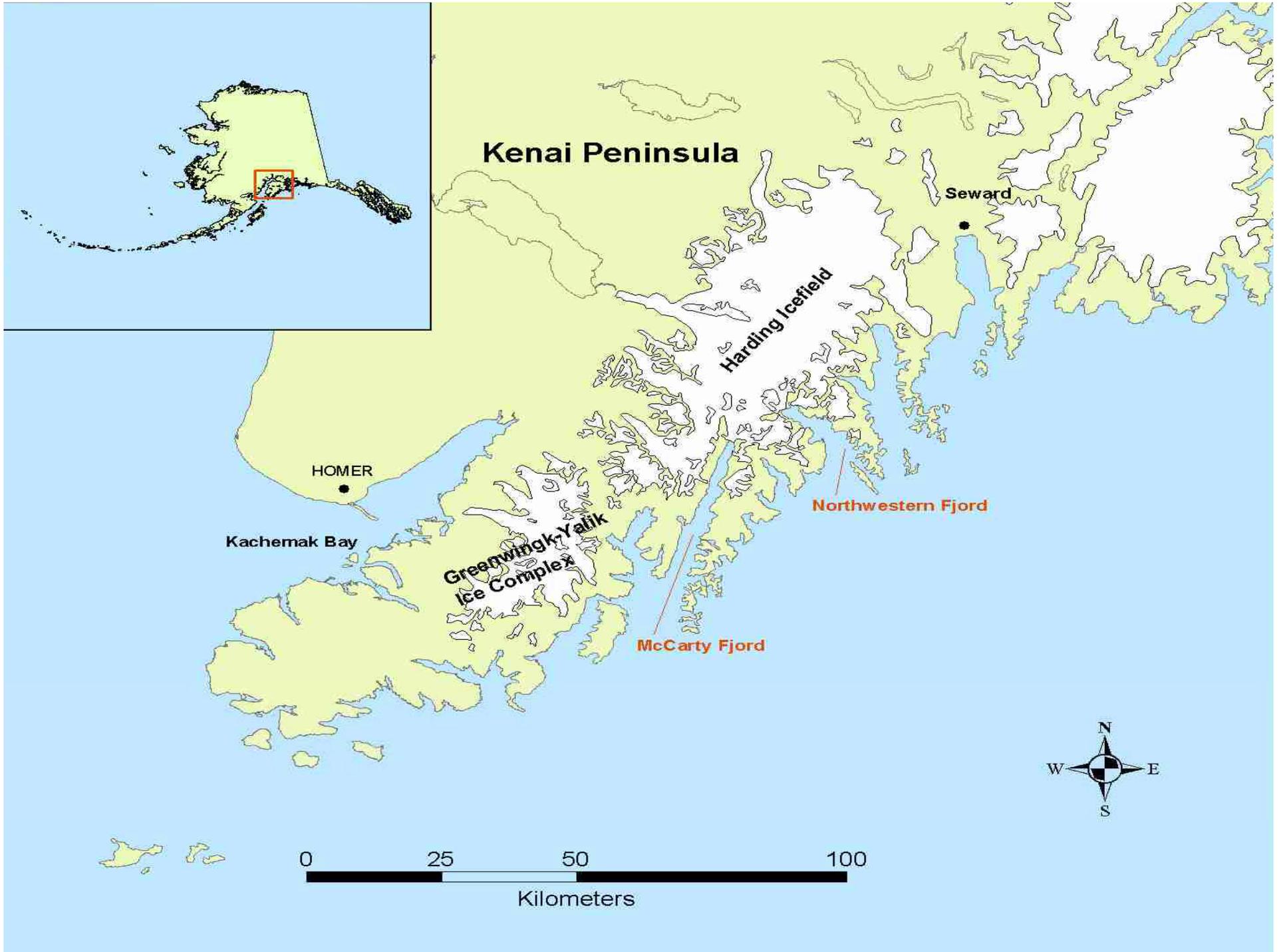
Procurement

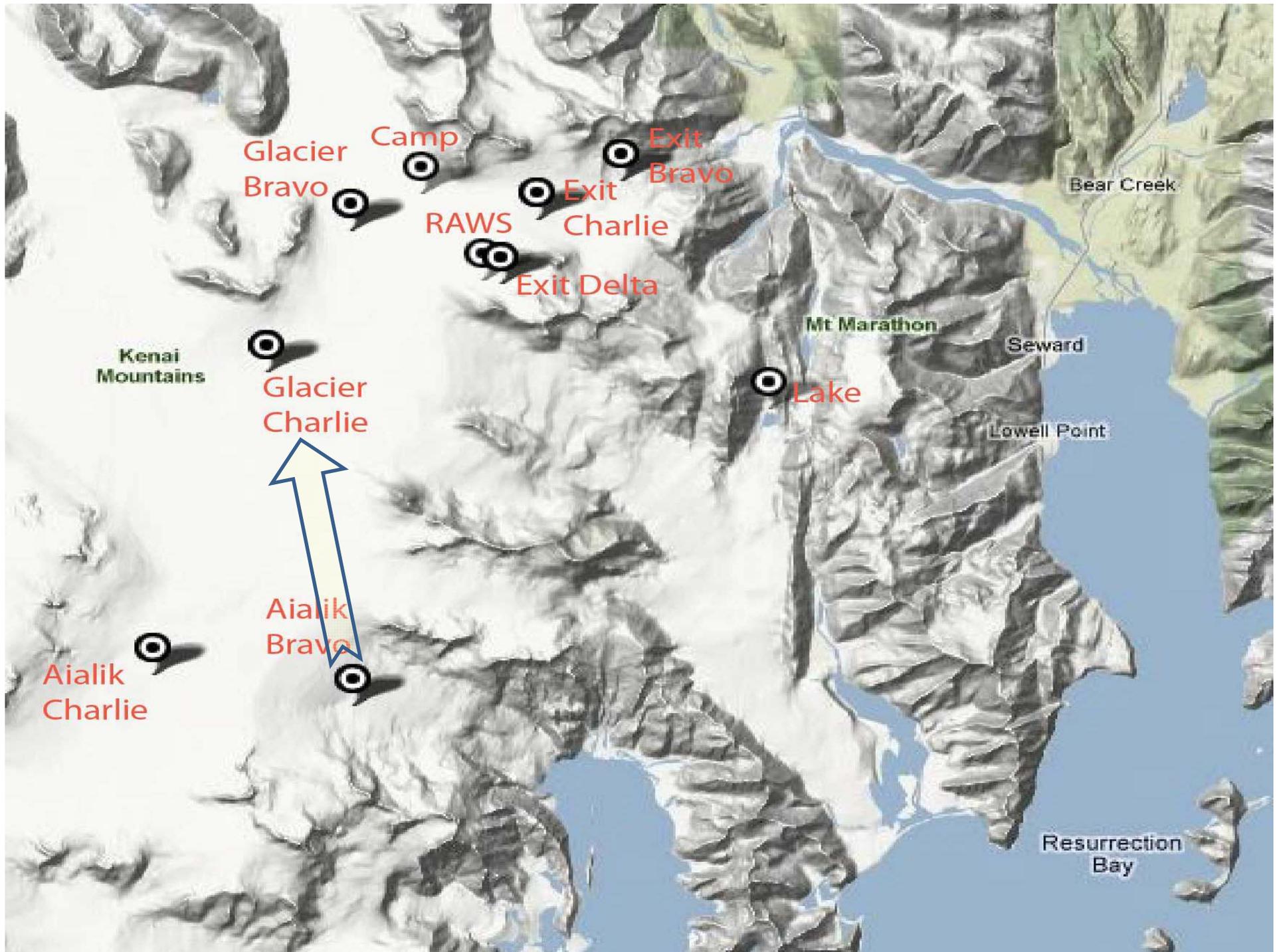
CWN

NTSB ID

ANC11TA111









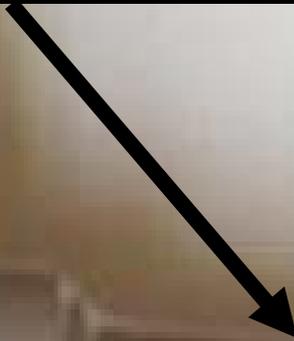








Non-riveted section. *Glue bonded only.*



Time(AKD)	Temperature	Dew Point
	° F	° F
11:43	31.6	31.1
10:43	30.9	30.4
9:43	30.2	30.0
8:43	29.7	29.4
7:43	28.8	28.5
6:43	28.4	28.2

8:53 AM	42.1 °F	36.0 °F
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9:53 AM	46.0 °F	37.0 °F
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10:53 AM	50.0 °F	37.9 °F
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1:53 AM	52.0 °F	37.9 °F
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Discussion



IWPs



Manteo, NC

September 23, 2011



Bell 407

Mission

Fire Suppression

Damage

Vehicle Damage only

Injuries

None

Procurement

CWN

NTSB ID

N/A





Approximate location
of helicopter
and dipsite

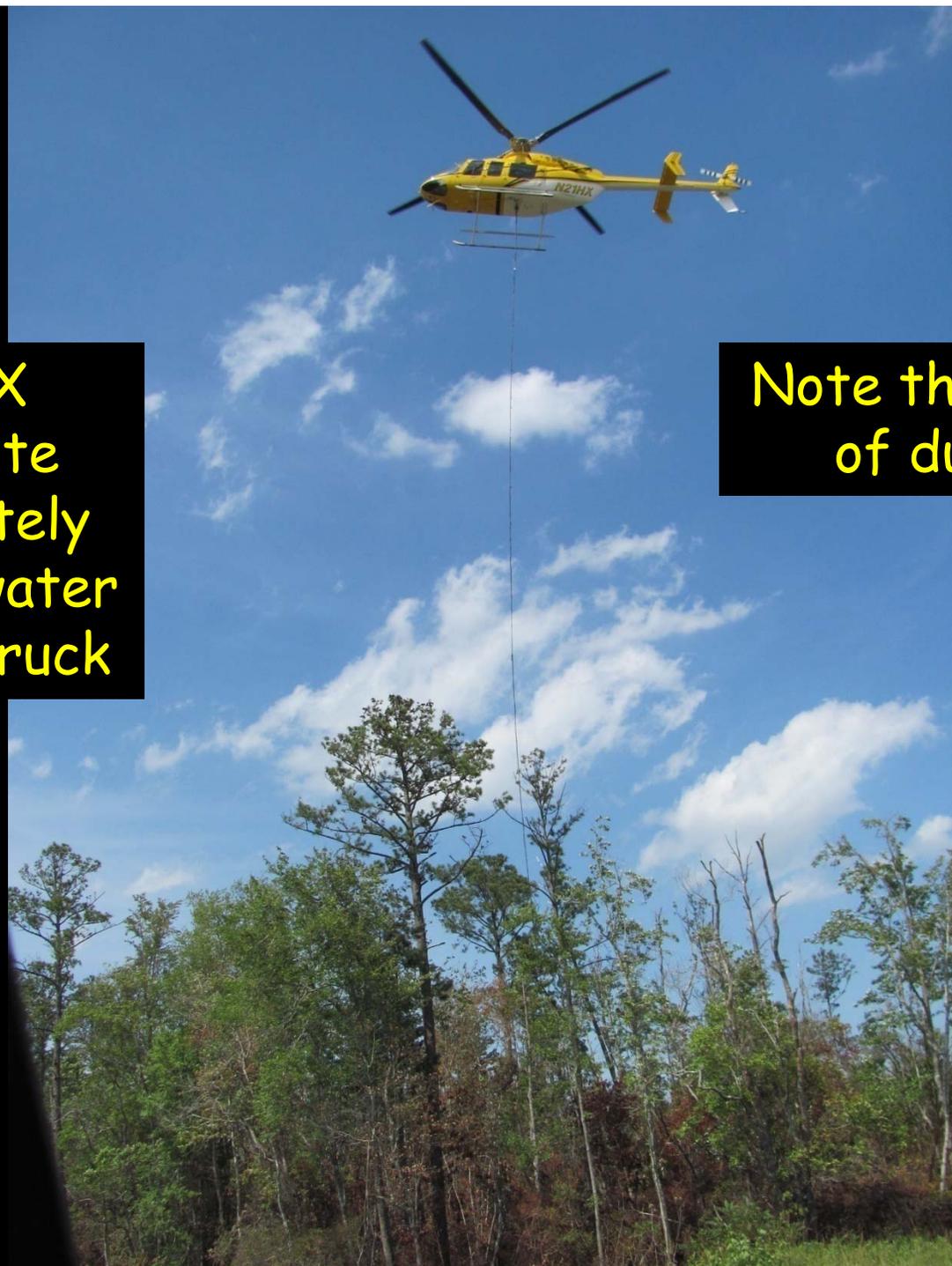


Damaged truck



N21HX
at dipsite
immediately
prior to water
drop on truck

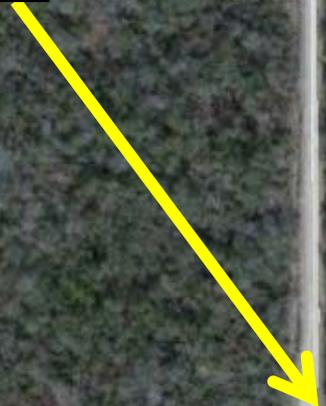
Note the lack
of dust





North

Dipsite



Jackson Rd.

Jackson Rd

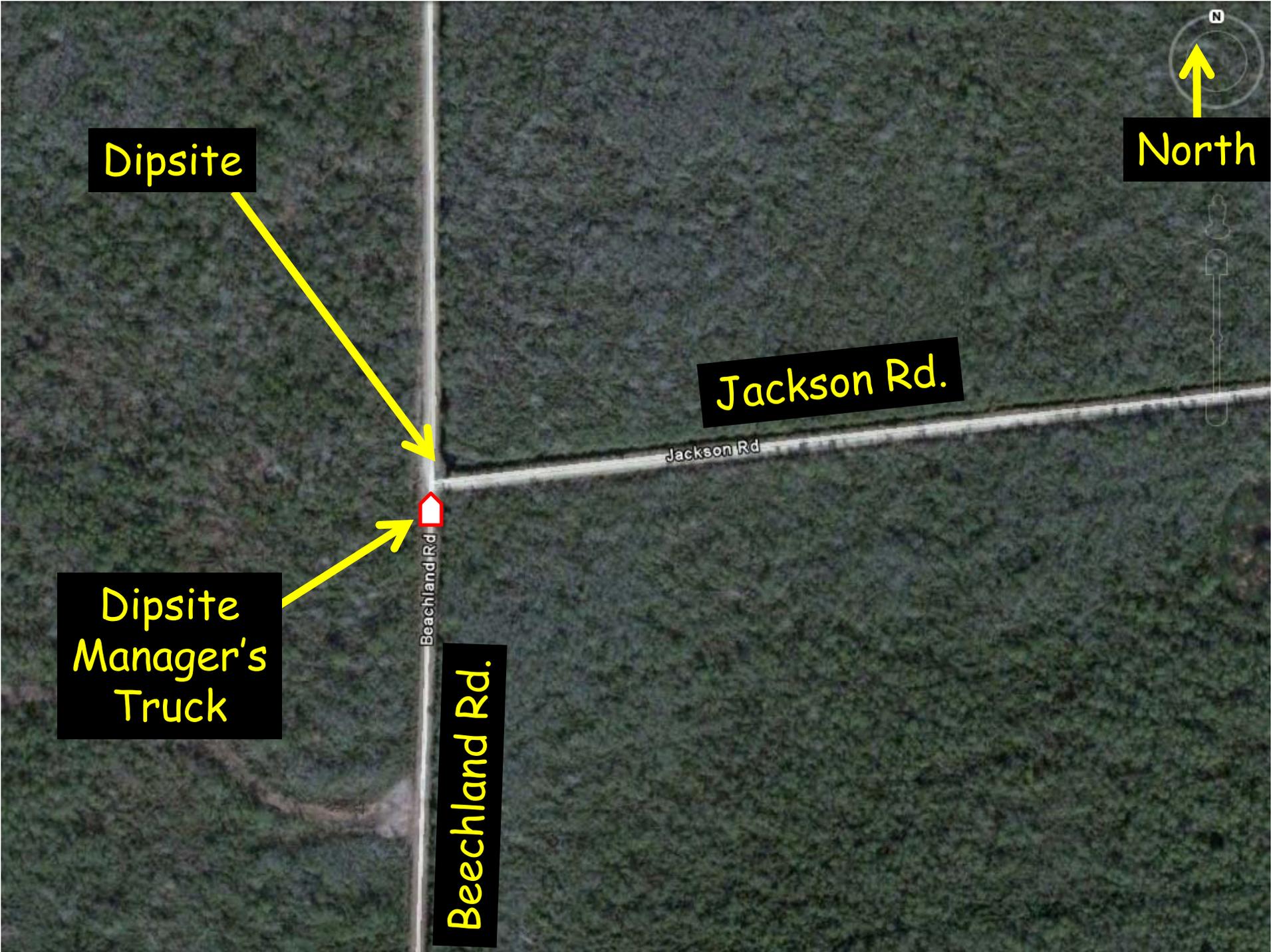


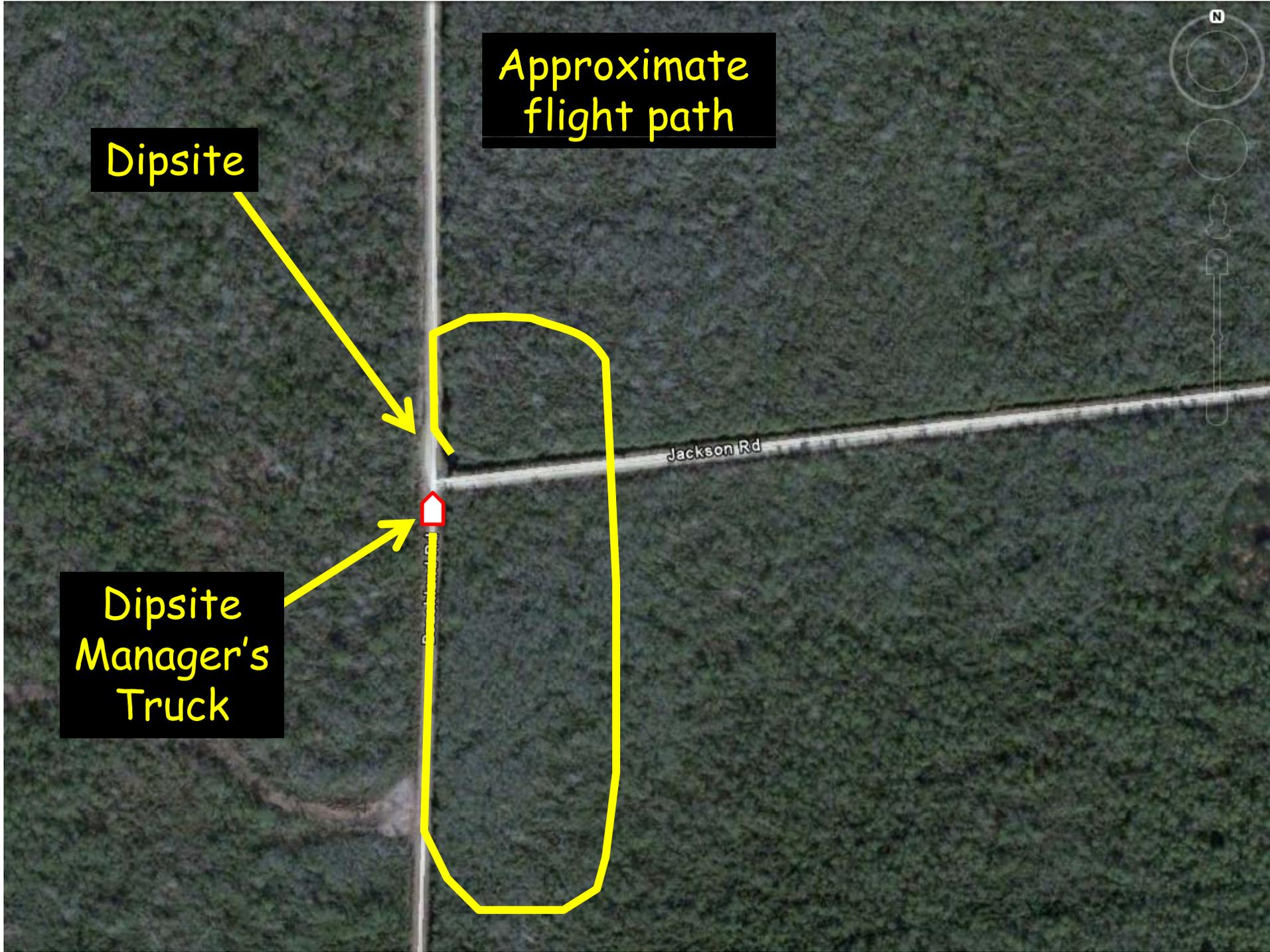
Beechland Rd

Dipsite
Manager's
Truck



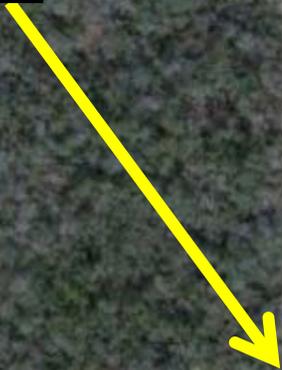
Beechland Rd.





Approximate flight path

Dipsite



Dipsite Manager's Truck



Jackson Rd



Damage to truck roof after temporary repair





Discussion





Wendover, NV

August 13, 2011



AS 350 B2

Mission

Fire Suppression

Damage

Minor

Injuries

None

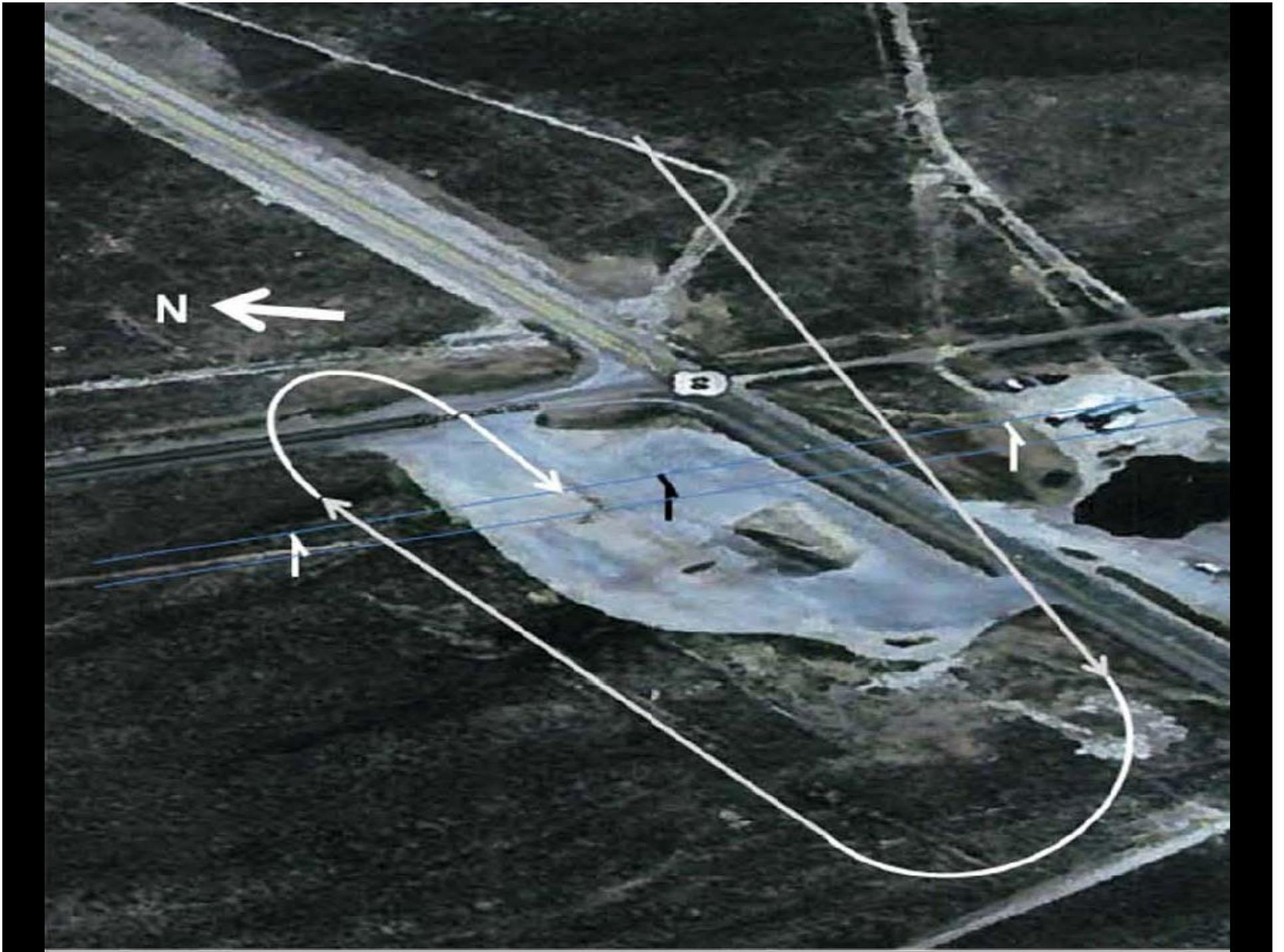
Procurement

Exclusive Use

NTSB ID

N/A













Discussion





Cinnabar, AK

July 26, 2011



C 207

Mission

Natural Resource

Damage

Minor

Injuries

None

Procurement

ARA

NTSB ID

N/A







Aircraft





Discussion





Caliente, NV

August 26, 2011



AS 350 B2

Mission

Fire Suppression

Damage

Main Rotor Strike

Replaced

Injuries

None

Procurement

Exclusive Use

NTSB ID

N/A



Dolmar



Chainsaw file







Interagency Aviation Safety Alert



No. IASA 10-02

March 23, 2010

Page 1 of 2

Subject: Tossing objects under turning rotor blades

Area of Concern: Helicopter operations

Distribution: All Aviation Activities

Discussion: A Bell 206 L-1, configured for an aerial ignition mission was spooling up for a prescribed burn operation ([SAFECOM 10-0126](#)). In the aircraft were the Pilot, Firing Boss (FIRB), and the Plastic Sphere Dispenser Operator (PLDO). The Helicopter Manager (HMGB) was approximately 50 feet in front of aircraft. The left front door of the aircraft was off at FIRB's request and with the pilot's approval. The aircraft was at flight idle and just after the radio check the HMGB heard the FIRB on air-to-ground say, "could you hold on to this" as FIRB was digging in his left front pocket. The HMGB then made two steps toward aircraft to take the object from the FIRB then heard a sharp noise followed by several other noises approximately twenty feet to left side of aircraft. The HMGB then signaled the pilot to shut the aircraft down. Dispatch was notified that there was a situation and the aircraft would not be available for the prescribed burn.



What Happened? A pocket knife was tossed by the FIRB from the aircraft toward the HMGB, which hit one main rotor blade. The FIRB had attempted to toss the knife into the grass just off the asphalt in front of aircraft to avoid anything falling from aircraft during flight. Upon contact with the rotor blade, the knife burst into pieces landing off to the left side of the aircraft. The pilot inspected the rotor blades finding the point of impact and the HMGB notified the Regional Aviation Maintenance Inspector (RAMI), Contracting Officer Representative (COR) and the Assistant Fire Management Officer (AFMO). The pilot contacted the company mechanic at same time.

Inspection of the rotor blades revealed two small gashes approximately 9 inches from tip of one blade and approximately 2 millimeters deep on the leading edge. Also found were several small paint chips on underside of the rotor blade which did not enter the "honey comb" of the rotor blade. Fortunately, no-one was injured and the rotor blades were able to be repaired, saving thousands of dollars.





Discussion



Looking back at the past

