DOI Aviation Mishap Review
FY 09

Steve Rauch
John Mills
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
Anchorage, AK
October 2, 2008

Piper PA-18

Mission
Proficiency Training

Damage
Substantial

Injuries
None

Procurement
Fleet

NTSB ID
ANC09LA002
The National Transportation Safety Board determined that the probable cause of this accident was ...

**Probable Cause**

“The pilot's excessive application of the brakes during the landing roll, which resulted in the airplane nosing over.”
Initial touchdown and ground track

Intended touchdown area
Ground scars from main landing gear
Prop Strikes and Prop Scar
Heel actuated "Booster" brakes

Rudder pedal
Air Tractor
AT-802A
Mission
Fire Suppression
Damage
Destroyed
Injuries
1 Fatal
Procurement
Variable Term
NTSB ID
WPR09GA407
The National Transportation Safety Board determined that the probable cause of this accident was ...

**Probable Cause**

“The pilot’s failure to maintain a stabilized approach prior to the retardant drop and his subsequent failure to release the retardant load, resulting in a stall/mush and collision with terrain.”
Aircraft track and impact points
Aerial Overview

Bottom of draw to first point of impact to wreckage

150 yds

75 yds
EXTRA CREDIT QUIZ !!

Which aircraft has the worst performance characteristics in fire suppression :

a. B-747  
b. P2V-7  
c. AT-802  
d. P-3
AT-802F
Drop speed – 125-130 mph (109-113 kts)
Stall Speed¹ – approx. 98 mph (85 kts)
Release Altitude – 60 ft AGL (min)
Max Rate of Climb – 850 ft / min
125 / 98 = 1.27
820 gal. of retardant

P2V-7
Drop Speed – 140 mph (122 kts)
Stall Speed² – approx. 90 mph (78 kts)
Release Altitude – 150 ft AGL (min)
Max Rate of Climb – 1760 ft / min
140 / 90 = 1.55
2400 gal. of retardant

¹Estimated Stall speed based on configuration
²Estimated Stall speed based on configuration
B747-200
Drop Speed – 140 kts (161 mph)
Stall Speed* – approx. 108 kts (125 mph)
Release Altitude – 400 ft AGL
Max Rate of Climb – 3800 ft / min
140 / 108 = 1.30
20,500 gal. of retardant
*Estimated Stall speed based on configuration

P-3
Drop Speed – 130 kts (150 mph)
Stall Speed³ – approx. 85 kts (98 mph)
Release Altitude – 150 ft AGL (min)
Max Rate of Climb - 1840 ft / min (at 139,000 lbs)
130 / 85 = 1.53
3000 gal. of retardant (2550 by contract)
³Estimated Stall speed based on configuration
Tanker Maneuverability Margin Comparisons

1.25 1.55 1.64 1.3

Release to Stall Speed Ratio

SEAT operate closer to stall

SEAT has the lowest mission rate of climb

SEAT release closest to the ground

AT-802 operates 60% lower Height Above Terrain than the P2V-7.
AT-802 has a release to stall ratio 19% lower than the P2V-7
Questions ?
Bethel, AK
August 30 2009

Piper PA-18

Mission
Law Enforcement Support

Damage
Substantial

Injuries
None

Procurement Fleet

NTSB ID ANC09TA090
The National Transportation Safety Board determined that the probable cause of this accident was...
Pilot’s eye view
Pilot’s eye view
Pilot's eye view
Initial touchdown, bounce, and ground track

Intended touchdown area

Wind S-SW 21G30

Initial touchdown, bounce, and ground track
Aircraft was moved immediately following the accident. The aircraft initially came to rest on its nose, 90° to the right.
Substantial Damage
Questions ?
Gulkana, AK
September 3, 2009

Aviat A-1B

Mission: Pilot Proficiency
Damage: Substantial
Injuries: None

Procurement Fleet

NTSB ID: ANC09TA092
The National Transportation Safety Board determined that the probable cause has not yet been determined.

Probable Cause

To be determined.
Landing Area

First Identified Point of Contact (left MLG)

Bounce and second point of touchdown

Prop strikes and nose impact