



Aircraft Composite Cutting

A Guide for Fire Fighters

Objective

The objective of this presentation is to outline Boeing's recommendation for cutting through the composite main body of an aircraft in an emergency that involves fire, rescue, or both.

With more and more composites being used in the industry it is essential for Airport Firefighters to become familiar with the recommended procedures for cutting into this type of fuselage

Our recommendations were developed after extensive testing with composite fuselage structures and in partnership with Snohomish County Airport Fire Department, the Port of Seattle Fire Department, and Washington State Fire Academy

Personnel Protective Equipment

Personnel should be in full protective clothing with bunker gear and self-contained breathing apparatus (SCBA) regardless of the material being cut.



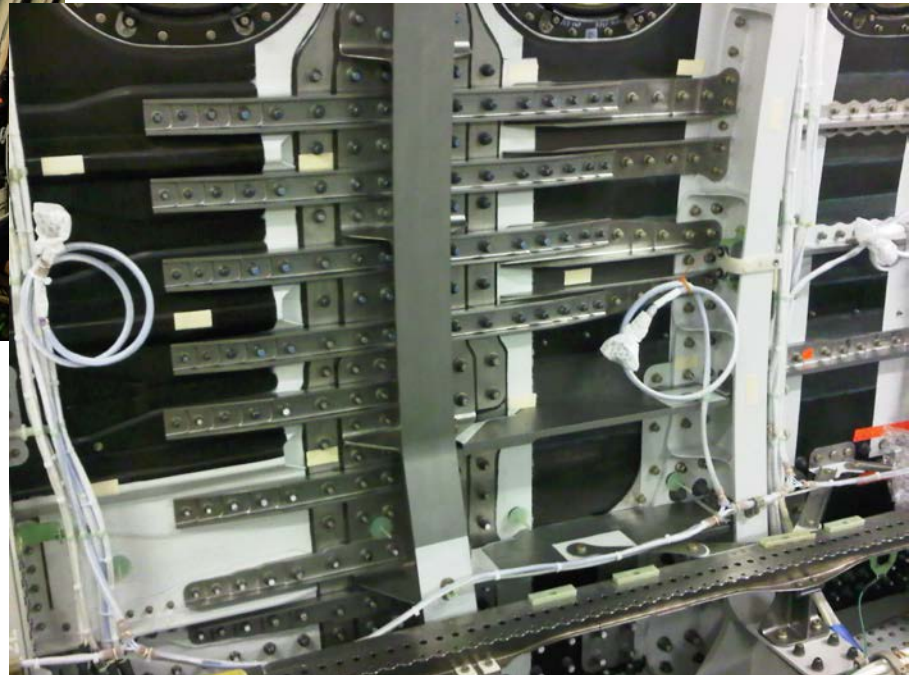
Tactics



The **cut-in area** should be forward or aft of the wing.

Avoid cutting directly over the wing due to significant structural reinforcement

Re-enforced Structure



Tactics (cont.)



The recommend cut-in area is 12 inches (31 centimeters) above and 12 inches (31 centimeters) below windows.

Tool recommendation

A rotary rescue saw with a minimum 14-inch diamond-tipped blade is recommended.

Note: Although other types of blades (i.e. abrasive disc, carbide tip) can perform these cuts, we have found the diamond-tipped blade to be the most serviceable.



Recommended cutting technique

- First cut Top
- Second cut Far side
- Third cut Bottom
- Final cut Near side



While performing cuts flow water from the crown of the aircraft over the cut area to limit particulates becoming airborne and to control sparking

This sequence of cuts demonstrated no pinching while conducting the third (Bottom) cut.

Decon



- Every aircraft incident that involves fires or other operations that can leave a residue or debris should require that all personnel and equipment be fully decontaminated at the scene per your department procedures.

Contact Information

Additional questions regarding issues related to Aircraft Rescue and Fire Fighting (ARFF) and Boeing aircraft can be directed to the following:

Boeing Fire Department
Attn: J.R. Hudgins, Assistant Chief – Training & Safety
P.O. Box 3707, MC 17-WE
Seattle, Washington USA 98124
316-253-5367 (Cell)
John.r.hudgins@boeing.com