AIRCRAFT PENETRATION: WHY, WHEN, AND WHERE

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The level of technical expertise required to operate an ARFF apparatus equipped with a HRET (High Reach Extendable Turret) is significant. As we embrace new technologies in the Aircraft Rescue Firefighting arena, how do we best address the training, attitudes, and confidence of the apparatus operators? With the option of penetration, how does the operator determine the reason why, the time when, and the location where penetration and water/foam application would be most effective?

INTRODUCTION

As we try and embrace new technologies in the Aircraft Rescue Fire Fighting Arena how do we best address the training, attitudes, and confidence of the apparatus operators. This presentation is used to assist the operators in an understanding and gaining confidence in the fire ground operation of the penetrator appliance on their apparatus.

In an aircraft incident there exists too many variables to design a template of attack that will work on every interior fire but the intention of the presentation is to provide an overview of the penetration tactical option possibilities for both passenger and cargo aircraft. With the option of penetration how does the operator determine the location and time when penetration would be most effective?

The level of technical expertise that is required to operate the ARFF apparatus with HRET boom is significant. To be effective with an aggressive attack on a fire in an interior of an aircraft the operator must have a high level of understand regarding all of the effects of his fire suppression techniques as he attempts to reach his goal for the incident. My hope is to improve post crash interior fire survivability by better developing post crash cabin interior fire suppression techniques and allow for an increase in the ARFF operators level of understanding of what can be accomplished with the Skin Penetrating System.

Whatever ones opinion on the viability of saving all life in an internal cabin fire, this is likely in terms of risk assessment. Surely a technique that will give a reasonable chance of a successful outcome should be adopted. This should include appliances, equipment, manpower, resources and the tactics and techniques that may be expected to prevail in such circumstances. Are we paying lip service to this aspect of aircraft fire fighting and after assessing the risk are we fully prepared, because a second chance is highly unlikely.

The perilous nature of an aircraft fire requires extraordinary requirement in design, equipment, and training. Each in its own right may not be sufficient in controlling a serious fire but together they may provide the additional time to ensure survivability.

With the advent of larger airframes the ability of aircraft to absorb energy improves their