

# Very Large Transport Fire Safety (Presentation Outline)

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## Differences affecting Fire Safety

- Size
- Shape
- Number of Passengers

## Examples of Size

- Larger Hidden Areas
- More Ignition Threats
- More Impact Survivable
- Larger Quantity of Fuel
- More Cargo luggage/hazardous materials

## Examples of Shape

- Chimney Effect (Double Deck)
- Could be More Like Building Fires
- New Evacuation Problems Affect Protection Time Needed
- Upper Deck floor/coverings may be more important

## Examples of Number of Passengers

- Number of Possible Fatalities
- New Evacuation Problems affect Protection Time Needed
- The Carriage of Large Quantities of Oxygen

## Considerations for In-flight Fire

- Reduce or eliminate the carriage of bottled Oxygen
- Improve fire resistance of materials in hidden areas
- Consider active detection and extinguishing systems for high-risk areas, or ACES-type systems
- Reduce or eliminate flammable vapor mixtures from the fuel tanks
- Fire stops in hidden areas to limit potential vertical flame travel

## Considerations for Post Crash Fire

- Improve Burnthrough Protection
- Consider Water Mist System in Cabin
- Design for Evacuation under Realistic Fire Conditions
- Reduce or eliminate the carriage of Bottled Oxygen
- Reduce or eliminate flammable vapor mixtures from the fuel tanks

