



THE FIRE PROTECTION RESEARCH FOUNDATION

Glass Boarding Bridges

Project Summary

Last Updated: 26 July 2013

Background

There are several boarding bridge manufacturers that build glass bridges, which are currently permitted in countries that have not adopted NFPA standards. The Technical Committee for NFPA 415, *Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways*, would like more information about the global experience using glass boarding bridges including fire resistance of the bridges, fire test methods, use of alternate/additional escape routes from the plane, and psychology/sociology of occupants that must egress through a glass boarding bridge with a large fire outside/below.

Project Objective

The objective of this research is to provide information to the Technical Committee on Airport Facilities on the use of glass boarding bridges and may be used as the technical basis for inclusion of glass bridges in the standard.

Project Description

The purpose of this project is to gather information on the use of glass boarding bridges via the following tasks:

- Review the current construction of glass boarding bridges and the acceptance testing that has been performed on these designs. Determine whether they have been tested in a manner that is consistent with non-glass bridges. If not, document how the test methods differ.
- Review the fire history of non-glass bridges. Determine whether there is any evidence that the aircraft/bridge interface permits heat and products of combustion into the boarding bridge, thus negating the use of the bridge as a means of egress. If available, data on the performance of glass bridges during actual fire events would be beneficial as well.
- Determine the actual importance of the boarding bridge as an exit route during a fuel-spill fire on the ramp. Review standard operating procedures for airports and airlines, world-wide, regarding the use of alternate exits from the aircraft. Determine whether

inconsistencies exist between aircraft that use a boarding bridge to the terminal and aircraft that use stairs to the tarmac.

- Review relevant available research on the psychology/sociology of people in fires to determine whether the ability to see flame/smoke below and around the bridge will cause occupants to panic or to refuse to egress through a glass boarding bridge.
- Document the findings in a report.

Schedule

The research program will be conducted by the Fire Protection Research Foundation and will receive guidance throughout the project by a Project Technical Panel. Funding for this project is provided through NFPA. The final report is scheduled to be issued by September 2013.