



# Directional Sound Evacuation



In the context of Building, Aircraft and Ship safety, Directional Sound Evacuation has the following advantages:

- Language independent
- up to 70% improvement in exit times
- Ideal in poor visibility (dense smoke)
- Works in open areas, corridors, stairs
- “Audible exit signs”
- Time saved = Lives saved
- Low cost – easy retrofit
- Integrates with existing systems



**What is Localizer® technology?**



**Fire Safety**

Localizer® directional sound is a broadband, multi-frequency (“white noise”) sound. The sound source is easily and quickly located by our ears, making it ideal for rapid evacuation. Technology details are on the web site [www.soundalert.com](http://www.soundalert.com)

Developed at Leeds University, the technology is patented in the UK, USA, Australia and Hong Kong, with applications being processed in EU, Canada and Japan.

Conventional fire alarm sounders efficiently warn people in the event of a fire that evacuation is necessary, but give no indication of exit routes. Illuminated exit signs, which are often ignored as part of the everyday visual clutter, will help only if visible and not obscured by smoke. PA/VA systems can advise where to go, but cannot actually guide people along the route. Localizer-equipped evacuation beacons that use directional sound properties can identify evacuation routes even in dense smoke and are complementary to all the above systems. Localizer was recently awarded the Fire Industry Council’s product innovation award and the Royal Institution of Naval Architects ~ Lloyds Register Safer Ship award.



**Building Evacuation**

## Evacuation

Fatalities in fires are often caused by inhalation of poisonous smoke. Rapid evacuation of the smoke-filled areas is critical to save lives.

Directional sound technology, fitted in addition to the normal bells and sounders, offers a way to draw people to evacuation routes even in perfect visibility – however they are without equal in smoke. Triggered by existing Fire Detection systems in Buildings or by the crew on Aircraft and Ships, Localizer evacuation beacons positioned at carefully chosen locations guide people along escape routes. They can also guide people up or down stairs, whichever is the safe direction.



**Confusion in smoke**

In recent trials, half of the evacuees in a first test using conventional technology failed to escape in time and would have died. In a second test all escaped successfully in **less than half the time** with the assistance of Localizer Directional Sound Evacuation technology, even negotiating staircases. Trials have consistently shown an improvement of up to 70% in evacuation times in smoke and up to 35% without smoke. DSE can assist owners discharge their obligations under the Disability Discrimination Act 1995 and Americans with Disabilities Act – both of which outlaw discrimination on the grounds of disability – here at last is a way to guide the visually impaired to safety as well as those with normal sight.



**Signs lost in smoke**

The UK Government’s MCA has recently completed an extensive series of independent tests with University of Strathclyde in which over 400 volunteers participated in trials simulating accommodation, corridors and stairs as well as open spaces. Following these trials, the Governments of Germany & UK are proposing DSE to the United Nations for use on ships. Full details on the MCA’s website: [www.directionalsoundevacuation.com](http://www.directionalsoundevacuation.com)



Fire Industry Council  
Product Innovation  
Award



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