

Product Safety Research

At Orion, not only do we engineer and manufacture emergency flares and other safety and signaling products to the highest level of quality, we subject our products to independent testing and evaluation by respected outside organizations.

University study on emergency road flare effectiveness in enhancing the "safety zone".

An independent study conducted in 2005 by the Pennsylvania Transportation Institute, an independent research unit of Penn State University's College of Engineering, concluded that emergency roadside flares improve the safety of everyone involved at a traffic accident scene by **dramatically increasing** the safety zone:

- Right lane traffic is reduced by nearly 90%, creating better visibility around the emergency scene and expanding the width of the safety zone.
- The vehicular distance from the shoulder (e.g., the lateral separation from the disabled vehicle) is increased by more than 85%. The flares are highly effective at moving passing traffic farther from the emergency scene.
- The speed of passing traffic is lower by over 16%. The flares enable other drivers to notice the emergency ahead, thus increasing the braking distance and expanding the depth of the safety zone.

More details on this groundbreaking research are available here:

- [Safety bulletin and summary sheet](#)
- [Complete study results](#)