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The Poor Quality of Functional Safety Engineering in the Automobile Industry

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The Poor Quality of Functional Safety Engineering in the Automobile Industry

An Open Letter to the NAS team working on the project: [Electronic Vehicle Controls and Unintended Ac](#)

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Abstract:

The three decades-old problem of sudden unintended acceleration – that only occurs in cars fitted with automatic gearboxes and electronic systems directly controlling their throttles – has led us to write this letter. It explains why we believe that Government Regulators must now mandate the use of functional safety techniques in the automotive industry, based on the approach used in all other safety-related industries i.e. independent safety assessment to peer reviewed public functional safety standards.

Unlike other industries that use electronics to control safety-critical functions, the automobile industry does not employ peer-reviewed public functional safety standards, or independent safety assessors to verify conformance to such standards. Presently we are expected to simply trust whatever automakers assert about the safety of their products!

The auto industry is probably the only industry in the world allowed by Government Regulators (such as NHTSA in the USA) to behave in this way regarding risk to the Public. Certainly, the rail, aviation and medical device industries are not allowed such freedom – despite the fact that, every day, many more people are exposed to lethal hazards from automobiles.

Rather than accept responsibility automakers are content to blame drivers, even when accidents could have been caused by malfunctions of electronics based driver assistance systems. Unfortunately, for well over a decade the Regulators have demonstrably failed to intervene in this area with any effect.

If the problem of the poor quality of functional safety in the design and manufacture of automotive systems is not promptly addressed then we expect the current and next generation of vehicle electronic systems to result in considerably increased carnage on the roads in future.

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