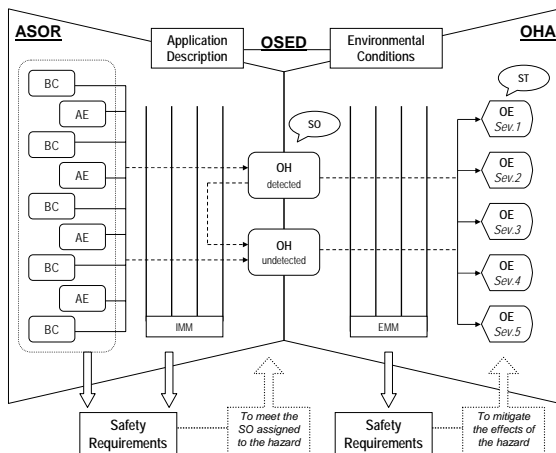




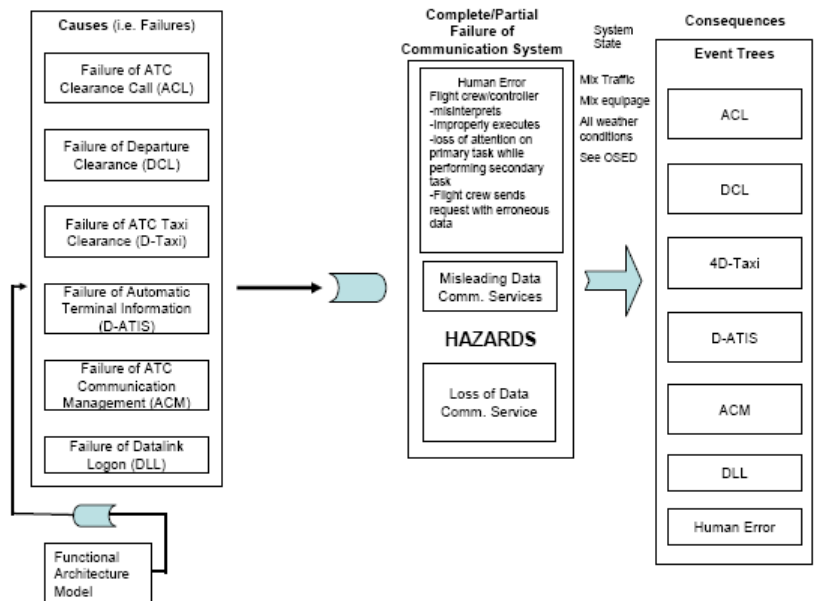
Hazard Analysis

The MITRE Corporation's Center for Advanced Aviation System Development (MITRE/CAASD), supports the Federal Aviation Administration's (FAA) Federally Funded Research and Development Center, in meeting its Safety Management System (SMS) guidelines. MITRE/CAASD is involved in evaluating safety risks associated with proposed changes to National Airspace System (NAS) automation, procedures, airspace, and facilities and conducts Operational Safety Assessments (OSAs) to define the safety requirements associated with those proposed changes. Bow-tie models, are used to identify and assess the safety risks of all potential operational hazards. Hazards are identified based on a detailed description of the change and the environmental conditions under which the application will be operating.



They are central to the model and are expressed for both the detected and undetected case at the boundary of the change. Hazards are identified based on modeling and the identification of abnormal events. Operational Hazard Assessments (OHAs) are conducted to assess the operational effects specifically attributable to the proposed NAS change and to set the safety objective for each hazard. After accounting for external mitigation means, these become the safety requirements. The Allocation of Safety Objectives and Requirements (ASOR) process is conducted to ensure that the safety requirements are addressed within the proposed NAS change. The ASOR objective is to

identify the basic causes leading to the operational hazard, along with the associated fault tree and the allocation of the lower level safety objective(s). Based on these, the corresponding safety requirements per domain are defined to meet the overall operational hazard safety objective, taking into account the identified internal mitigation means.



For more information, contact:

Fran Hoover
Information Management Specialist
+1.703.983.5912