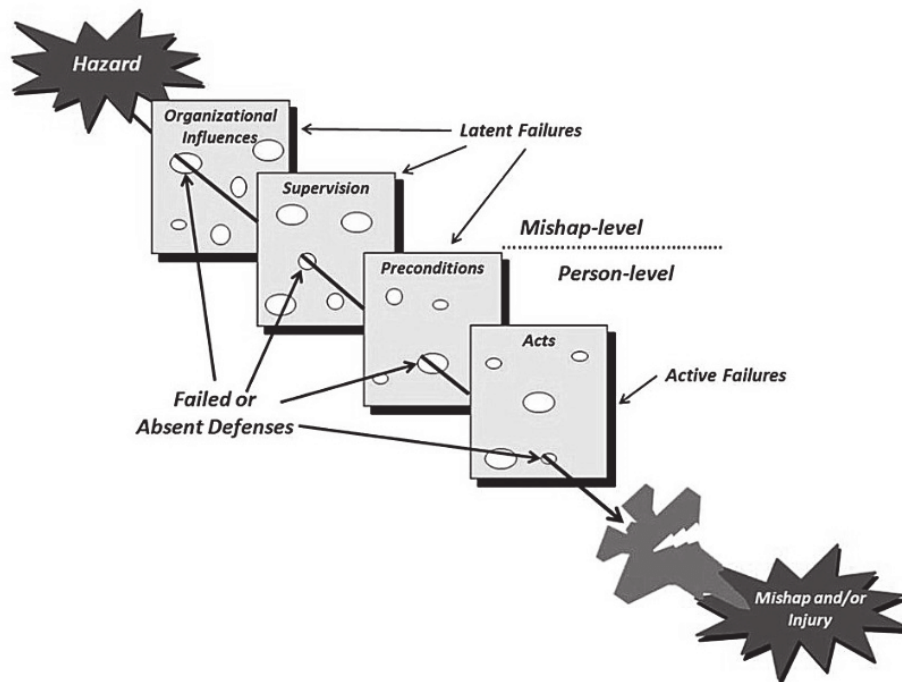


Swiss Cheese model,

one of the human factors models used in aviation (DoD HFACS 2015) (Reprinted with permission of the US Navy Naval Safety Center).

https://www.researchgate.net/figure/Swiss-Cheese-model-one-of-the-human-factors-models-used-in-aviation-DoD-HFACS-2015_fig3_311456744



Description

https://www.skybrary.aero/index.php/James_Reason_HF_Model

The *Swiss Cheese* model of accident causation, originally proposed by James Reason [in 1990], likens human system defences to a series of slices of randomly-holed Swiss Cheese arranged vertically and parallel to each other with gaps in-between each slice.

Reason hypothesizes that most accidents can be traced to one or more of four levels of failure:

- Organisational influences,
- Unsafe supervision,
- Preconditions for unsafe acts, and
- The unsafe acts themselves.

In the Swiss Cheese model, an organisation's defences against failure are modelled as a series of barriers, represented as slices of the cheese. The holes in the cheese slices represent individual weaknesses in individual parts of the system, and are continually varying in size and position in all slices. The system as a whole produces failures when holes in all of the slices momentarily align, permitting "a trajectory of accident opportunity", so that a hazard passes through holes in all of the defences, leading to an accident.