Introduction to the Heinrich Pyramid Model

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Who has heard of the “Accident Pyramid?”
How does it relate to?
Accident Pyramid History

* Herbert William Heinrich

* Began his career as an apprentice machinist and later became the Assistant Superintendent of the Engineering and Inspection Division of Traveler’s Insurance

* 1941 wrote: *Industrial Accident Prevention, A Scientific Approach*
Heinrich Proposed that...

Accidents Caused by:

- **Unsafe Acts**
- **Unsafe Conditions**
- **Unavoidable**
Heinrich Domino Theory

Injuries result from accidents, caused by:

- Faults of people
- Social environment
- Unsafe Acts
- Mechanical Hazards

Fig. 4. The unsafe act and mechanical hazard constitute the central factor in the accident sequence.

Fig. 5. The removal of the central factor makes the action of preceding factors ineffective.
Heinrich Triangle

The Heinrich 300-29-1 Model
Is Heinrich’s theory outdated or irrelevant?
Heinrich and Beyond

Kevin Harris – Northeast Utilities
“Stay ON the Grid and OFF the Pyramid!”
“Stay ON the Grid and OFF the Pyramid!”

- Event
- Significant Error
- Error with Consequence
- Near Hit
- Near Miss
- Close Call
“Stay ON the Grid and OFF the Pyramid!”

- Error with Consequence
- Significant Error
- Event
- Near Hit
- Near Miss
- Close Call

- Reactive
- Preemptive
- Proactive
“Stay ON the Grid and OFF the Pyramid!”
“Stay ON the Grid and OFF the Pyramid!”

Organizations Culture, Issues, Processes, Procedures, Guidelines and Work Practices!
HUMAN FACTORS ANALYSIS AND CLASSIFICATION SYSTEM (HFACS) A Human Error Approach to Accident Investigation OPNAV 3750.6R (Appendix O)
“Stay ON the Grid and OFF the Pyramid!”

Event

Significant Error

Error with Consequence

Near Hit

Near Miss

Close Call

Reactive

Proactive

Preemptive

Conklin  Heinrich  Reason  Dekker

Work Practices
Just Culture
Organizational Practices
Department Procedures
Administrative Procedures
Organizational Guidelines
Human Factors
Leadership

Sharp End

Blunt End
“Stay ON the Grid and OFF the Pyramid!”

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