

## **NASAHFACS Weighting Chart**

- **O** Present but not a factor, has potential for future mishaps
- Minimal impact on mishap scenario. However it is a noted departure from processes or procedures
- Moderate impact on mishap scenario. It is a departure from process / procedure however its elimination by itself would not have prevented the mishap
- Major impact on mishap scenario. Its elimination could have prevented the mishap
- 4 Causal impact if eliminated from mishap chain of events prevents its occurrence

**Acts** are errors of commission / omission, or violations. These factors are often observed at the time of the mishap.

**Preconditions** are pre-existing environmental, individual, or personnel factors associated with the mishap.

**Supervision** includes guidance, training, feedback, oversight, modeling, discipline, selection, and other expectations associated with supervisory accountability and responsibility associated with the mishap.

**Organizational** include processes, policies, resources, and climate/culture that effect unsafe supervision, preconditions and/or acts associated with the mishap.

## **How to apply NASAHFACS**

Ask: What **Acts** did the person or team do? Was it an error? Skill, Decision or Perception? (Made a decision error or pushed the wrong button, misinterpreted the gauge reading etc.) Was it a violation, i.e. deliberate departure from established process? (Violated Directives, Requirements or Procedures)

## **Determine the Preconditions:**

What conditions existed before the person committed the unsafe act? Was the physical or technological environment a factor? (Bad weather, visibility restrictions from dust / smoke, blind spots, bad location of switch / control etc.) Was it the Physical or Mental limitations of the person / Team? (Personal life issues, complacency, trying too hard to complete the task, lack of sleep, illness, prescribed medications etc.) Communications, planning or self-stressors play a factor? (Nutrition, lack of proper rest PT, alcohol, poor communications, improper planning, poor situational awareness etc.)

**Supervisor Issues:** Who knew about the preconditions but did not take steps to prevent the act? (Did the Supervisor fail to provide proper guidance, training opportunity or act as a proper role model?) Did the Supervisor improperly plan the operation and why? Did the Supervisor fail to correct a known problem with the subordinate, provide training, or stop hazardous practices? Did the Supervisor violate policy?

**Organization Issues:** Are there organizational vulnerabilities that affected Supervisory practices and/or set the stage for unsafe preconditions or acts? (Did policies, climate, Ops Tempo, inadequate risk assessments, processes or funding have a role?)

Points of Contact
OSMA / Tracy Dillinger
Human Factors Program Manager
tracy.dillinger@nasa.gov
(202) 358-1680

