

**NASAFACS**  
VERSION 1.3

National Aeronautics and  
Space Administration



**ORGANIZATION**

Organizational Culture/Climate

Organizational Operations

Organizational Resources

**SUPERVISION**

Failure to Correct Known Problem

Inadequate Supervision

Planned Inappropriate Operations

Supervisory Violations

**PRECONDITIONS**

**Environmental Factors**

Physical Environment

Technological Environment

Space Environment

**Personnel Factors**

Communications

Self-Imposed Stress

**Individual Factors**

Awareness (Cognitive) Factors

Adverse Psychological

Adverse Physiological

Medical / Mental

Perceptual Factors

**Latent Factors**

**Active Events**

**ACTS**

**Event**

Decision-Making

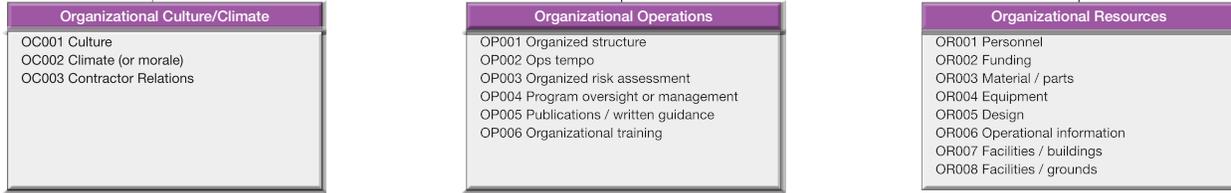
Skill-Based

Perception

Violations



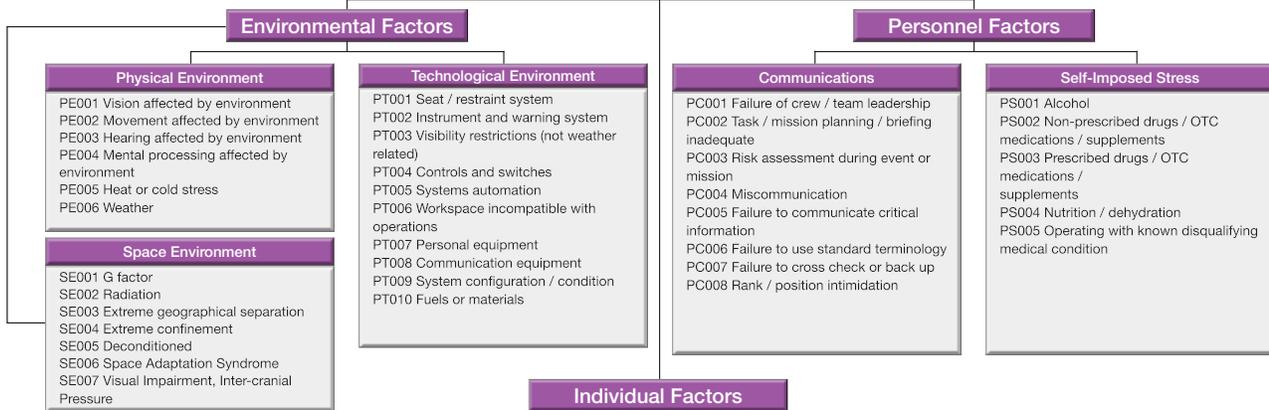
**ORGANIZATION**



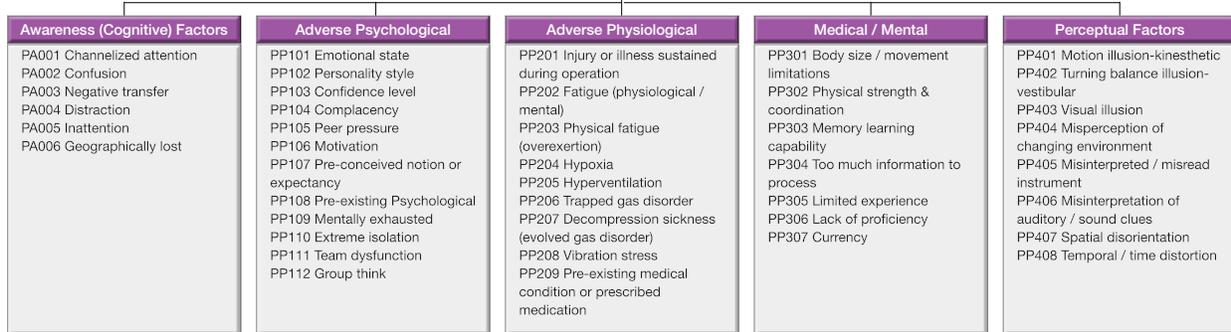
**SUPERVISION**



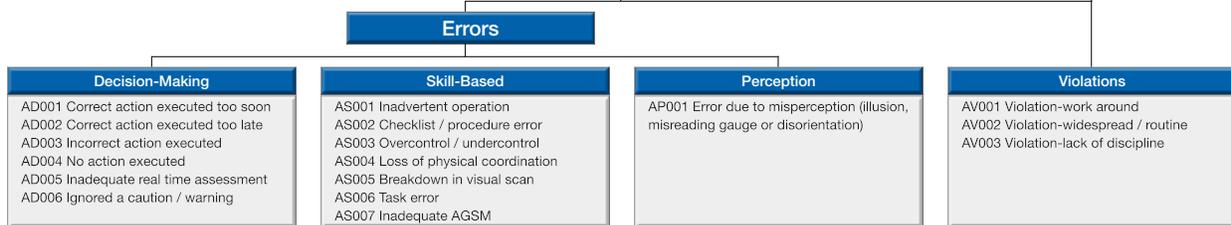
**PRECONDITIONS**



**Individual Factors**



**ACTS**





## NASAHFACS Weighting Chart

0 **Present** but not a factor, has potential for future mishaps

1 **Minimal** impact on mishap scenario. However it is a noted departure from processes or procedures

2 **Moderate** impact on mishap scenario. It is a departure from process / procedure however its elimination by itself would not have prevented the mishap

3 **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?*)

### Point of Contact

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