

## Situational Awareness

“Nearly 2 million acres of land are burning across the US in one of the worst fire seasons we’ve ever seen,” read an article published in the Business Insider in 2017. Wildland Fire Fighting is a national coordinated effort involving several agencies within the Department of the Interior and Department of Agriculture including the Office of Wildland Fire, Bureau of Land Management, National Park Service, and the U.S. Forest Service. Wildland fire fighting in the U.S. is a high reliability organization collective. “Firefighter safety, and the safety of the public, is a core value and is intrinsic in all areas of wildland fire management. [National Interagency Fire Center] Wildland Fire fighters work in dangerous environments under highly unpredictable circumstances and stressful conditions performing safety-critical tasks in the face of multiple potential hazards. Maintaining Situational Awareness is the primary Recommended Safe Practice for Wildland Fire Fighting among their “Hot Tips to Stay Safe and Healthy.” Situational awareness involves maintaining a sense of what is happening around you and comprehending how the “situation” will affect the completion of your tasks. Wildland fire fighting agency safe practices are equally applicable to hospitals and health care systems in their efforts to keep patients free from harm. Health care organizations and their patient care teams must learn and apply the concepts of situational awareness to aid their efforts to eliminate preventable patient harm.

### Situational Awareness

**Excerpted from Safety at the Sharp End**

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Situational awareness involves perception and attention to detail and is characterized by knowing what is going on around you and detecting any changes in the work environment. Situational assessment is the process an individual goes through to determine their state of situational awareness. Both fatigue and stress can retard an individual’s situational awareness; a person’s cognitive capacity and processing of new information can be reduced when they are tired or anxious as a result of stress. **Several safe care practices related to enhancing an individual’s situational awareness** have been developed by high reliability organizations like the commercial aviation industry and nuclear power plants:

1. **Conducting a pre-job briefing** with a formal assessment of any anticipated safety risks helps prepare workers to better understand the potential safety risks of a particular task BEFORE starting the work.
2. **Make sure that all team members meet physical and mental fitness-for-work requirements** assessing for fatigue, stress, drug impairment, for example, since these conditions may diminish situational awareness.
3. **Minimize distractions and interruptions** during critical tasks.
4. **Maintain a “Sterile Cockpit”** rule that prohibits patient care team members from performing non-essential tasks during safety critical processes or procedures. This procedure was developed by the U.S. Federal Aviation Administration to address human factors and reduce accidents during the 5 critical stages of flight: taxiing, taking off, initial climb, final approach, and landing.
5. An individual’s situational awareness can be assessed through personal observation using the **Situational Awareness Rating Scales (SARS)** which looks at traits like the person’s frequency of scanning the environment for changes and increasing the pace of monitoring in response to the patient’s condition.

## **Endsley’s Model of Situational Awareness**

Situational awareness involves developing a **Perception** of the available data and the elements of the environment leading to **Comprehension** of the meaning and significance of the situation, and the **Projection** of future status and events. This process of perception, comprehension, and projection facilitates an informed decision-making process, the selection of an action among options, and the performance of the chosen action. Situational awareness is influenced by environmental factors such as workload, stressors, and complexity and individual factors such as knowledge, experience, training, preconceptions, and abilities.

## **Situational Awareness Top 10 Techniques**

### **From “Be Survival” (Training to survive safety threats and dangerous situations)**

1. Identify elements in the environment, comprehend the situation, then think ahead about how it will affect your future actions.
2. Become aware of the important elements in your environment and notice potential threats. Begin to monitor, detect, and recognize multiple situational elements like objects, events, people, and environmental factors.

3. Trust your feelings. Having a gut feeling that things are not right can be the most reliable of clues to detect a problem long before we have consciously put it all together.
4. Limit situational overload that can cause distractions, increased errors, and high levels of stress.
5. Avoid complacency and assuming that everything is under control. Remain vigilant especially when things are slow or tasks are routine.
6. Time is an important factor in mastering situational awareness. The actions of individuals, task characteristics, and outside elements in the environment will affect the pace of workflow. Make the necessary changes to adjust and adapt to the changing environment.
7. Develop the skill to understand the elements in a situation through the processes of pattern recognition, interpretation, and evaluation. This higher level situational awareness will help determine how your work and goals will be affected by building a comprehensive picture of your immediate surroundings.
8. Actively prevent fatigue by adjusting your work routine and minimizing sleep deprivation by making sure you get adequate sleep. Fatigue affects your ability to watch for possible hazards and safety threats.
9. Continually assess and reassess the situation and always be prepared for changes around you.
10. Monitor the performance of others on your team and be alert for changes in their performance caused by work overload, stress, or mistakes. When changes are needed, speak up and/or help out.

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