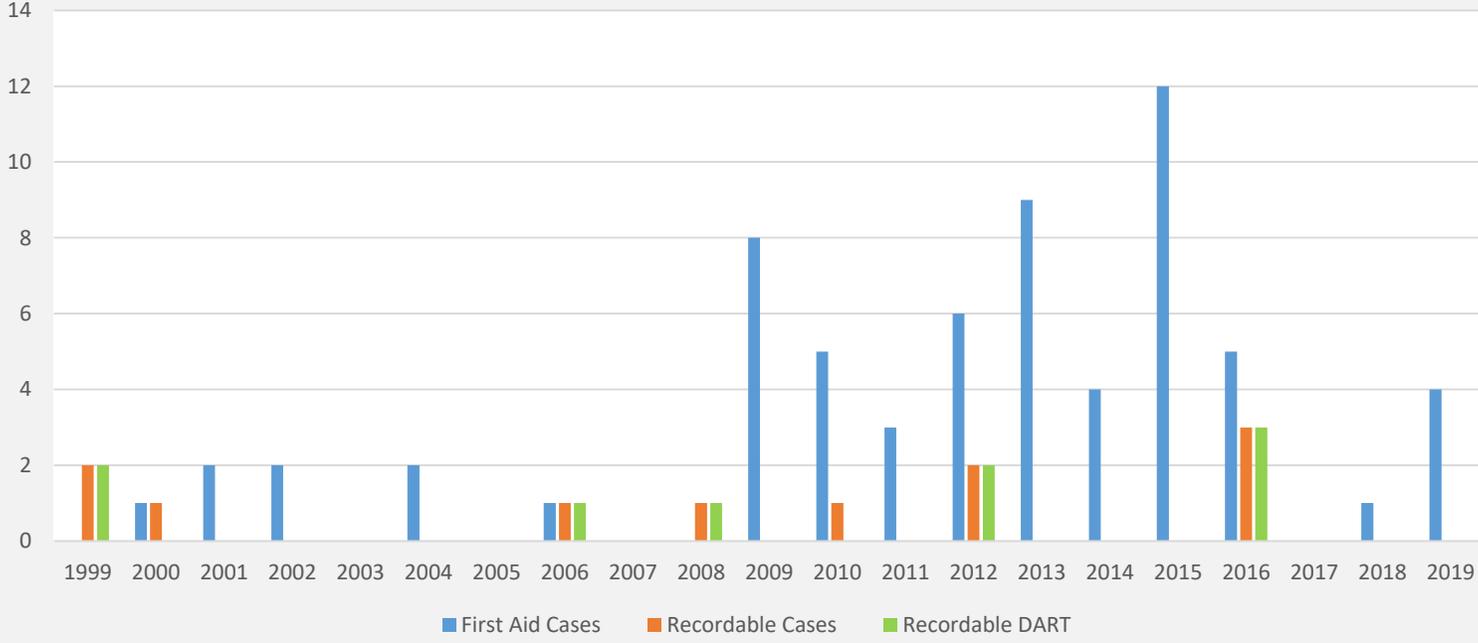


A photograph of an iceberg floating in the ocean. The tip of the iceberg is visible above the water surface, while the much larger, jagged, and textured part of the iceberg is submerged below the surface. The sky is blue with scattered white clouds. The water is a deep blue, and the overall scene is serene and clear.

Situational Awareness

Physics Division Injury/Illness Data & Non Injury/Illness Notable Events



Situational awareness is about

- Perception – gathering information
 - What do I know
 - What should I expect
- Understanding the information
 - What am I seeing?
 - What is different?
 - What am I missing?
- Projection
 - What could distract me?
 - If conditions change then what?
 - If I come in contact with a hazard? What is the worst that can happen and are the controls robust enough to prevent it?



Recent Events Where Lack of Situational Awareness Contributed to Outcome

- iMac computer – focusing on troubleshooting the cause of the overheating, loss sight of the possibility of making contact with an energized component.
- FDU shock event – during troubleshooting loss sight of the possibility of making contact with an energized component if they broke the plane of the opening.
- Electrical shock plugging in equipment – reaching blindly into a void to re-connect a wire, they loss sight of the possibility of making contact with an energized component.
- Common theme in all 3 scenarios only focusing on the task blinds you to potential hazards that could result in a serious injury or death.

SLIM: your defense against loss of Situational Awareness

- **S**top: Engage your mind before your hands. Visualize the task at hand to understand what needs to be done before you start.
- **L**ook: Observe the work area to find the hazards.
- **I**dentify: Point out hazards and the effect that they could have on you or your co-workers. Are the controls in place adequate to protect if me if we come in contact with the hazards? Can we complete the work safely?
- **M**anage: What are the options to mitigate any hazards before starting? Can we proceed as planned?

STOP if there are any questions regarding the area or task at hand!

Hidden Response and Hazards

- We can easily become distracted with the demands of the job and external stimuli. This can blind us to those hazards and hidden responses that surround us each day.
- Some common hazards faced are:
 - Electrical and electronic devices (shock, arc flash, etc)
 - Cryogenic delivery systems to include relief valves (extreme temperature, sudden loud noise, stored energy, etc)
 - Magnetic fields (fields are not vertical but three dimensional don't be fooled by the boundary ropes)
 - Thin windows (possible rupture are a significant noise hazard, stored energy)
 - Laser systems (stray beam, reflective surfaces, fire hazards, etc)
 - Falling object protection (tools, debris, equipment can be dropped or fall from walking/working surfaces)
 - Stored energy systems (don't take chances LTT , energy sources pneumatic, pressure, kinetic, electrical, etc)

Take Nothing For Granted Expect Systems To Fail.