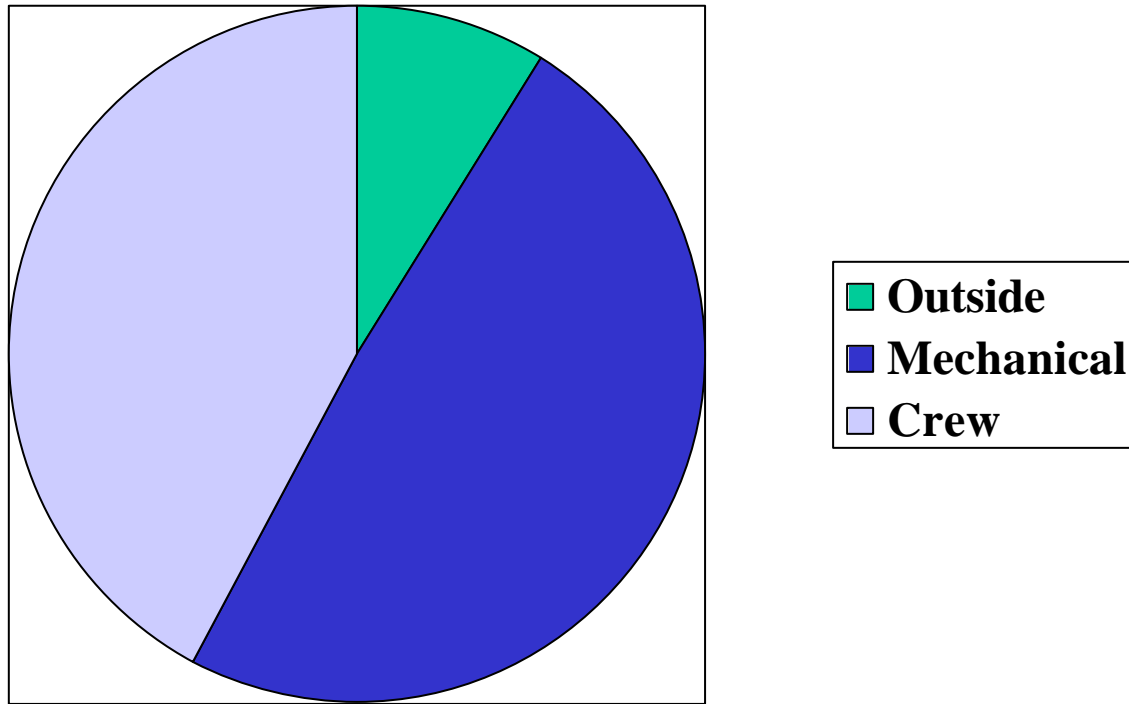


Situational Awareness in Single Pilot Operations

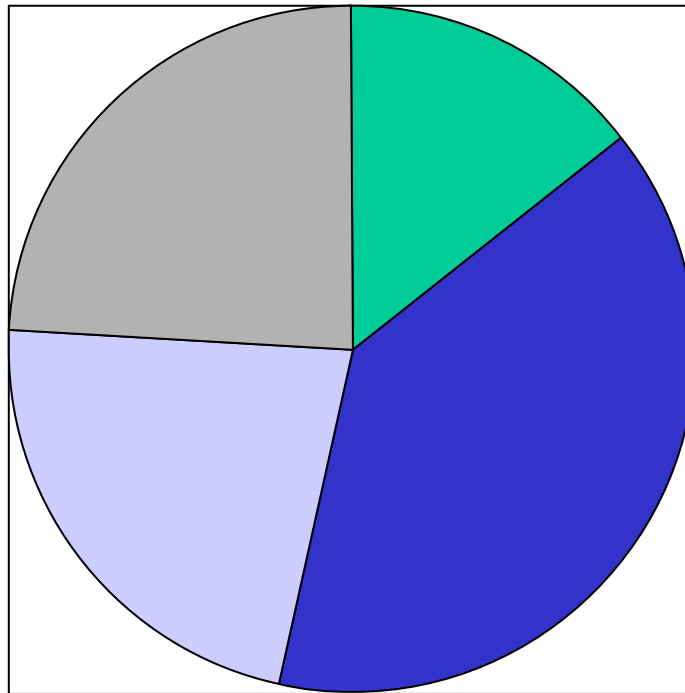
Norman MacLeod





Turboteams

Piper Navajo - Event Primary Causal Factor



Piper Navajo - Maintenance and Crew Failure



-  **Maintenance (Pre)**
-  **Mechanical**
-  **Crew (Pre)**
-  **Task Mgt Failure**

What the hell is Situational Awareness?

- Origins in military fighter pilot training
- Re-badging existing concepts?
- Oh, all right then....SA is knowing where you are going to be and confirming that it is where you want to be....or doing something about it.

Stages in SA

- Assimilate Information
- Process Information
- Project Information

- And take the necessary action

Assimilating Information

- Cessna 208 Caravan
 - Ice on the aircraft
 - FOB asked 3 times if the pilot wanted aircraft deiced
 - Icing conditions forecast

Processing Information

- Fuel Management
 - Putting enough in
 - Using it properly

Projecting Information

- PA 31-350 - 11 Apr 99
 - Icy Runway
 - Tail wind

Precursors?

- Awareness of Risk
 - PA31-350
- Awareness of Performance
 - Sightseeing (PA31-350, Cessna 208)
 - Payload (Malibu)

Solutions

- More CRM!
- Systems Knowledge
- Procedural Knowledge
- Performance Knowledge
- And more CRM....