



Confined Space Monitoring System for Safe & Efficient Depot Operations



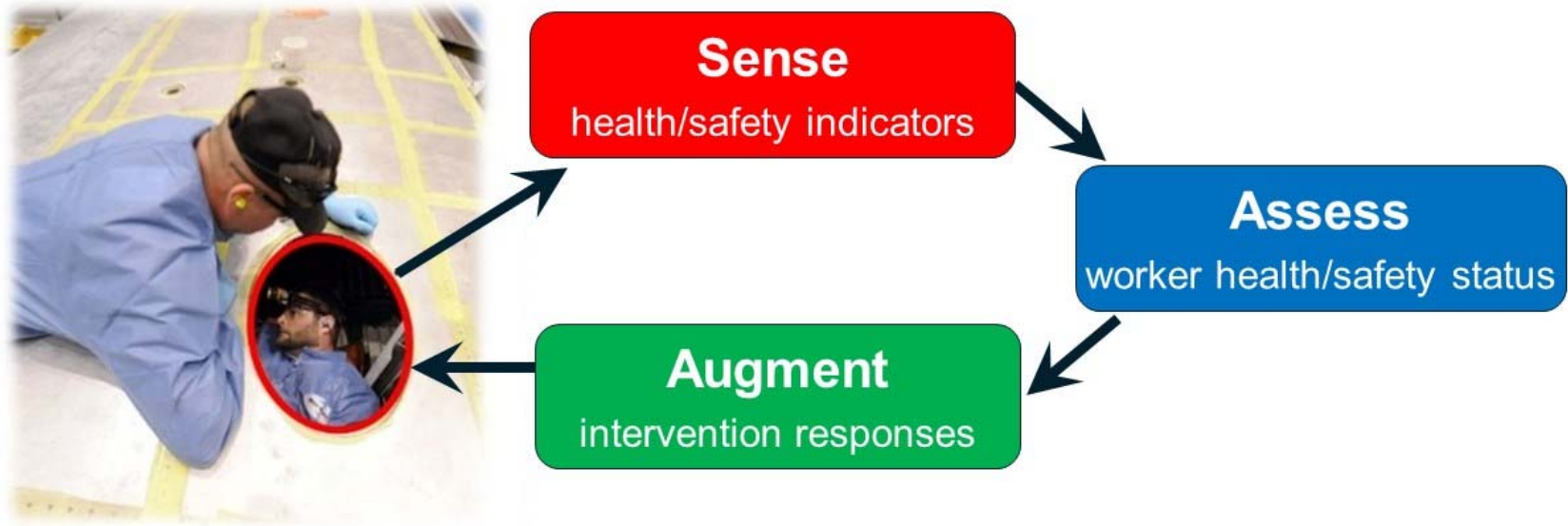
Problem Statement

- Confined space monitoring is an important practice **mandated by OSHA** to protect worker health & safety
 - Adds workload & manpower demands
 - Thousands of hours spent each year to monitor confined space work at an Air Logistics Complex (ALC)
 - While effective overall, **improvement opportunities exist** to better protect workers in confined spaces



Concept Overview

- **Unobtrusive sensors** to monitor worker health and safety while operating in confined spaces



- **Integrated data display** for alerting & intervention
 - Monitor health/safety indicators for all confined spaces
 - Enact preventative measures
 - Accelerate emergency response

SBIR R&D Products

- **Sensor design** specifications well-suited to constraints of confined spaces
- **Data network infrastructure** design that meets government IT requirements and scalability needs
- **Algorithms** for assessing sensor data and facilitating appropriate health/safety interventions
- **User monitoring station design** & prototype system test/evaluation results

Summary of Benefits

- **Greater Reliability to Ensure Worker Safety**
 - Detect deteriorating health/safety conditions
 - Prevent and respond to issues faster & more reliably
- **Improved Performance & Work Efficiency**
 - Reduce worker downtime
 - Reduce radio exchanges when entering/exiting spaces
 - Easier access health/safety data across depot
- **Cost Savings**
 - Reduce manpower needed to manually perform confined space monitoring
 - Reduce overall maintenance time due to better work efficiency and reallocation of manpower



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