



Feedback to Pilot Utilizing Physiological and Navigational Monitoring

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Summary

The University of North Dakota has developed systems and methods for improving situational awareness, fatigue management, and navigation via tactile feedback to vehicle operators. The tactile feedback can be given to a vehicle operator in response to data gathered from navigational and physiological sensors. Alerts and warnings can be provided inside the cockpit and remotely when data is outside pre-established tolerances. Unique alert vibrations can be provided to instruct the pilot to make a particular aircraft maneuver.

Advantages

- System provides and additional means of communicating with pilot that does not distract their vision or hearing
- Improved situational awareness and fatigue management
- Tactile feedback including vibrations can be provided to give pilot alerts
- Vibration magnitude and duration can be adjusted based on the type and severity of alert

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