FOCUS

Fatigue Optimized Cognition Under Stress

OTHER FUNCTIONS:

- Human performance support & enhancement
- Maximizing effective span of supervisory control
- Modeling & Simulation for ops planning
- Comprehensive situation awareness
- Extending operational effectiveness
- Managing operator workload
- Assessment of operator fatigue
- Individualization through modeling

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Goals:

- Enhanced Cognitive Ability
- Increased Alertness
- Heightened Vigilance
- Improved Learning

Technical Approach

Control System

Initial State → Intervention Controller → Fatigue Mitigation & Augmentations → Physiological & Behavioral Measurements
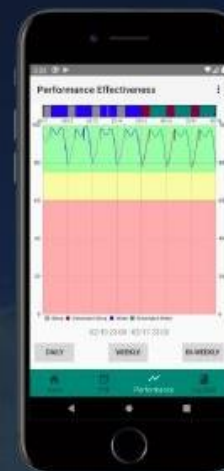
Capabilities

Mobile Fatigue Application:
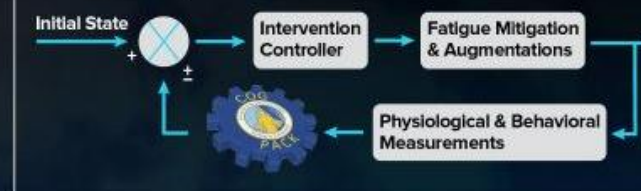Conducts real-time individualized fatigue assessments

- Performance Effectiveness Graph
- Sleep information
- Consumption information
- Psychomotor Vigilance Test (PVT)

Operational data has provided insights for better fatigue mitigation

Next Steps...

- Incorporate physio-data input & individualized predictions with consumption information, reaction time data, & stable individual difference information

- Conduct analyses with an AWAC squadron & fighter pilots