

Operators are reaching the limits of cognitive bandwidth.

Modern missions demand simultaneous processing of multiple information streams while maintaining situational awareness and making rapid, high-stakes decisions. As cognitive load increases, decision speed, accuracy, and prioritization degrade—introducing risk at the exact moment precision matters most.

What if you could measure your operator's cognitive condition and translate the data into actionable insights to get the best out of them?

NeuraLensXL uses mathematically-backed AI models and operator brain wave data to continuously assess their cognitive readiness and detect degradation in performance (*attention, working memory, and decision-making capacity*).



NeuraLensXL makes operator cognitive performance visible, measurable, and *mission-ready in real time*.



Real-time Cognitive Visibility

Live insight into operator cognitive state across all environments.



Error Prevention at the Source

Detects degradation before it impacts mission outcomes.



Sustained Mission Performance

Keeps operators performing at peak under pressure.



Actionable Cognitive Intelligence

Converts brain-state data into real-time, usable signals.



ACCELERATOR

Sense. Assess. Improve human performance.

The operator's primary constraint is not capability— it is cognitive capacity under stress.

Mission performance degrades not because operators lack skill, but because they exceed their cognitive limits in high-tempo, high-stress environments without real-time insight or support.

KEY USE CASES:

Intelligence Analysis + Watchfloor Operations

Enhance performance of analysts monitoring real-time intelligence feeds to make recommendations or take action (SIGINT, GEOINT, cyber, ISR).

- Analysts face continuous high-volume data streams which can lead to cognitive overload and missed indicators
- NeuraLensXL detects attention drift and fatigue during long watch shifts
- Enables evaluation and optimization of tooling and information feeds by providing feedback on cognitive load for operators.

Air Traffic Control + Aviation Operations

Monitor controllers and pilots during high-density or abnormal operations such as peak air traffic periods, emergency rerouting, or system outages.

- Tracks attention, workload, and decision fatigue
- Dynamically filters non-critical alerts, escalates high-priority conflicts, and suggests decision support cues
- NeuraLensXL reduces human error in safety-critical environments, maintains performance under sustained workload, and enhances airspace safety and efficiency

Federal Law Enforcement + Border Security

Support agents conducting border screening, surveillance, and tactical operations.

- Officers must maintain vigilance across long, repetitive, high-stakes shifts
- Fatigue and cognitive saturation lead to missed contraband indicators or misidentification of threats
- NeuraLensXL enables real-time vigilance monitoring for operators by providing adaptive alerting (highlighting suspicious behavior when attention drops), and workload redistribution across team members

Warfighter

Get the best out of every operator in their training/ simulation evolutions—and the best decisions out of every team in execution.

- NeuraLensXL creates a continuous loop: *Train > Measure > Optimize > Execute > Adapt*
- NeuraLensXL provides a quantitative baseline of human cognitive performance. This enables creation of tailored training programs based on individual cognitive profiles
- Continuous improvement loops where training evolves with the individual