1. Short formal title of the technology/innovation (Click for [the Infographic of AgenticOS-ISR](#))
AgenticOS™-ISR: Google Reality for Lost Intelligence

2. A concise 1-5 paragraph synopsis (Click for [Video Summary of AgenticOS-ISR](#))
AgenticOS™-ISR is a transformative edge-AI software designed to recover the "lost intelligence" that occurs during high-stress drone operations. Due to the "cognitive bottleneck," pilots often miss critical visual details while focusing on flight mechanics and survival. AgenticOS™-ISR functions as a "Google Reality" engine for the battlefield, ingesting live video feeds and instantly indexing the physical world into a searchable, understandable narrative, ensuring that no potential threat or intelligence asset goes unnoticed.

Functioning as a digital co-pilot, the system utilizes "Real-time Video Understanding" to act as a second brain that never blinks. It moves beyond simple recording to create a timestamped, semantic memory of the entire flight. Operators can interrogate this data using natural language "Cognitive Queries"—asking questions like "Analyze the threat level of that vehicle"—allowing the AI to assess context, behavior, and intent instantly, without the operator needing to fly closer or break their focus on navigation.

Critically, AgenticOS™-ISR converts high-bandwidth video data into low-bandwidth intelligence text. By synthesizing visual observations into text reports smaller than 1KB, the system ensures that vital reconnaissance reaches command even in jammed or comms-restricted environments where streaming video is impossible. It runs entirely offline on standard ground control laptops, turning existing drone fleets into intelligent teammates capable of understanding and reporting on the world around them.

3. What distinguishes your capability from other available capabilities?
AgenticOS™-ISR distinguishes itself by shifting the paradigm from "Object Detection" to "Cognitive World Understanding." While competitors' AI might simply identify a "Car" with a confidence score, AgenticOS™-ISR understands the scene's semantic context (e.g., "A black civilian sedan with no external weapons visible is proceeding West"). This allows for "Semantic Targeting," where operators can search for complex concepts (e.g., "soldier holding an RPG") rather than just visual shapes. Uniquely, this "Google Reality" capability is entirely **Edge-Native** and **Hardware Agnostic**; it processes all data locally on the ground station without cloud connectivity, enabling immediate deployment on any existing drone platform or camera system.

4. Technical Readiness Level (TRL)
TRL 6/7
Justification: The technology is fully developed as a software solution running on standard laptops. The system has successfully completed live demonstrations in a relevant environment for a senior intelligence officer at the Pentagon and partner companies. Operational fielding within a DISA/USCYBERCOM facility is currently planned to validate the system in an operational setting and achieve TRL 7.

With its core technology, we (a group of 6 companies) are responding to a DIU call on hypersonic defense.

5. Any pertinent presentations, datasheets, and/or white papers

- **Video Presentation:** Click for [Video Summary of AgenticOS-ISR](#)

- **Infographic:** Click for [the Infographic of AgenticOS-ISR](#)

- **Patent Reference:** USPTO 19/533,193 (PNN AgenticOS™ - **Digital Watch-Stander:** Video Agent of World Understanding).

Contact: Gewei Ye, PhD, CEO | M: 410 251 2823 | E: cto@pnncapitalus.com | ex-IBM | ex-GD Chief | ex-Hopkins Faculty

Yeswici LLC | UEI: GCMDC97EKPL9 | CAGE: 6HKU6 | Web: https://ranty.net | Maryland, USA | Builder and Owner of AgenticOS for AI Drones ISR-C2-PS | AgenticOS-ISR: Google Reality for Lost Intelligence