EXECUTIVE OVERVIEW: THE JOR-BAYESIAN FUSION FRAMEWORK

JOR is a structured probabilistic triage framework designed to separate object validation (SOP) from origin assessment (NHP), enabling consistent and testable evaluation of UAP cases under uncertainty.

1. What problem is this solving?

UAP analysis often faces challenges related to fragmented data and interpretive bias. Cases may be dismissed due to lack of sensor confirmation despite credible witnesses, or over-weight ambiguous sensor data without sufficient context.

This framework addresses that by enforcing a two-step evidentiary structure:

- **Step 1: Solid Object Probability (SOP)** – Establishes the likelihood that a physically real object was present, based on the convergence of witness accounts, sensor data, and environmental conditions.
- **Step 2: Non-Human Probability (NHP)** – Assesses the likelihood that the observed characteristics are not explained by known human systems, conditional on a sufficiently supported SOP.

2. What inputs does it require?

The model processes standardized scores across three primary evidence pillars:

- **Witness Credibility (C):** Observer training (e.g., pilots, military), number of independent observers, and supporting documentation (e.g., logs, reports).
- **Environmental Clarity (E):** Visibility, weather conditions, lighting, and event duration.
- **Physical / Sensor Evidence (P):** Radar, IR/FLIR, or other instrumentation, including modifiers for documented anomalous flight characteristics.

3. What assumptions are built into the model?

To maintain transparency and conservative interpretation, the framework includes the following safeguards:

- **Configurable Skeptical Prior:** Default prior (0.8 conventional / 0.2 unexplained) reflecting the assumption that most cases are ultimately resolved as known phenomena. This can be adjusted for sensitivity testing.
- **Calibration Constant (K):** A stabilizing factor (default K = 0.20) that prevents strong object confirmation (high SOP) from automatically implying anomalous origin.

- **Hard Caps:** Upper limits on scoring for lower-quality data (e.g., anonymous reports, uncorroborated media) to prevent probability inflation.

4. How should the output be interpreted?

- **It IS:** A structured, probabilistic measure of how multi-source evidence updates a baseline assumption under uncertainty.
- **It IS NOT:** A definitive claim of non-human origin, nor a substitute for investigation or physical analysis.
- **Posterior Probability:** Represents the degree to which the available evidence shifts the baseline assumption, indicating increasing inconsistency with known explanations as values rise.

5. What would cause the model’s conclusions to change?

The framework is designed for iterative reassessment as new data becomes available:

- **Multi-Sensor Convergence:** Independent confirmation across multiple sensor types increases evidentiary weight.
- **Documented Flight Anomalies:** Observations of performance characteristics beyond known systems increase anomaly weighting.
- **Parameter Adjustment:** Priors, weights, and scoring inputs can be modified to test assumptions and evaluate model sensitivity.