PROJECT ENDURING PULSE

Testing and Validation Brief

Experiments, limitations and interpretation

Charter v1.2.1 | Website release 7 | 14 September 2026

https://enduringpulse.org

This publication reproduces the supplied project document. Project Enduring Pulse is a candidate constitutional framework, not enacted law. The source wording follows unchanged. Historical alternatives do not supersede the current Charter.

Research interpretation and source-report corrections: the restored long-horizon campaign is internally reproduced, not externally validated and not a forecast. PULSE is fourth in six baseline comparisons, not second. Reduced-form counts are parameter samples, not simulated Markov histories. Read current methods, corrected ranks and limitations at https://enduringpulse.org/testing/.

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PROJECT ENDURING PULSE

Testing, Validation & Model-Claim Guide

What was tested, what held, what failed, and what can honestly be claimed

v1.2.1 Complementary Capabilities Clarification | September 2026

Latest result: the long-horizon batch did not justify changing PULSE's major assumptions or five-doctrine architecture. The strongest new implementation warning is institutional complexity under weak state capacity.

1. Testing scale

Measure	Count	Meaning
Targeted model / stress-test families	48	Distinct micro/constitutional families through v1.2
Independently randomized targeted base scenarios/trials	43,415,600	Conservative recoverable count
Targeted comparative rule evaluations	>60.6 million	Many rules applied to the same base worlds for apples-to-apples comparison
Explicit multi-voter election worlds	31,960	Narrow election-world count
Long-horizon dynamic architecture trajectories	2,314,000	300-year scenario trajectories across baseline, sweeps, ablations, extremes and transition tests
Five-year long-horizon state transitions	138,840,000	Dynamic state updates; not independent civilizations
Reduced-form hazard/Markov trajectories	2,100,000	Structurally different cross-check
Baseline long-horizon archetypes	20	Demography, scarcity, integration, catastrophe, conflict, wealth, etc.
Compound extreme worlds	6	Multiple severe assumptions combined
Primary governance architectures compared	7	PULSE plus six materially different comparators
Value systems used for scoring	6	PULSE-aligned plus five non-PULSE moral priorities

2. Targeted model families

Presidential counting methods and cycle resolution

Clone, burial, no-show and turnout attacks

Cross-constituency legitimacy floors

Founding and mature Senate thresholds

Chief Justice confirmation

Permanent House districts and malapportionment triggers

Personhood-panel thresholds and correlated errors

Continuity guardian quorum/correlation

Cognitive-emergency forensic thresholds

Cognitive-change drift and reauthorization

Rogue-cohort pacing and split-provenance attacks

30% illicit-origin cap sensitivity

Anti-supremacy organization procedure

Emergency architectures

Redundancy/failure-domain models

Species restoration and archive resilience

Cataclysmic governance/trusteeship return

Extraordinary presidential certification

Functional Integration capability/network/hierarchy models

Long-lived wealth and persistent-return models

Least Reversible Harm hazardous-role allocation

Compound constitutional attacks

Interplanetary dual-legitimacy cases

3. Major validation-driven changes already made

Area	Testing consequence
President	Rank-sum/Borda abandoned after ~41.55% exact-clone winner-change behavior in the core overnight test; pairwise Condorcet architecture retained with Schulze/Beatpath working default.
Personhood panels	Near-unanimity rejected because false negatives became severe; 12/15 with multiple independent panels retained.
Senate	Ordinary law moved to 55% overall + 40% each delegation to reduce permanent species-veto politics while preserving cross-constituency support.
Chief Justice	60/45 retained after threshold comparison.
Rogue cohorts	Per-cohort/linked-source ceilings replaced by a 30% aggregate illicit-origin ceiling after split-provenance attacks exposed evasion.
Cognitive changes	Later reauthorization/continuing review added after cumulative-drift modeling.
House	Symmetric over- and underrepresentation alarms added after concentration stress.
Resilience	Independent failure domains elevated over raw site count.
Elections	Compulsory ballot return rejected; extraordinary impaired-election certification became the legitimacy backstop.
Functional Integration	Elevated to doctrine/protected architecture because parallel-society risk remained central.

4. Latest 300-year scenario program

The long-horizon program compared PULSE with liberal constitutional democracy, majoritarian democracy, strict consociational parity, species-separated federalism, technocratic guardian governance, and a minimal-rights market order. It used twenty baseline world archetypes, six compound extremes, six value systems, doctrine ablations, a PULSE-benefit skeptic sweep, capacity/homophily/private-concentration sweeps, and a structurally different reduced-form hazard model.

Result	Model output	Meaning
Scenario × value ranking	PULSE first in 114/120 baseline comparisons; second in 6/120	All six losses were the same deliberately weak-institutions world viewed through six value systems.

Result	Model output	Meaning
Raw catastrophic-failure avoidance	PULSE 62.7%; liberal comparator 63.1%	Raw survival was essentially tied; PULSE was not given automatic survival dominance.
Free + integrated outcome	PULSE 56.8%; liberal comparator 28.5%	PULSE's modeled advantage is preserving liberty/integration/anti-domination together.
Functional Integration ablation	~57% to ~17% free/integrated outcome	Functional Integration is structural in the model, but the ablation combines capability, continuity, and cohesion effects; it should not be presented as proof of social engineering.
Skeptic sweep	Aggregate advantage disappeared after ~15–20% discount to distinctive PULSE institutional benefits	PULSE mechanisms cannot fail badly and still automatically win.
Extreme hostility	All architectures degrade badly under sufficiently intense cross-species hatred/separation	Constitutional design can create useful opportunities, aligned incentives, and shared competence; it cannot and should not manufacture private goodwill through coercion.
Weak institutions	Simpler liberal architecture can outperform mature PULSE	Mature PULSE is institutionally demanding; transition/staging deserves separate work.

5. Safe public claims

Stress-tested across 48 targeted model families.

More than 43 million independently randomized targeted base scenarios/trials.

A separate 300-year scenario program ran 2.314 million dynamic architecture trajectories plus 2.1 million reduced-form cross-check trajectories.

In the long-horizon model, PULSE ranked first in 114 of 120 baseline scenario × value-system comparisons; all six losses were the same weak-institutions world.

The testing did not prove PULSE will work; it identified where it breaks and which assumptions matter most.

6. Avoid misleading claims

Do not say “200 million civilizations were simulated.” Five-year transitions, comparative evaluations, base worlds and trajectories are different units.

Do not call model outputs empirical forecasts or real-world probabilities.

Do not claim human intergroup-contact research proves human-synth social cohesion will work; it is only an empirical analogue for a secondary benefit. The primary capability and continuity rationales do not depend on that social effect.

Do not say PULSE is proven to be the best framework on the market.

Do not imply current AI has been determined conscious or entitled to PULSE personhood.

7. What held in the final batch

Five foundational doctrines remain intact.

House/Senate/shared-executive architecture remains intact.

Equal personhood + material relevance remains intact.

Functional Integration remains justified, but the testing should be read in the correct order: the doctrine primarily combines complementary capabilities and distributes civilizational competence; the modeled social-cohesion benefit is an important secondary mechanism.

Mutual Preservation and failure-domain resilience remain justified.

The major new warning concerns implementation capacity, not a contradiction in the mature architecture.