



MINDFORGE INTELLIGENCE
MARKET STATE DETECTOR

REGIME DATA FOR YOUR STACK

Orthogonal • Validated • Daily • Pre-Market

A daily market regime classification built on environmental inputs completely Environmental signals, market-confirmed. 12+ years validated. Rules-based and fully auditable.

FOR INSTITUTIONAL DATA BUYERS

FOR INSTITUTIONAL RESEARCH ONLY
Mindforge Intelligence, LLC • Stamford, CT

WHAT THE DATA IS

Understanding the dataset before evaluating performance

INPUTS

- ▶ Solar and geomagnetic activity data sourced from **NOAA and NASA** monitoring networks
- ▶ **Zero price-derived inputs.** No VIX, no options flow, no sentiment, no macro indicators
- ▶ Environmental stress indicators that are structurally uncorrelated to everything in a traditional quant stack

PROCESSING

- ▶ **Rules-based, not ML.** No model drift, no retraining, no black box. Fully auditable rule set
- ▶ Fixed thresholds with rolling 252-day normalization. Walk-forward only
- ▶ Versioned manifests with full audit trail. No hindsight tuning

OUTPUT

- ▶ **5 daily regime states** (Calm, Turning, Stress, Volatility Spike, Systemic Stress)
- ▶ Single classification per day. No intraday noise. Clear regime signal
- ▶ 12+ years of historical classifications included for backtesting

DELIVERY

- ▶ **Delivered pre-market** every trading day
- ▶ **API** (REST, JSON) · **Email** (rich HTML) · **CSV** (daily drop)
- ▶ **Webhook** on state change (<5 min latency)

THE 5 STATES

2012–2024 • 12+ Years • Walk-Forward Validation • 2025–2026 Out-of-Sample

STATE	WHAT IT CLASSIFIES	PRECISION	HITS/TOTAL	FP	FREQ/YR
Systemic Stress	Crisis-level regime: COVID, carry unwind, tariff shock	100%	9/9	0	0.7
Volatility Spike	VIX expansion without systemic collapse	93%	13/14	1	1.1
Turning	Regime pivot point: transition between states	95%	58/61	3	4.7
Stress (Advisory)	Elevated conditions, advisory-level warning	60%	9/15	6	1.2
Calm	Benign regime: reduced risk posture appropriate	Meta	–	–	~71% of days

100%

12+

DAILY

0

Systemic Stress
Precision
Zero false positives

Years Validated
Walk-forward, no hindsight

Pre-Market Delivery
Every trading session

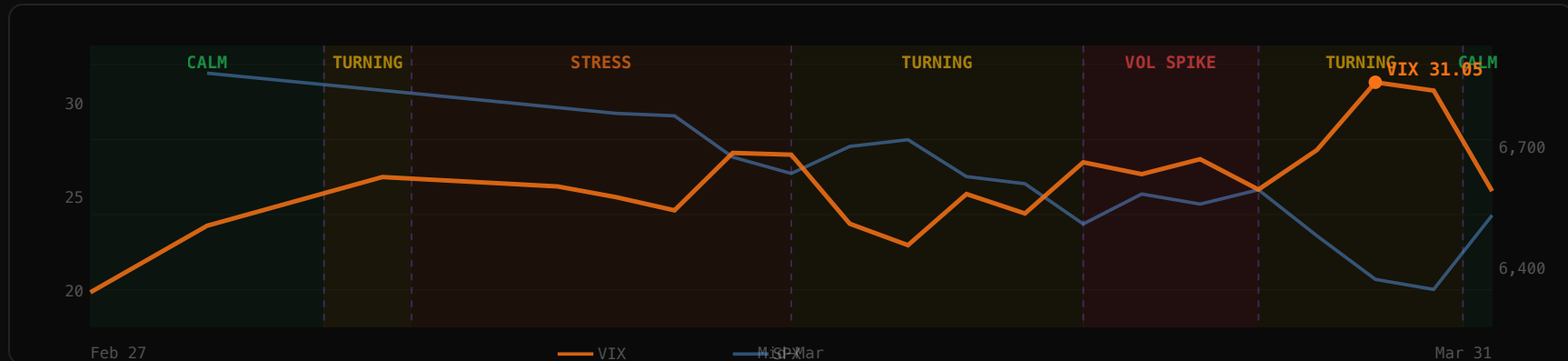
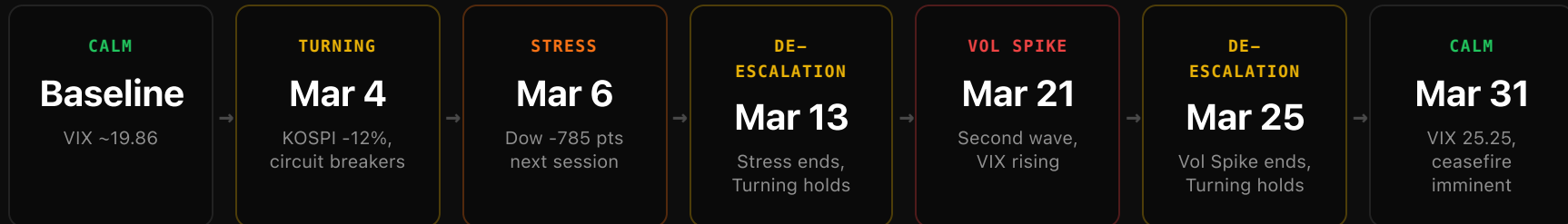
Price-Derived Inputs
Fully orthogonal

LIVE PROOF

Out-of-Sample • Production Classifications • Not Backtested

IRAN SHOCK – MARCH 2026 (CLASSIFIED LIVE, PRE-MARKET, FULL ROUND-TRIP)

The system navigated two separate stress waves, called both de-escalations, and restored Calm before the ceasefire.



Every transition delivered **pre-market**. VIX peaked at **31.05** (Mar 27). Full crisis navigated over **27 days**. Not a backtest. Timestamped production classifications using inputs **orthogonal to traditional risk inputs**.

HISTORICAL EPISODE LEAD TIMES (FROM CANONICAL RECORDS)

10

Days Early

COVID-19 (2020-02-24)
Before first s&p 500 circuit
breaker

1

Day Early

Aug 2024 (2024-08-02)
Before flash crash / vix spike
to 65

22

Days Early

Apr 2025 (2025-03-06)
Before tariff-driven vix peak

5

Recovery Lead

Iran 2026 (2026-03-31)
Calm before VIX normalized

WHY THIS DATA IS DIFFERENT

01 STRUCTURALLY ORTHOGONAL

Not another VIX derivative, sentiment scraper, or options-flow signal. The inputs are environmental data from government monitoring networks.

Zero correlation to price-based signals in a standard quant stack. This is a genuinely independent axis of information.

02 DAILY VALUE, NOT JUST CRISIS

Calm covers 71% of trading days. The daily regime feed has value even when markets are quiet.

State-aware hedge sizing saved ~21% of annual hedge budget in backtests (2012-2024). Crisis detection is the safety net underneath.

03 DUE DILIGENCE READY

12+ year backtest with strict walk-forward validation. Episode-level scoring, not cherry-picked days. No hindsight tuning.

Versioned rule manifests, full audit trail, and compliance-safe documentation package ready for your evaluation process.

04 REGIME GRANULARITY

5 distinct states, not a binary risk-on/risk-off toggle. The system distinguishes a volatility spike (VIX expansion) from systemic stress (crisis-level).

This granularity matters: Oct 2024 was classified Volatility Spike, not Systemic Stress. No forced liquidation on a temporary spike.

EVALUATION & INTEGRATION

90-DAY EVALUATION

- ✓ Full production feed for 90 days
- ✓ 12+ years historical data for backtesting
- ✓ Pre-defined scoring rules and success criteria
- ✓ No commitment beyond pilot period

DELIVERY OPTIONS

- ▶ **API** — REST/JSON, historical + live endpoints
- ▶ **Email** — Rich HTML, daily pre-market
- ▶ **CSV** — Daily drop (S3, SFTP, email)
- ▶ **Webhook** — State-change push (<5 min)

DUE DILIGENCE PACKAGE

- ✓ Versioned rule manifests with audit trail
- ✓ Episode catalog with exact dates and values
- ✓ Walk-forward methodology documentation
- ✓ Compliance-safe framing (research-only, no advice)

SAMPLE OUTPUT (API RESPONSE)

```
{
  "date": "2026-03-09",
  "state": "volatility_spike",
  "previous_state": "stress",
  "delivered_at": "2026-03-09T07:28:00-05:00",
  "confidence": "high",
```




MINDFORGE
MARKET STATE DETECTOR

START YOUR EVALUATION

90 days, production feed, full historical data. Pre-defined success criteria. No commitment beyond the pilot.

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"ORTHOGONAL INPUTS, VALIDATED AT THE EPISODE LEVEL, DELIVERED DAILY BEFORE THE BELL."

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