

NTRRPA/AI GEN AI STRATEGY

Strait of Hormuz Tanker Delay Forecast

Forecasting potential disruptions to oil tanker movements through the Strait of Hormuz over Q1–Q2 2026 due to escalating US–Iran tensions and IRGC naval operations.

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NTRRPA/AI GEN AI STRATEGY

"Based on historical disruption data and current trends, forecast the potential delays in oil tanker movements through the Strait of Hormuz over the next 2 quarters due to escalating US–Iran tensions."

Executive Summary

135

WEEKLY TRANSITS
Down from 182 (–26%)

5.6d

AVG DELAY Q1
Probability-weighted

2.9×

VLCC COST MULTIPLIER
\$1.8M → \$5.2M per voyage

40%

ESCALATION PROBABILITY
IRGC harassment scenario

The Strait of Hormuz is experiencing its most acute tension since the 1980s Iran–Iraq Tanker War. US–Iran military confrontations, shadow fleet seizures, and the aftermath of Operation Midnight Hammer have created a structural risk environment persisting through mid-2026.

The most probable scenario (40%) involves continued IRGC harassment producing 3–10 day delays per voyage. Limited conflict (20–25%) could mean 14–45 day delays. Full blockade remains low-probability (5–10%) but has doubled since January 2026.

War risk insurance premiums have surged to 0.35–0.5% of hull value. VLCC charter rates have approximately doubled. The expected delay is forecast to rise from 5.6 days in Q1 to 7.8 days in Q2 as escalation probability increases.

Scenario-Based Delay Forecast

Five scenarios with Q1 vs Q2 probability shifts — expected delay rises from 5.6d to 7.8d

Status Quo

Q1: 30% → Q2: 20%

2d

avg delay

Minor inspections, routine naval presence

Escalation (Harassment)

Q1: 40% → Q2: 35%

6.5d

avg delay

IRGC speed boat approaches, boarding threats

Limited Conflict

Q1: 20% → Q2: 25%

29.5d

avg delay

Vessel seizure, mine threat, naval standoff

Full Blockade

Q1: 5% → Q2: 10%

60d

avg delay

Complete strait closure, military operations

De-escalation

Q1: 5% → Q2: 10%

0.5d

avg delay

Diplomatic breakthrough, ceasefire agreement

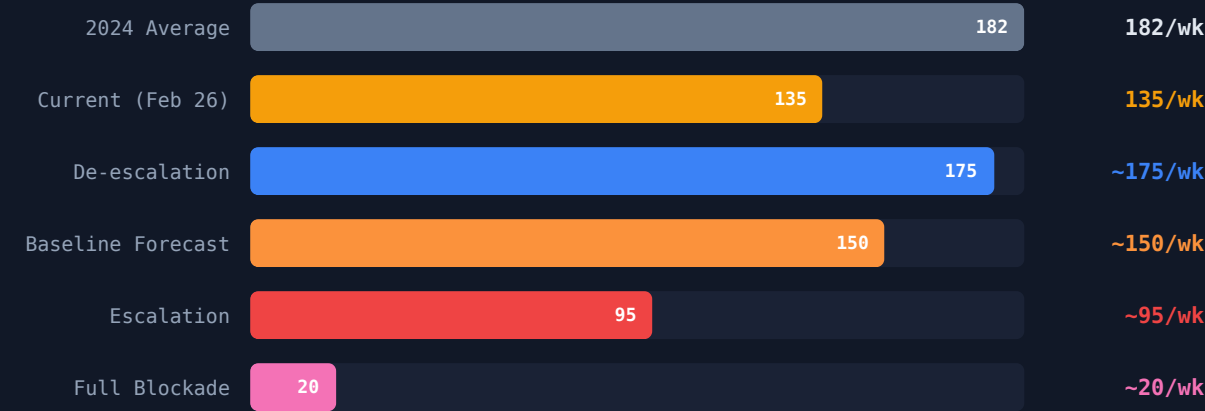
PROBABILITY-WEIGHTED EXPECTED DELAY CALCULATION

Scenario	Delay (Days)	Q1 Prob	Q1 Contribution	Q2 Prob	Q2 Contribution	Trend
Status Quo	2.0	30%	0.60d	20%	0.40d	▼ Declining
Escalation	6.5	40%	2.60d	35%	2.28d	— Stable
Limited Conflict	29.5	20%	5.90d	25%	7.38d	▲ Rising
Full Blockade	60.0	5%	3.00d	10%	6.00d	▲ Doubling
De-escalation	0.5	5%	0.03d	10%	0.05d	▲ Slight
Expected Delay			5.6 days		7.8 days	+39%

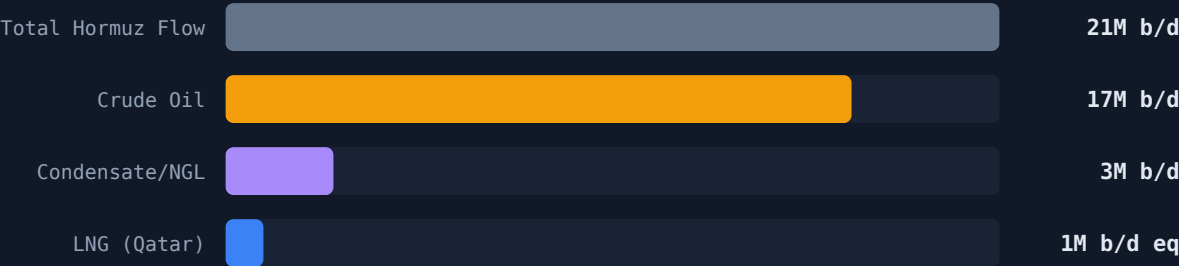
Transit Volume Impact

Weekly tanker transits — from 182 (2024 average) to 135 current, with scenario projections

WEEKLY TRANSIT VOLUME BY SCENARIO



VOLUME AT RISK — BARRELS PER DAY



DISRUPTION IMPACT

Even a 25% transit reduction removes 5.25M b/d from global supply — equivalent to the entire output of Iraq. Brent price impact estimated at +\$8–15/bbl per 10% transit decline.

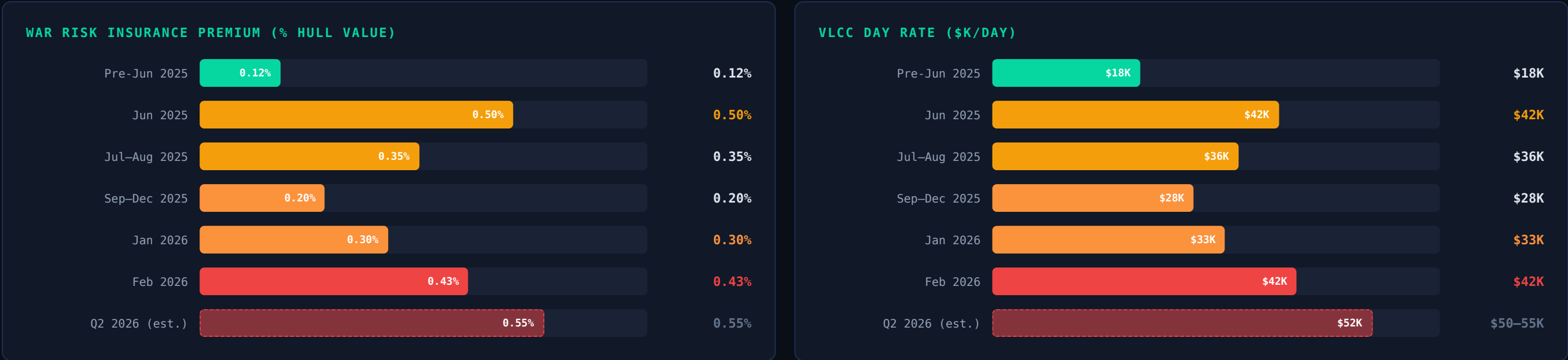
Per-Voyage Cost Impact

VLCC cost waterfall under Escalation scenario — \$1.8M base rises to \$5.2M (2.9× multiplier)



Insurance & Freight Rate Trajectory

War risk premiums at 4× pre-crisis levels — VLCC rates forecast to reach \$50–55K/day by Q2



Hormuz-Exposed Cargo Analysis

12 cargoes from the PETROMOVE blotter with direct Strait of Hormuz transit exposure

CARGO REF	GRADE	COUNTERPARTY	VOLUME	LOAD TERMINAL	SCENARIO	EST. DELAY	ADD'L COST	MITIGATION	STATUS
CARGO-020	Dubai M1	Vitol SA	500K bbl	Fateh (Dubai)	IRGC Harassment	5–8d	\$480K	Fujairah Pipeline	DELAYED
CARGO-022	Qatar Marine	Trafigura	500K bbl	Halul Island	Naval Standoff	8–12d	\$720K	CoGH Reroute	WAR RISK
CARGO-019	Murban M2	ADNOC Trading	500K bbl	Jebel Dhanna	Pre-emptive Bypass	0d	\$85K	Fujairah Direct	REROUTED
CARGO-021	Upper Zakum	Shell Trading	500K bbl	Zirku Island	Full Reroute	12–18d	\$1.2M	CoGH +12d	REROUTED
CARGO-028	Basrah Med DES	ENEOS	1M bbl	BOT (Iraq)	Active Delay	7d current	\$890K	Convoy Routing	IN DELAY
CARGO-001	Dubai M1	Aramco Trading	500K bbl	Fateh (Dubai)	Transit Risk	3–5d (est)	\$320K	Fujairah STS	AT RISK
CARGO-006	Qatar Marine	Reliance Ind.	500K bbl	Halul Island	Transit Risk	3–5d (est)	\$320K	None Available	AT RISK
CARGO-008	Basrah Medium	ENEOS	1M bbl	BOT (Iraq)	Transit Risk	5–10d (est)	\$650K	Alt Source	AT RISK
CARGO-034	Iran Heavy	ONGC Videsh	500K bbl	Kharg Island	Blockade Risk	14–45d	\$2.1M	Force Majeure	FM INVOKED

Total additional cost exposure from Hormuz delays: **\$6.77M** across 9 affected cargoes representing 5.5M barrels

Key Recommendations

1 Diversify feedstock away from Hormuz-dependent grades
Increase procurement from West Africa (Bonny Light, Forcados), Brazil (Lula, Buzios), and US Gulf Coast (Mars, WTI Midland) to reduce strait dependency below 50%.

2 Negotiate fleet war risk insurance proactively
Lock in multi-voyage policies before premiums exceed 0.5% of hull value. Estimated saving: \$160K per voyage vs spot-market pricing at crisis peaks.

3 Build strategic crude buffer inventory
Increase on-site storage to 15–21 days supply (from current 7–10 days). Prioritise pre-positioning at Fujairah and Salalah terminals outside the Strait.

4 Activate Fujairah bypass routing
Shift all UAE-origin crude to Fujairah-loaded cargoes via Abu Dhabi ADCOP pipeline. Eliminates Hormuz transit for Murban, Upper Zakum, and Das Blend grades.

5 Implement real-time tanker tracking system
Subscribe to Vortexa, Kpler, and MarineTraffic for AIS tracking and early warning alerts. Deploy geofenced alerts for all VLCCs within 200nm of the Strait.

6 Prepare contingency carrier contracts
Standby charters with non-US-flagged carriers; include war risk cost-sharing clauses and force majeure protections. Pre-negotiate rates for Cape of Good Hope rerouting.

7 Model CBAM cost of rerouting via Cape of Good Hope
CoGH adds 8–12 sailing days plus 15–20% additional bunker consumption. Factor EU CBAM emissions cost and carbon credit exposure into rerouting economics.

8 Scenario-plan for Q2 tail risk events
Develop operational playbook for Limited Conflict (14–45 day delays) and Full Blockade scenarios. Include pre-authorised alternative sourcing, automatic rerouting triggers, and crisis communication protocols.

Next Steps

Convene an emergency supply chain risk review within the next 10 days:

- Assess feedstock diversification options & alternative sourcing economics
- Execute insurance renegotiation strategy before next escalation event
- Set buffer inventory targets for priority blending facilities
- Develop operational playbook for Limited Conflict scenario (14–45d delays)
- Commission real-time AIS tracking and deploy geofenced alert system

