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MARITIME INTELLIGENCE DOSSIER

Area of Interest Report — STRAIT OF MALACCA

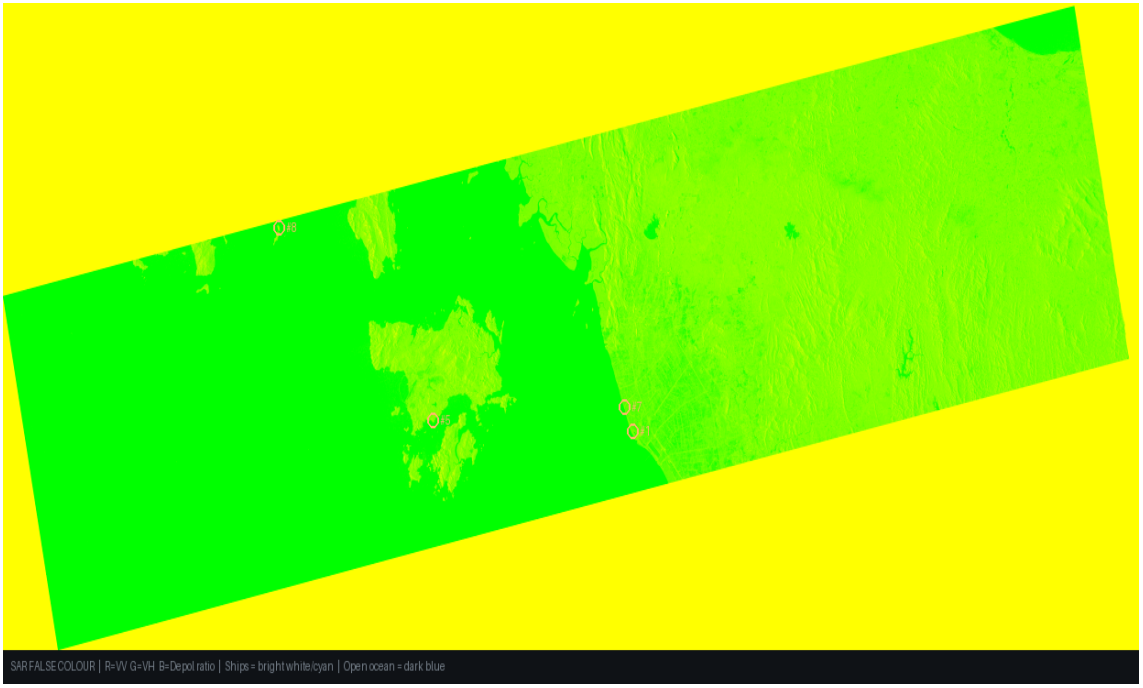


FIGURE 1 — Full-scene SAR false-colour composite. R=VV · G=VH · B=Depol ratio. Circles mark all SAR detections.

MISSION ID	MISSION_STRAIT_OF_MALACCA_20260401T080958
AOI	STRAIT OF MALACCA
SCENE TIME	2026-04-01 08:09 UTC
TOTAL DETECTIONS	9
DARK VESSELS	0
UNCERTAIN	9
AIS MATCHED	0

PRODUCED	2026-05-26T16:21:11Z

SECTION 01

Detection Summary

Scene acquired over **STRAIT OF MALACCA** on **2026-04-01 at 08:09 UTC**. Sentinel-1A IW GRD processed through the Dark Ships 5-phase calibration and YOLO detection pipeline. 9 vessel(s) resolved above confidence threshold.

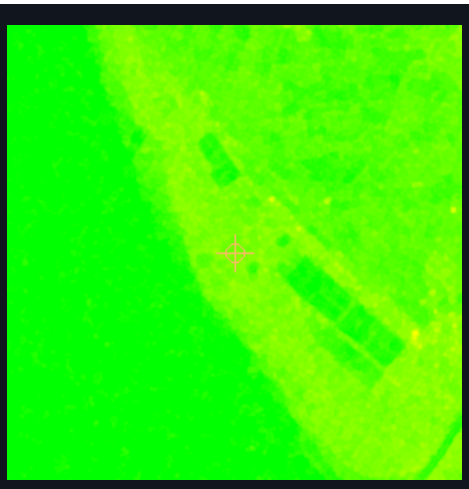
ID	LAT	LON	CONF	STATUS	MMSI
DET-2026040108-STRA-000	6.2654	100.1834	53%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-001	7.4159	99.2026	50%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-002	7.2055	99.5603	49%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-003	7.3162	99.5745	44%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-004	6.2832	99.7728	39%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-005	7.3330	99.5063	39%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-006	6.3034	100.1676	35%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-007	6.5824	99.4547	33%	UNCERTAIN (AIS DATA GAP)	—
DET-2026040108-STRA-008	7.0573	99.6882	32%	UNCERTAIN (AIS DATA GAP)	—

SECTION 02

Per-Vessel Intelligence

Each vessel card below shows the SAR chip, AIS status, and fused confidence score.

Vessel #1 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-000



SAR false-colour chip

Lat: 6.2654°N
Lon: 100.1834°E
Conf: 53%
MMSI: —
Det ID:
`DET-2026040108-STRA-000`

Vessel #2 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-001

`[chip not available]`

Lat: 7.4159°N
Lon: 99.2026°E
Conf: 50%
MMSI: —
Det ID:
`DET-2026040108-STRA-001`

Vessel #3 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-002

`[chip not available]`

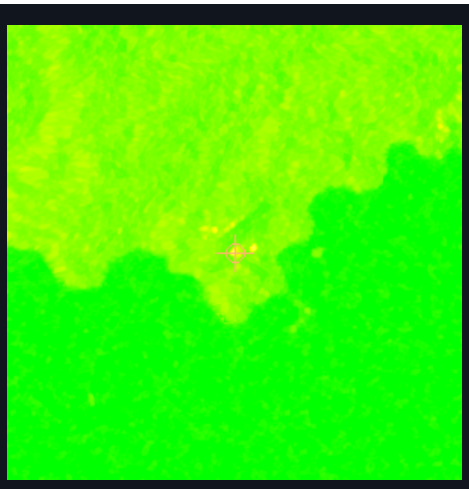
Lat: 7.2055°N
Lon: 99.5603°E
Conf: 49%
MMSI: —
Det ID:
`DET-2026040108-STRA-002`

Vessel #4 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-003

`[chip not available]`

Lat: 7.3162°N
Lon: 99.5745°E
Conf: 44%
MMSI: —
Det ID:
`DET-2026040108-STRA-003`

Vessel #5 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-004



SAR false-colour chip

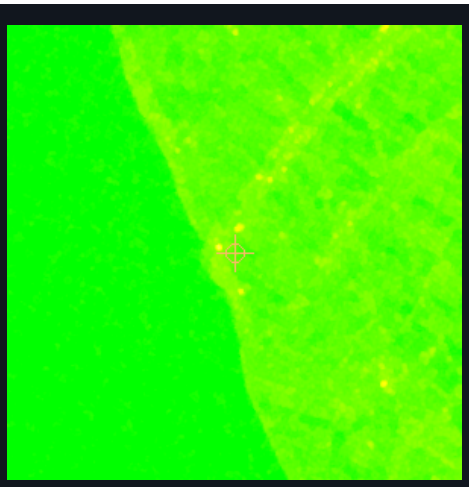
Lat: 6.2832°N
Lon: 99.7728°E
Conf: 39%
MMSI: —
Det ID:
`DET-2026040108-STRA-004`

Vessel #6 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-005

`[chip not available]`

Lat: 7.3330°N
Lon: 99.5063°E
Conf: 39%
MMSI: —
Det ID:
`DET-2026040108-STRA-005`

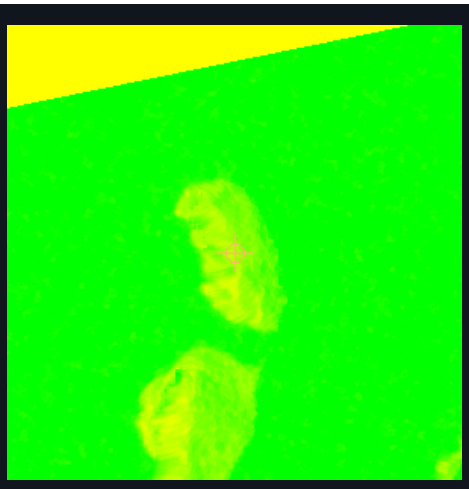
Vessel #7 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-006



SAR false-colour chip

Lat: 6.3034°N
Lon: 100.1676°E
Conf: 35%
MMSI: —
Det ID:
`DET-2026040108-STRA-006`

Vessel #8 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-007



SAR false-colour chip

Lat: 6.5824°N
Lon: 99.4547°E
Conf: 33%
MMSI: —
Det ID:
`DET-2026040108-STRA-007`

Vessel #9 · UNCERTAIN (AIS DATA GAP) · DET-2026040108-STRA-008

`[chip not available]`

Lat: 7.0573°N
Lon: 99.6882°E
Conf: 32%
MMSI: —
Det ID:
`DET-2026040108-STRA-008`

SECTION 03

Technical Methodology & Chain of Custody

ACQUISITION

Sentinel-1A IW GRD downloaded from Copernicus Data Space Ecosystem (CDSE).

CALIBRATION

ESA SNAP GPT 6-step chain: orbit → thermal noise removal → radiometric calibration → multilook → terrain correction (SRTM 1Sec) → dB conversion. Output: Sigma-0 dB GeoTIFF, 10 m GSD.

DETECTION

YOLOv8 ship detector (xView3-SAR + SARFish training set). Conf threshold 0.35. CFAR secondary validation (128×128 guard, 5 dB above local mean).

AIS FUSION

Cross-reference within 2 km / ±30 min of scene midpoint. Dark = no AIS. Uncertain = AIS gap at acquisition time. Matched = confirmed transponder.

FALSE COLOUR

Chip extraction: VV→R, VH→G, (VV–VH)→B, 300×300 px per vessel, 10 m native resolution.

MISSION ID	`MISSION_STRAIT_OF_MALACCA_20260401T080958`
REPORT PRODUCED	`2026-05-26T16:21:11Z`

PIPELINE	Dark Ships v1.0 · Phase 3 Validated (2026-04-13)
VESSELS IN REPORT	9
CLASSIFICATION	**SENSITIVE — INTELLIGENCE PRODUCT**