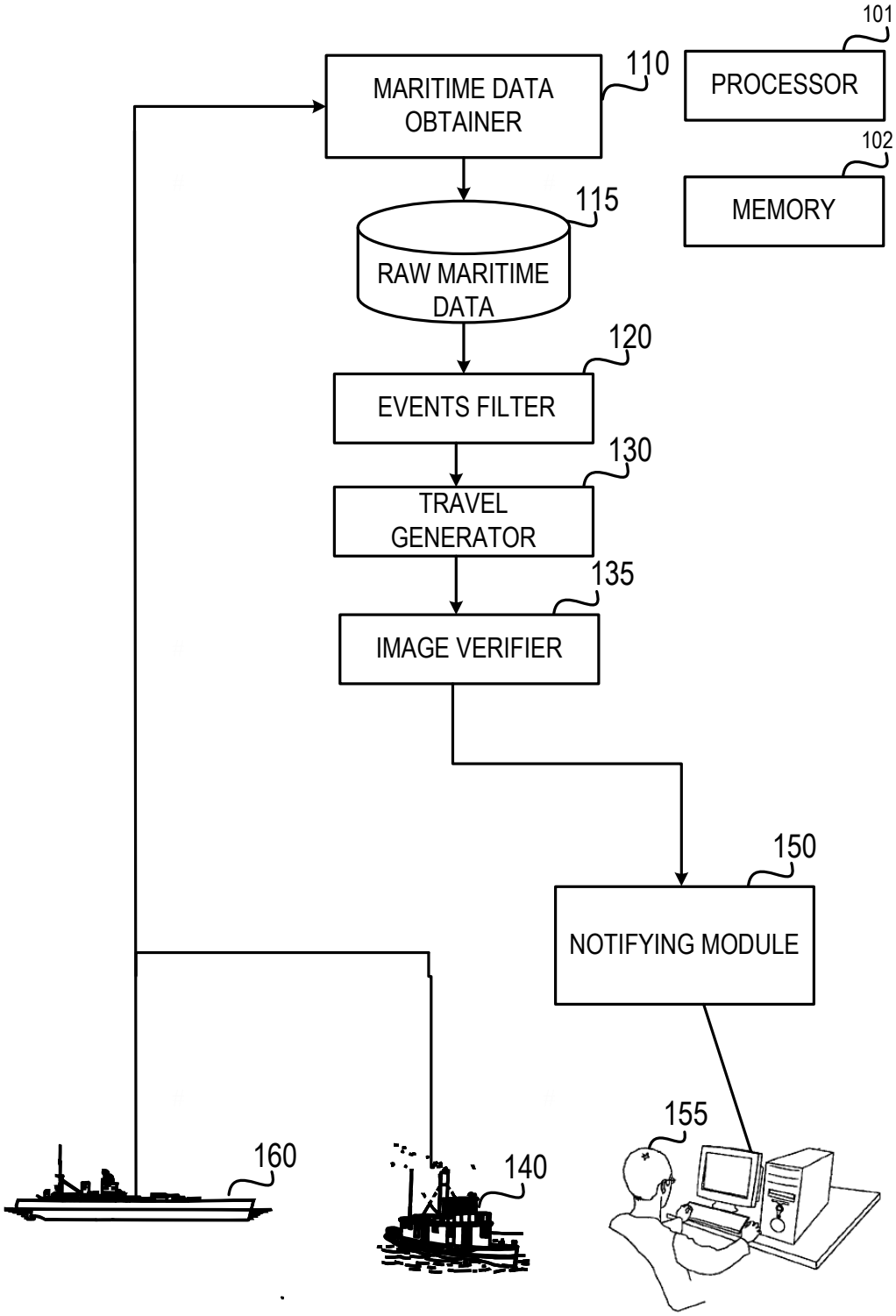

101
PROCESSOR
110
MARITIME DATA OBTAINER
102
MEMORY
115
RAW MARITIME DATA
120
EVENTS FILTER
130
TRAVEL GENERATOR
135
IMAGE VERIFIER
150
NOTIFYING MODULE
155
160
140

FIG. 1

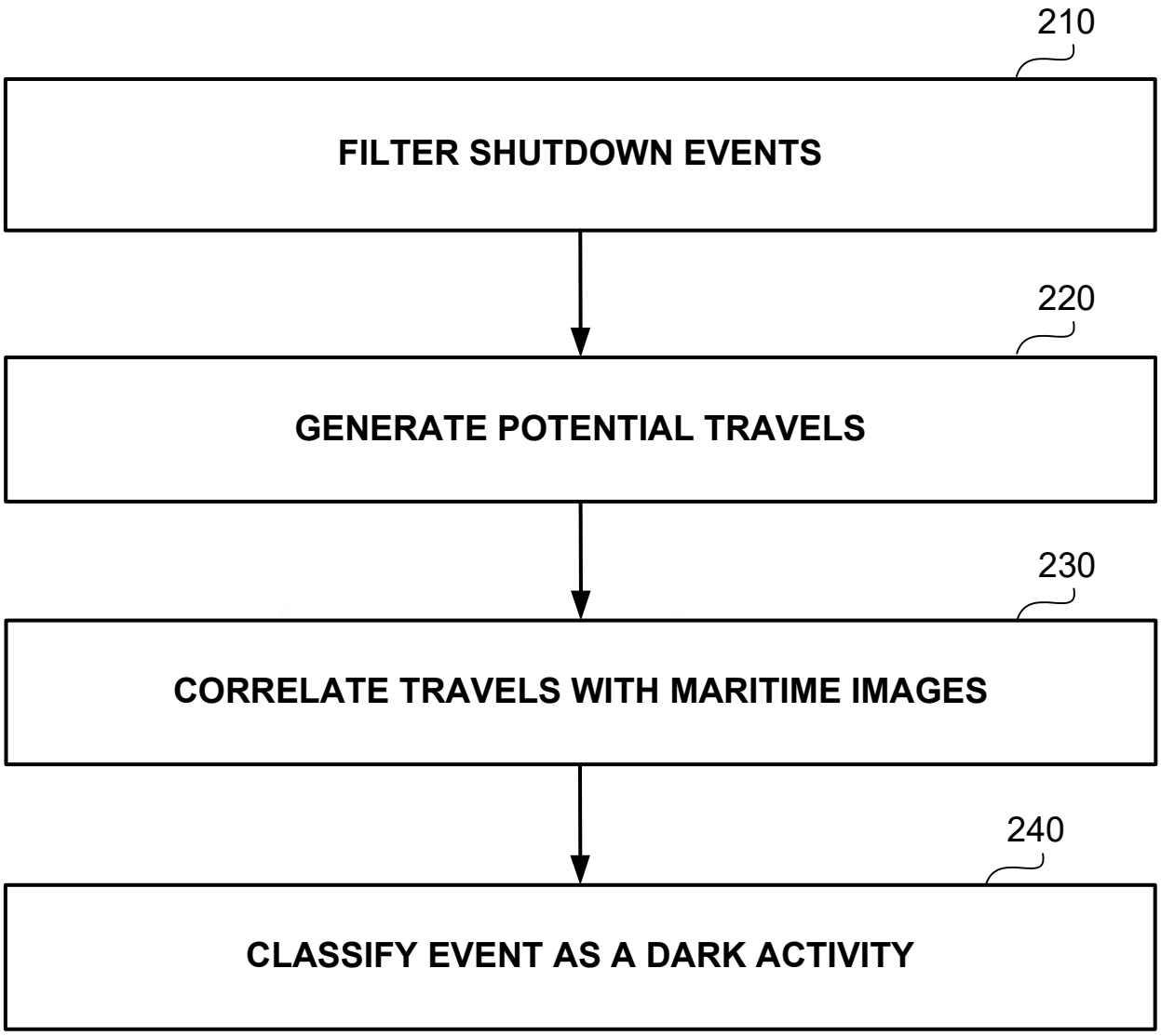

210
FILTER SHUTDOWN EVENTS
220
GENERATE POTENTIAL TRAVELS
230
CORRELATE TRAVELS WITH MARITIME IMAGES
240
CLASSIFY EVENT AS A DARK ACTIVITY

FIG. 2

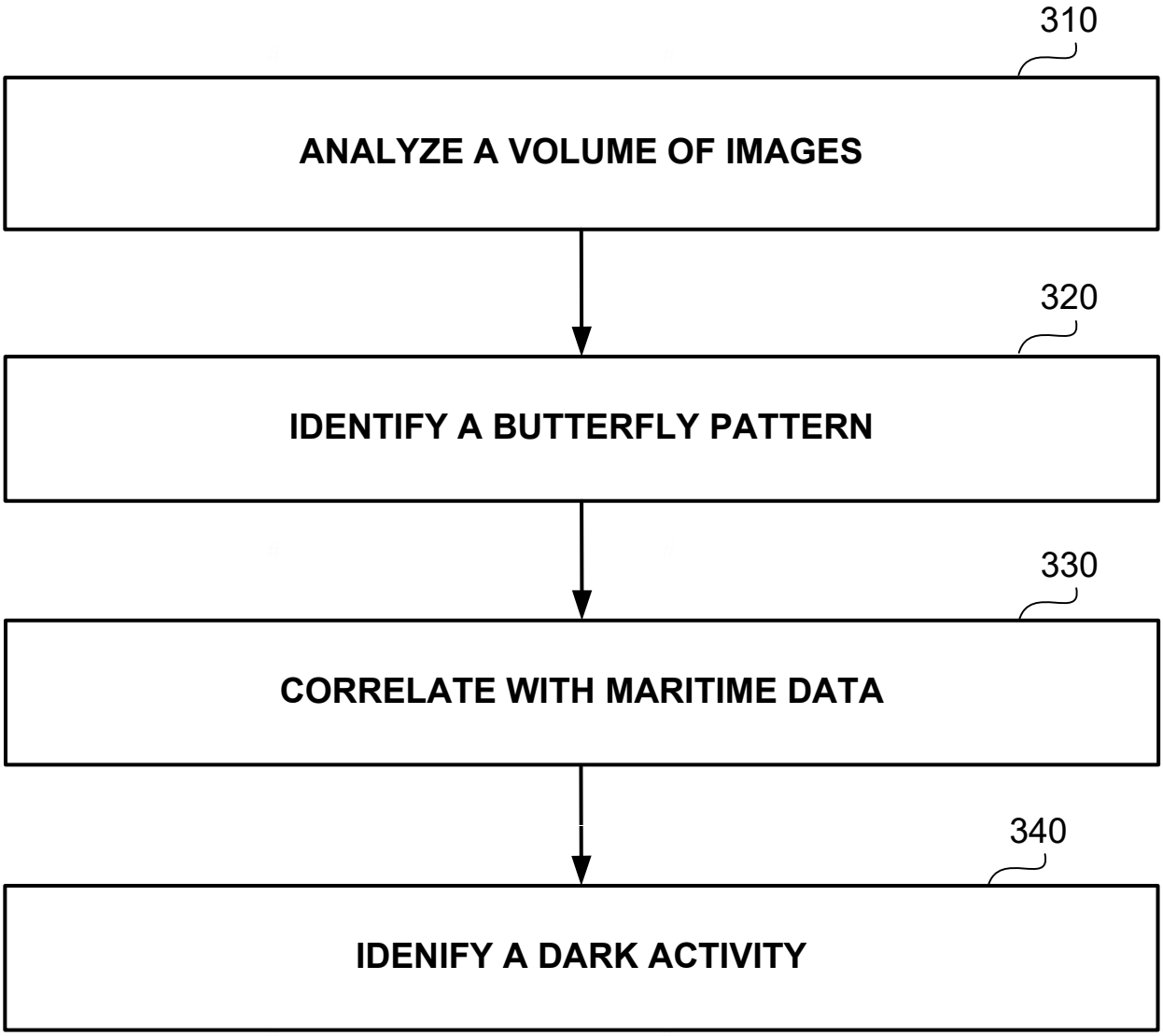

310
ANALYZE A VOLUME OF IMAGES
320
IDENTIFY A BUTTERFLY PATTERN
330
CORRELATE WITH MARITIME DATA
340
IDENIFY A DARK ACTIVITY

FIG. 3

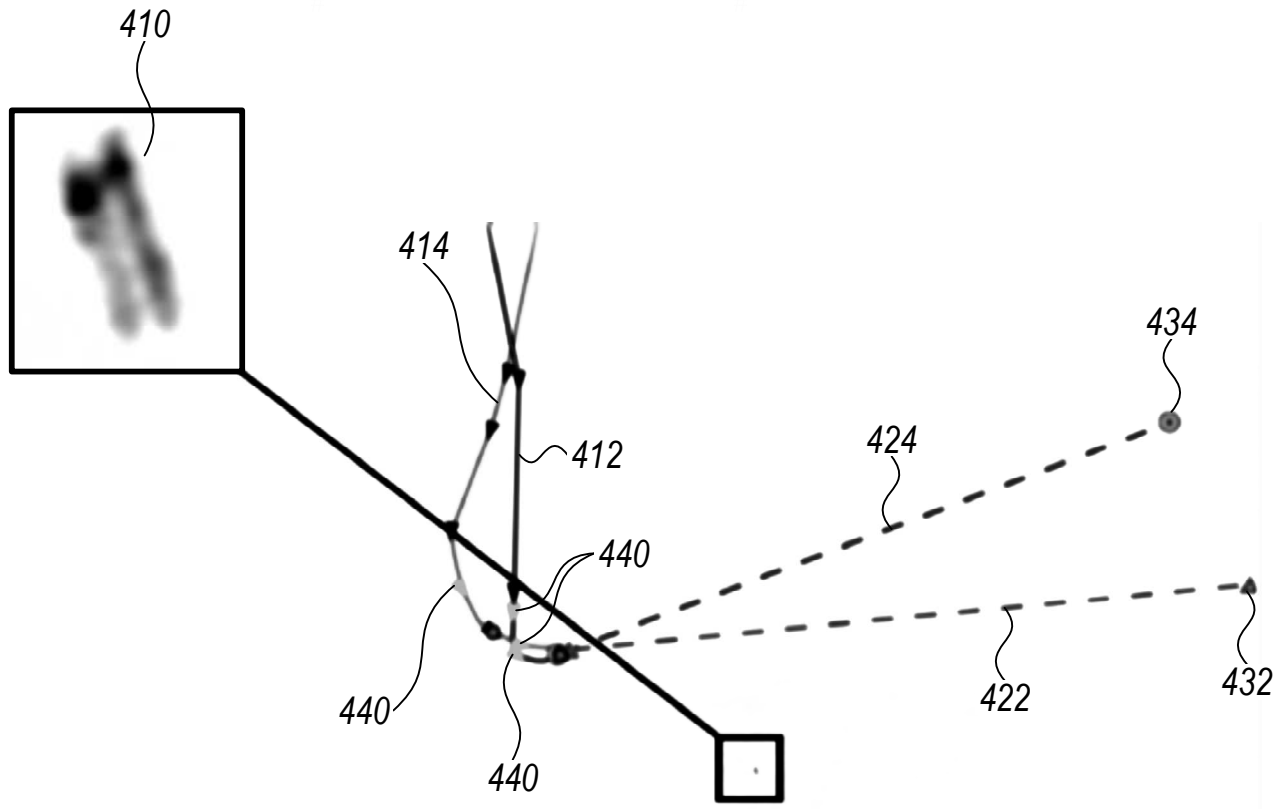


FIG. 4

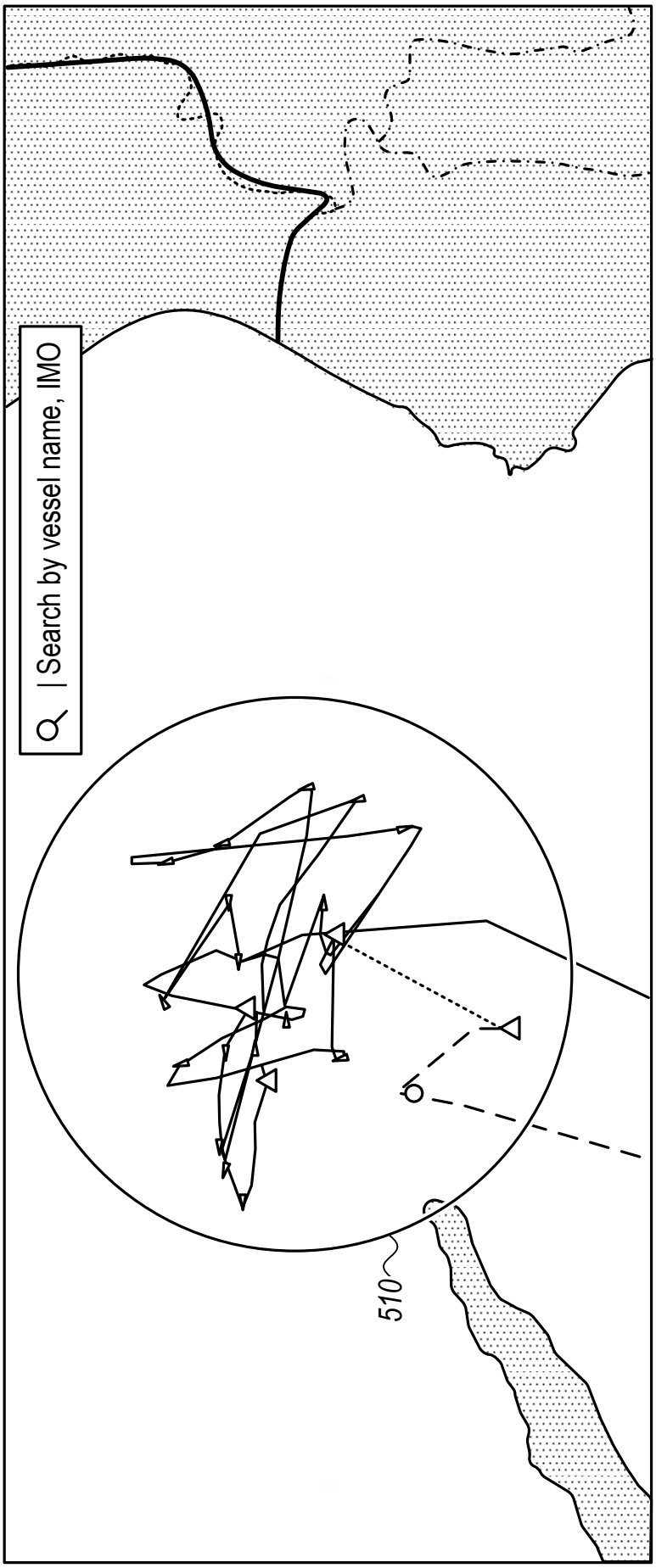


FIG. 5

FIG. 6

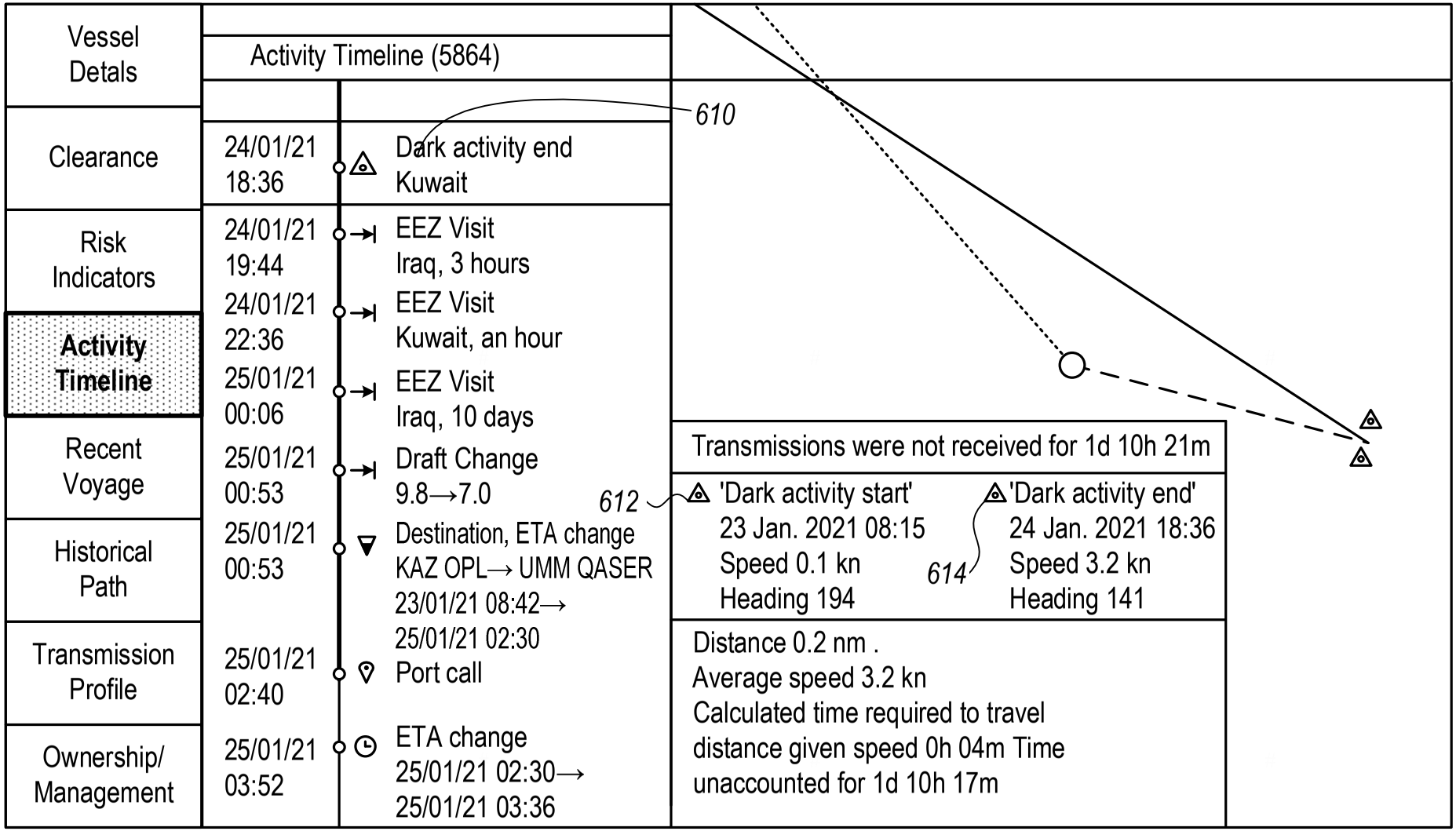
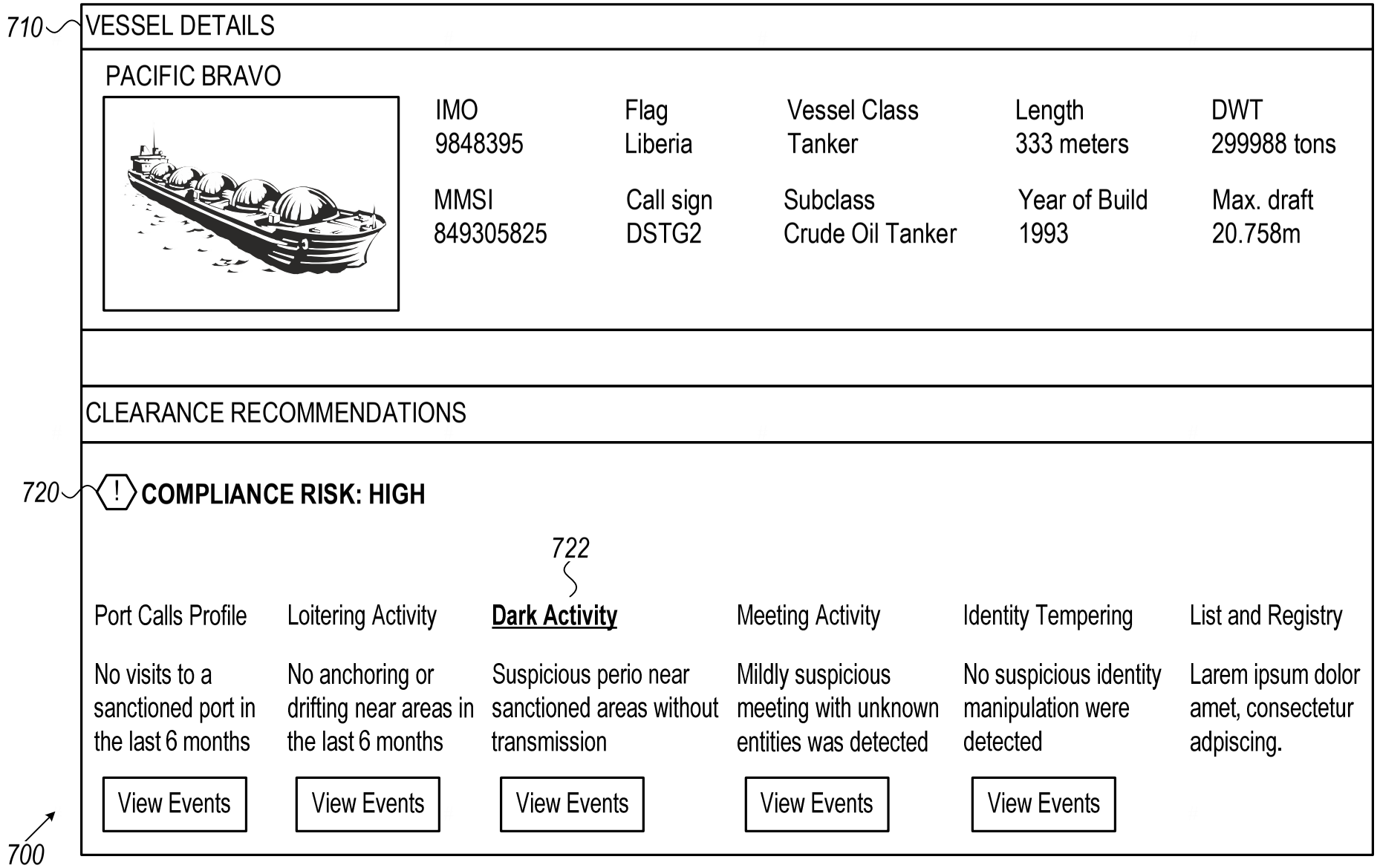

600
Vessel Detals
Clearance
Risk Indicators
Activity Timeline
Recent Voyage
Historical Path
Transmission Profile
Ownership/ Management
Activity Timeline (5864)
610
24/01/21 18:36
Dark activity end
Kuwait
24/01/21 19:44
EEZ Visit
Iraq, 3 hours
24/01/21 22:36
EEZ Visit
Kuwait, an hour
25/01/21 00:06
EEZ Visit
Iraq, 10 days
25/01/21 00:53
Draft Change
9.8→7.0
25/01/21 00:53
Destination, ETA change
KAZ OPL→ UMM QASER
23/01/21 08:42→
25/01/21 02:30
25/01/21 02:40
Port call
25/01/21 03:52
ETA change
25/01/21 02:30→
25/01/21 03:36
Transmissions were not received for 1d 10h 21m
612
'Dark activity start'
23 Jan. 2021 08:15
Speed 0.1 kn
Heading 194
614
'Dark activity end'
24 Jan. 2021 18:36
Speed 3.2 kn
Heading 141
Distance 0.2 nm .
Average speed 3.2 kn
Calculated time required to travel distance given speed 0h 04m Time unaccounted for 1d 10h 17m

FIG. 7


710
VESSEL DETAILS
PACIFIC BRAVO
IMO
9848395
Flag
Liberia
Vessel Class
Tanker
Length
333 meters
DWT
299988 tons
MMSI
849305825
Call sign
DSTG2
Subclass
Crude Oil Tanker
Year of Build
1993
Max. draft
20.758m
CLEARANCE RECOMMENDATIONS
720
COMPLIANCE RISK: HIGH
722
Port Calls Profile
No visits to a sanctioned port in the last 6 months
View Events
Loitering Activity
No anchoring or drifting near areas in the last 6 months
View Events
Dark Activity
Suspicious perio near sanctioned areas without transmission
View Events
Meeting Activity
Mildly suspicious meeting with unknown entities was detected
View Events
Identity Tempering
No suspicious identity manipulation were detected
View Events
List and Registry
Larem ipsum dolor amet, consectetur adpiscing.
700
7/8

BEHAVIORAL RISK INDICATORS

■ High Risk Events ☐ Medium Risk Events ▩ Low Risk Events

⚠ **Dark Activity**
Possible activity in sanctioned country during the transmission gap

Related country
Iran

Start	End	Duration
23/01/2021 08:15	24/01/2021 18:36	1d 10h 22m

VOYAGE CONTEXT		REPORTED DESTINATION		REPORTED DRAFT	
Previous Port	Next Port	Before Event	After Event	Before Event	After Event
Khor Al Zubair (Iraq)	Umm Qasr (Iraq)	KAZ OPL	Umm Qasr	9.8	7

DARK ACTIVITY METRICS	VOYAGE CONTEXT				
AIS Coverage	Previous Port	Distance	Speed	Calculated Time	Unaccounted Time
Standard	Khor Al Zubair (Iraq)	0.229 nm	3.2 kn	4 minutes	1d 10h 17m

POSSIBLE PORT VISITS
2 ports are possible candidates

800

8/8

FIG. 8