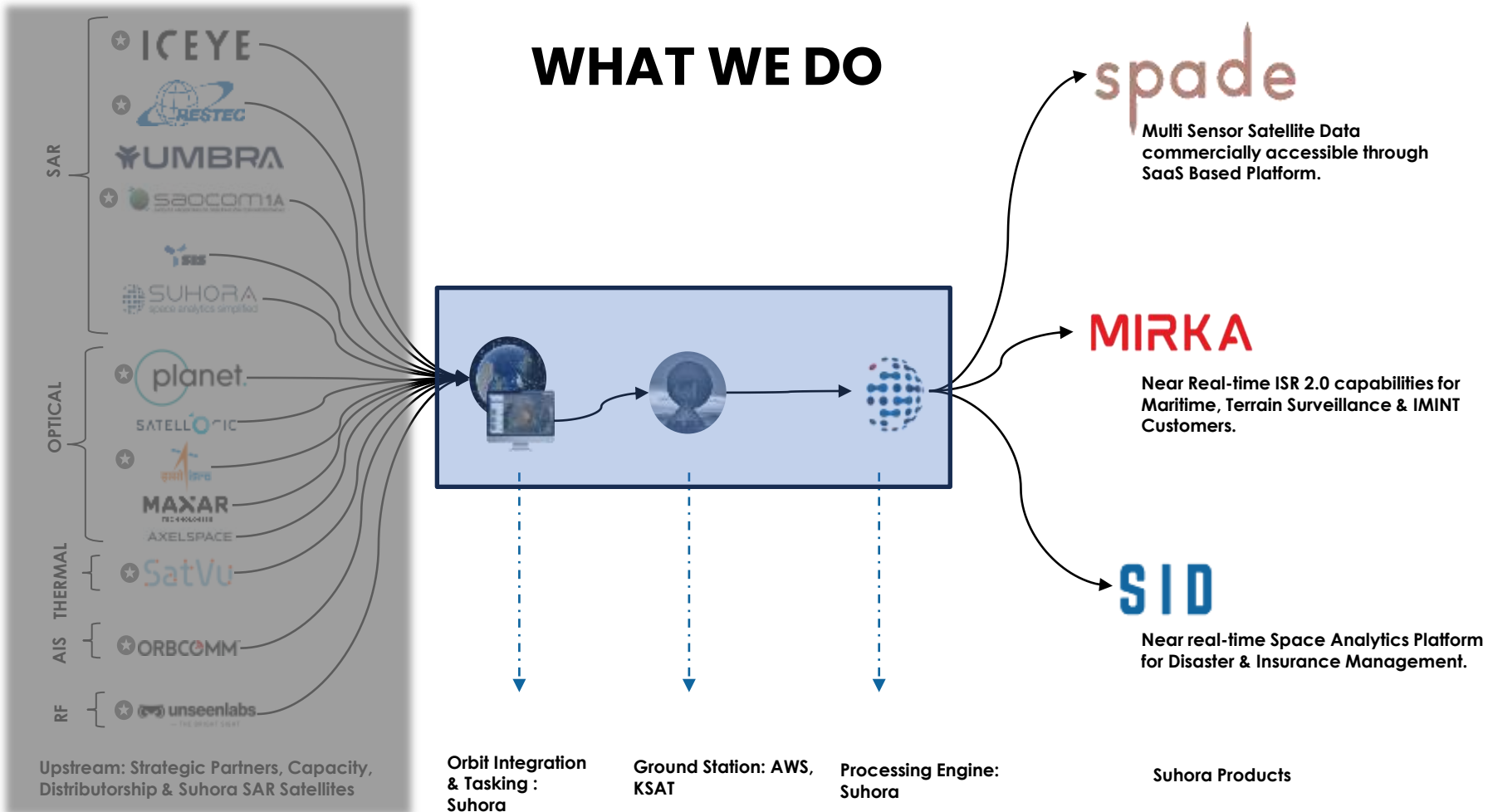


# **Multi-Domain Operations-Intelligence & Technology in Action**



# WHAT WE DO

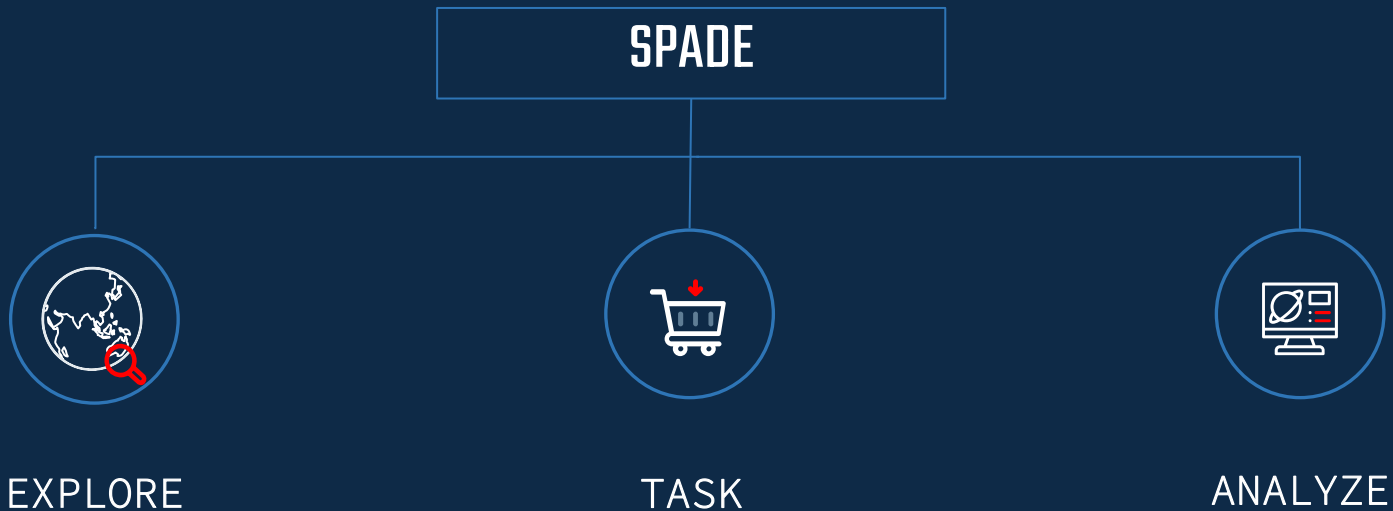




# Multi-sensor data integration for Space-based ISR



# How Spade changes this Landscape





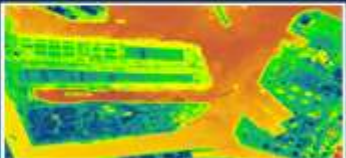
Interpretation friendly

Any time



All weather

Beyond what's visible



Hyperspectral

SIGINT( AIS, RF)

...and much more





10 million  
Sq Km coverage

---

And growing constellation capacity





250+

Satellites in Orbit

>10

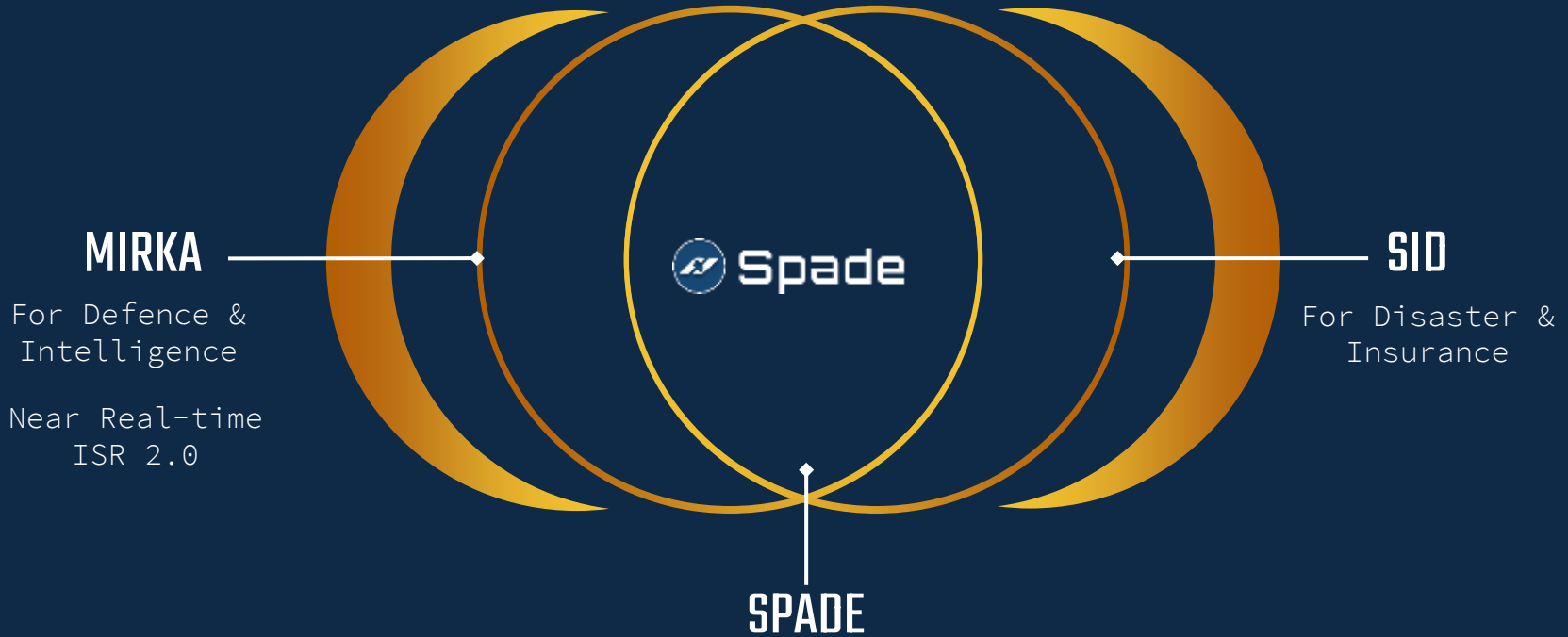
Captures at any POI



# Artificial Intelligence & Space data



# HOW SUHORA IS BRIDGING THE GAP?



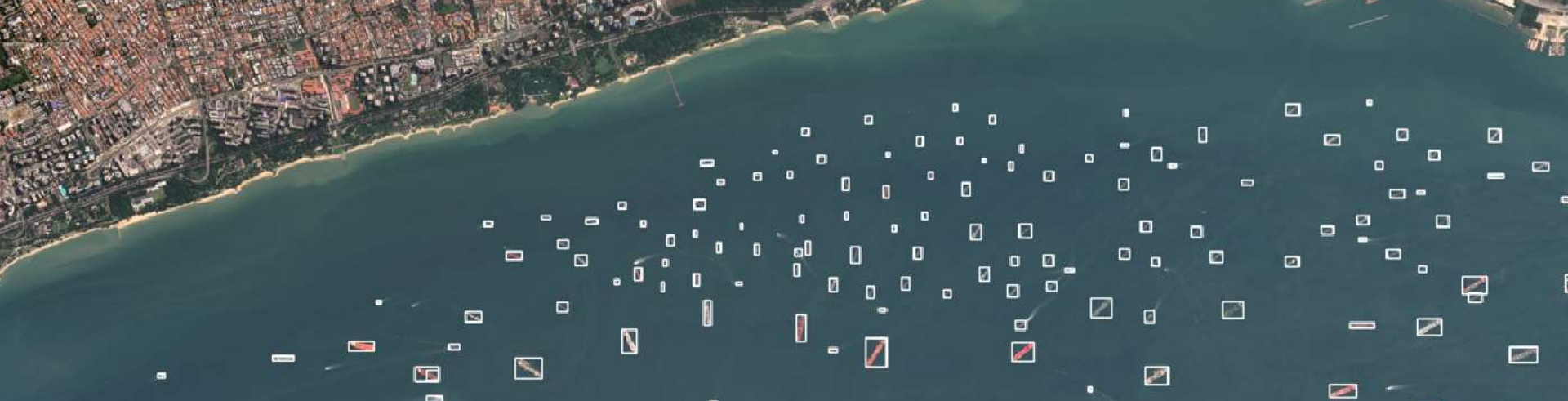
# MIRKA

Near Real-time ISR 2.0 capabilities for Maritime, Terrain Surveillance & IMINT Customers.



# Case study : Maritime Domain Awareness





# Maritime Domain Awareness



Malacca Strait

Ship detection

# Automated detection & classification

IMAGING



DETECTION



CLASSIFICATION

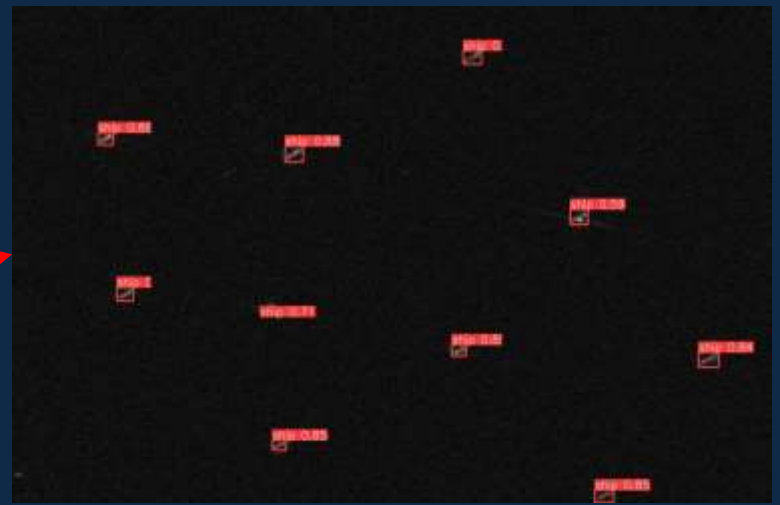


Karachi Port, Pakistan





Jamnagar, India

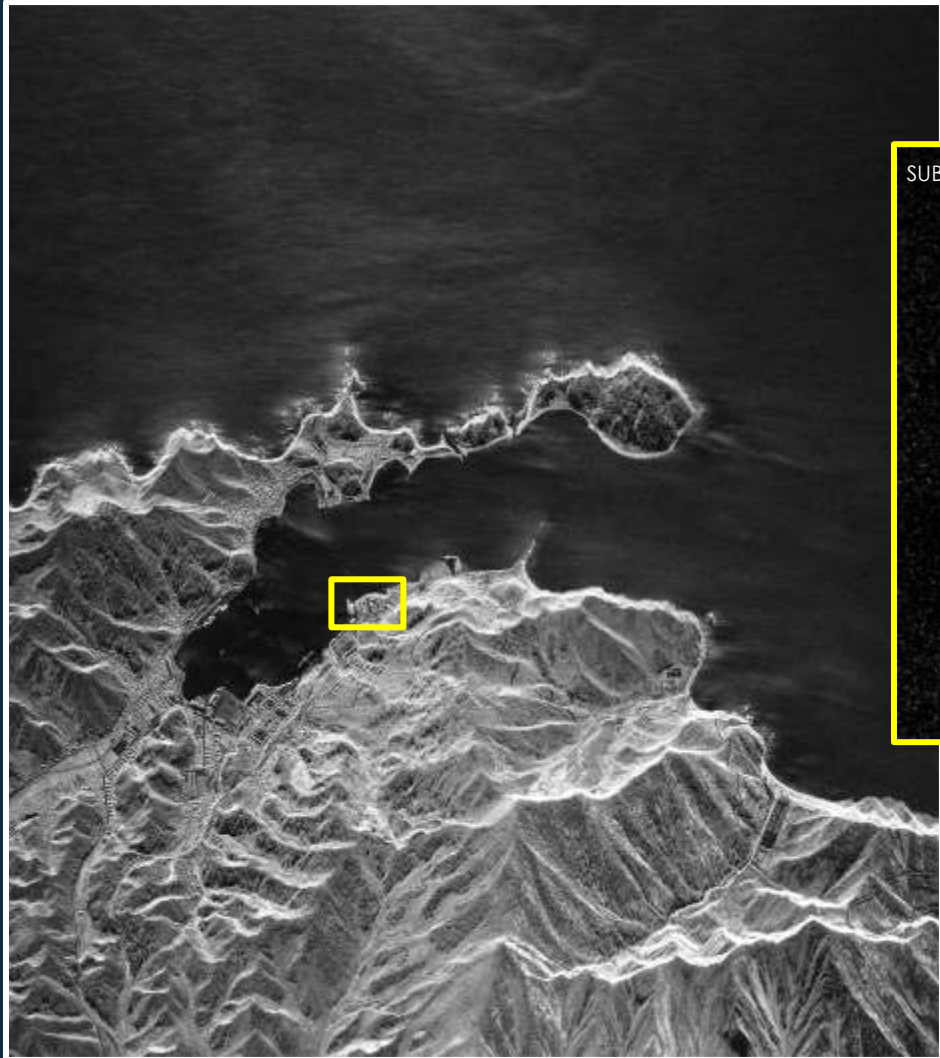




# ADVANCED SAR IMAGING

Maizuru, Japan

SUHORA confidential



Port of Chaho, North Korea  
2023-03-08, 06:01 UTC

# Patterns / Anomaly



Malacca Strait



Limay Port

Image Acquisition Date : 26th July 2024 03:13 PM [Local Time]

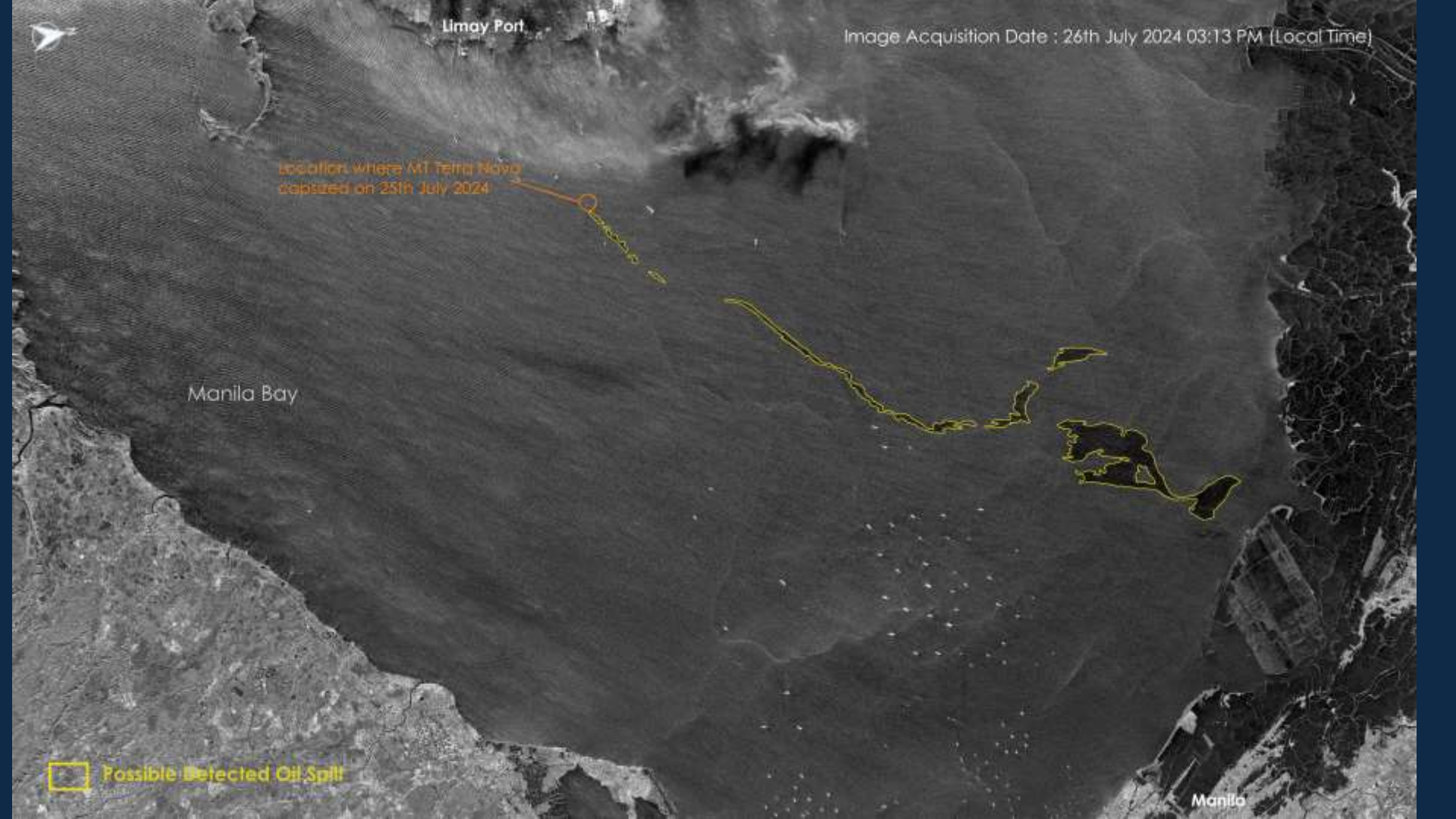
Location where MT Terra Nova  
capsized on 25th July 2024

Manila Bay



Possible Detected Oil Spill

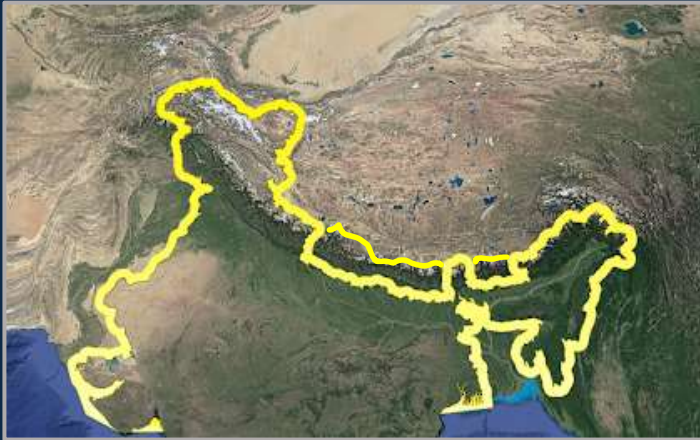
Manila



# Case study : Proactive Border Monitoring



# Case study : Terrain Situational Awareness



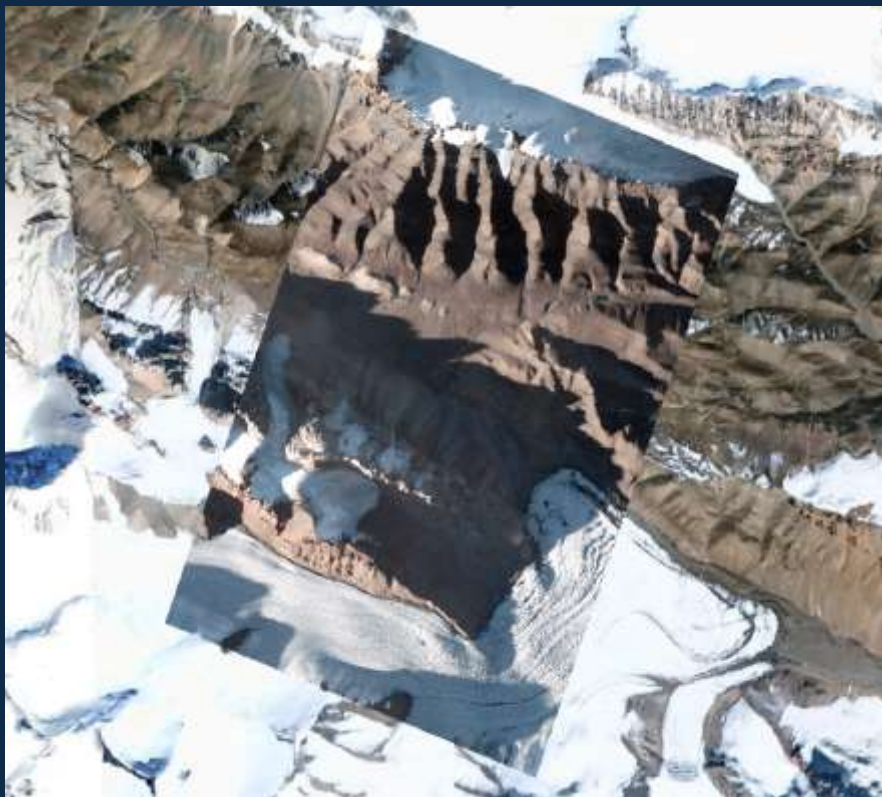
## Area of Interest\*

A boundary Buffer of 50-60 Km away from the boundary and 10 km within



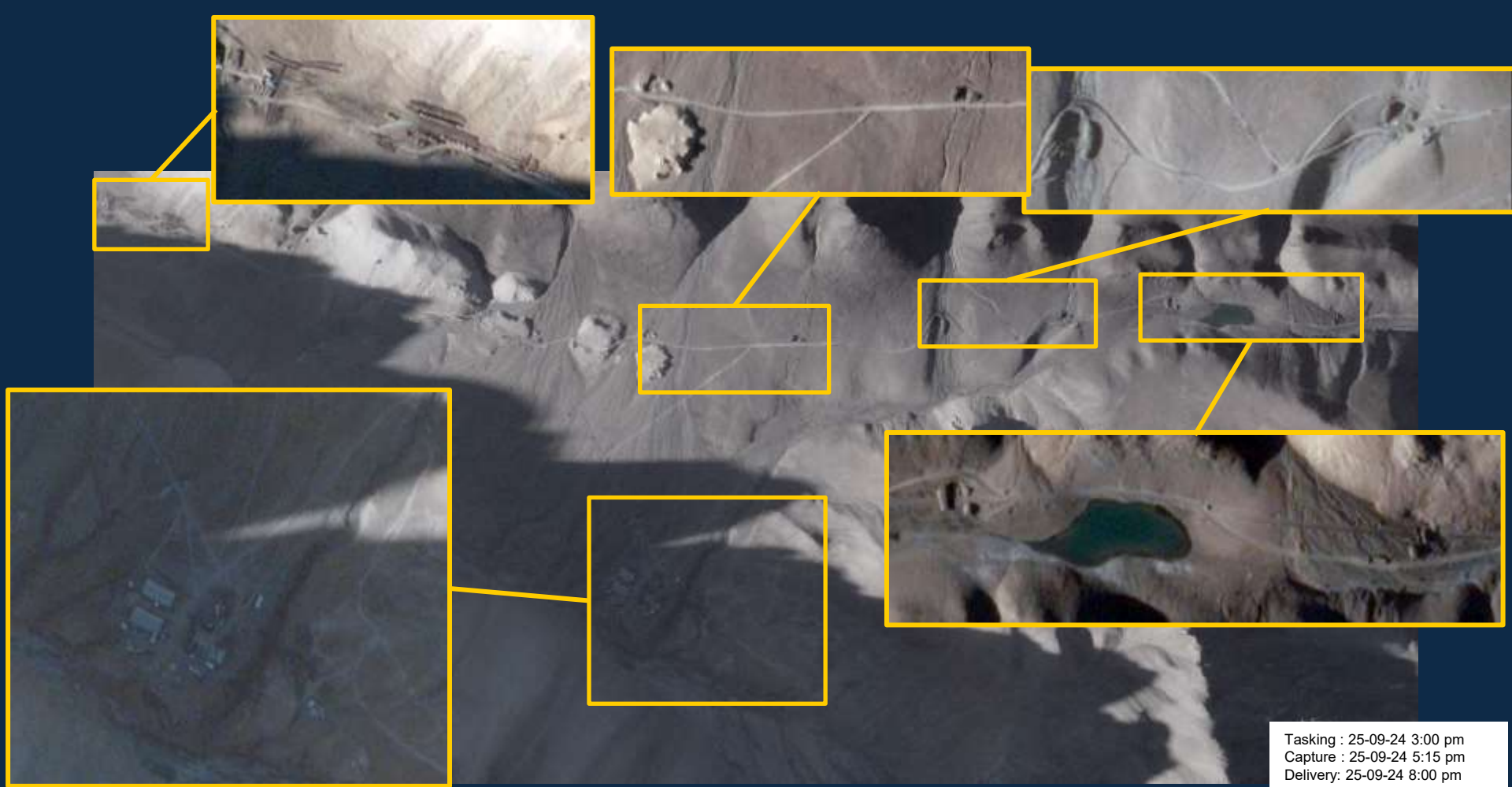




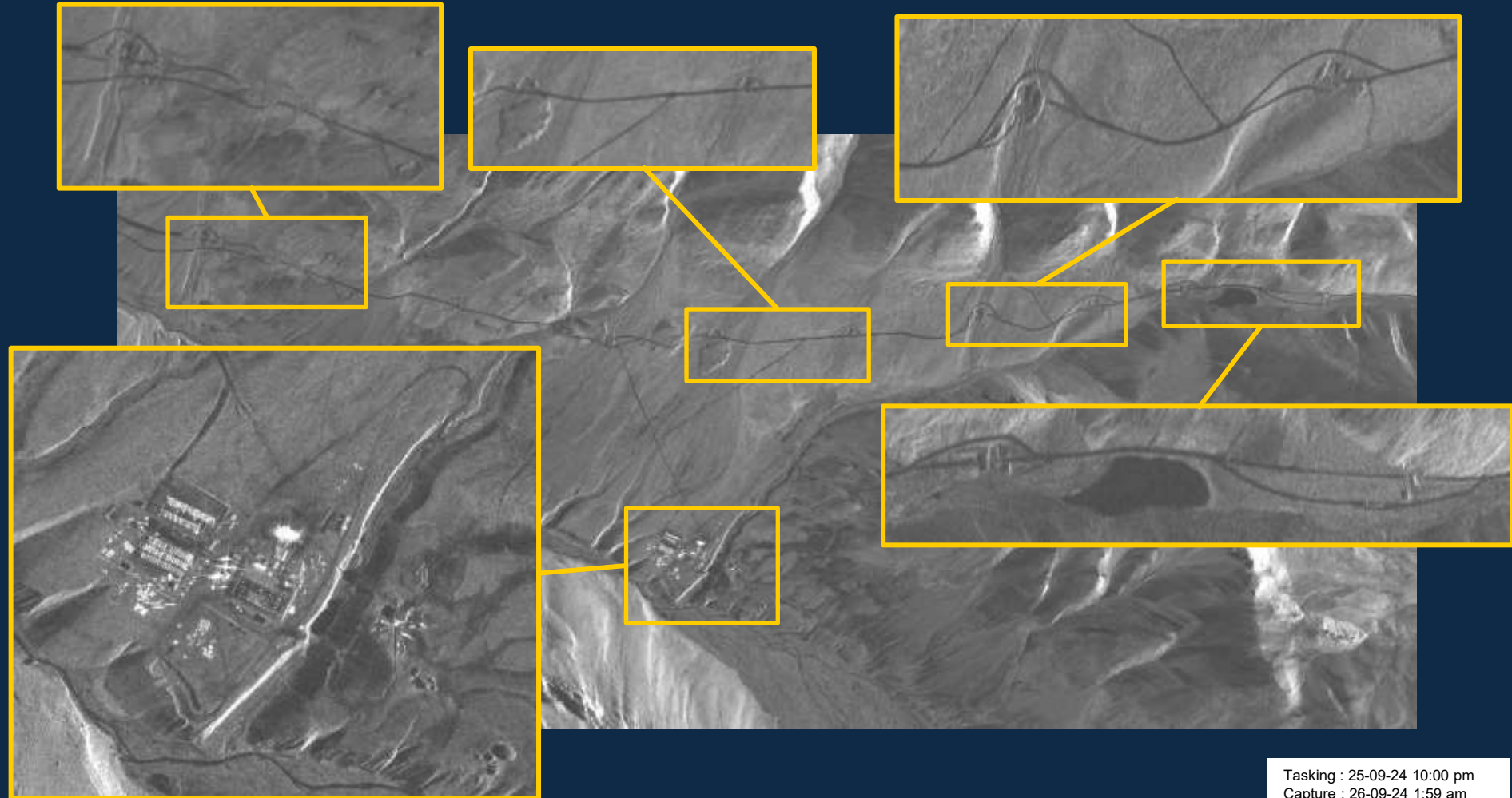


Spatial resolution	83 cm to 1.30 m
Revisit rate	Up to 7 times per day
Scene size	26 sq km to 33 sq km
Spectral bands	1 PAN and 3 RGB

Date	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	1-Oct	2-Oct
Early Morning (5AM to 9 AM)	1	0	1	0	0	0	0
Morning (9 AM to 12 PM)	2	2	1	2	3	2	3
Afternoon (12 PM to 5 PM)	1	1	1	2	3	2	2
Total Passes	4	3	3	4	6	4	5



Tasking : 25-09-24 3:00 pm  
Capture : 25-09-24 5:15 pm  
Delivery: 25-09-24 8:00 pm



Tasking : 25-09-24 10:00 pm  
Capture : 26-09-24 1:59 am  
Delivery: 26-09-24 5:30 am

# Sir Creek



Feb 2024



March 2024



May 2024



## CHINA IN BHUTAN

# Persistent Surveillance

Infrastructure : May 2024



# Case study : Terrain Situational Awareness

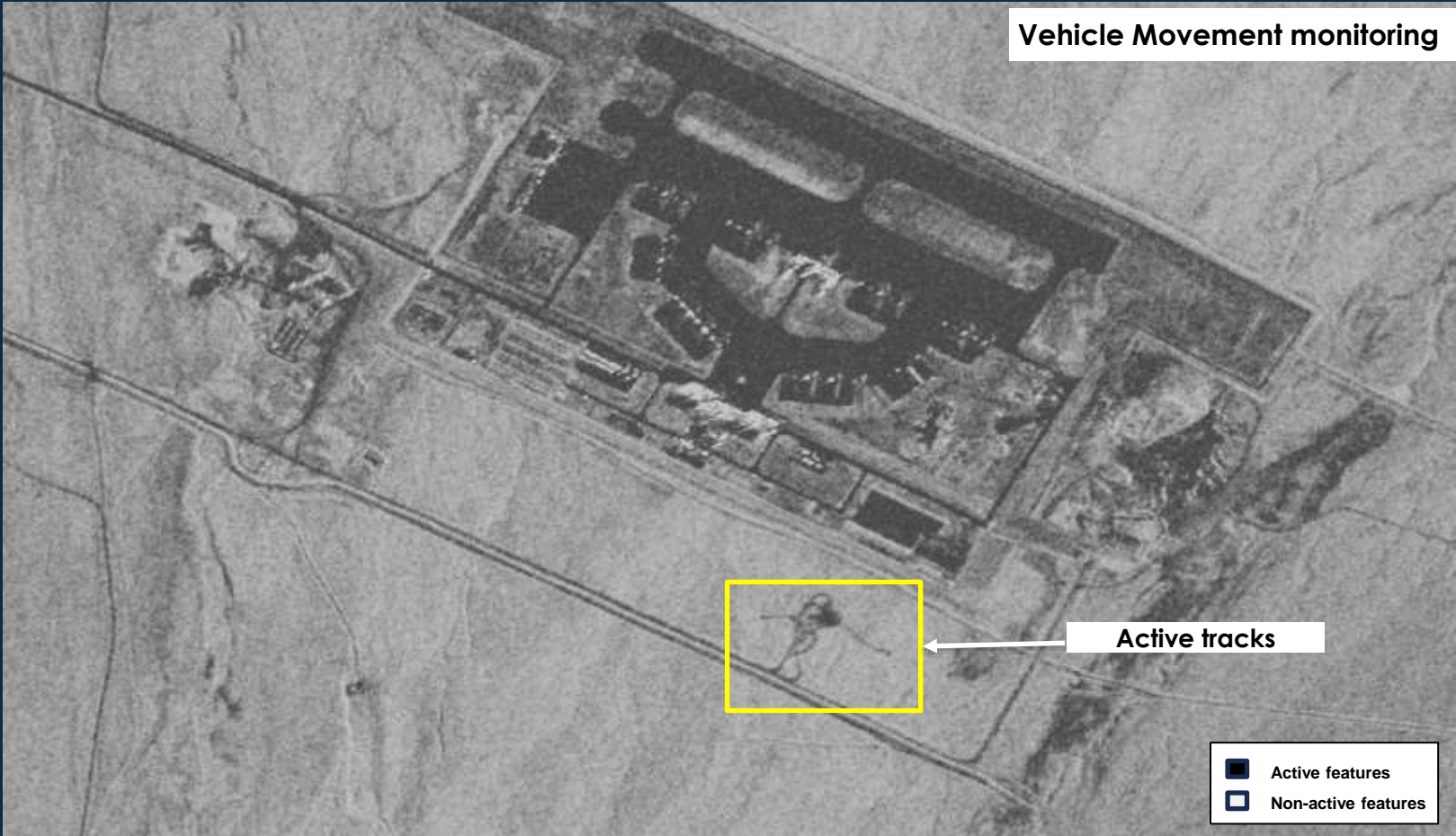


CSI : MAN-MADE OBJECT INDICATOR

CONCENTRATION OF VEHICLES AND EQUIPMENT

CHAPLYNKI, UKRAINE

Vehicle Movement monitoring



Change detection between 31/05/2024 and 01/06/2024

# Activity monitoring



Activity detected between 14/03/2024 & 15/03/2024

14 April 2024



## Target Detection and IMINT analysis

# Adding another dimension to ISR

Optical Image

Oil Refinery, Kuwait

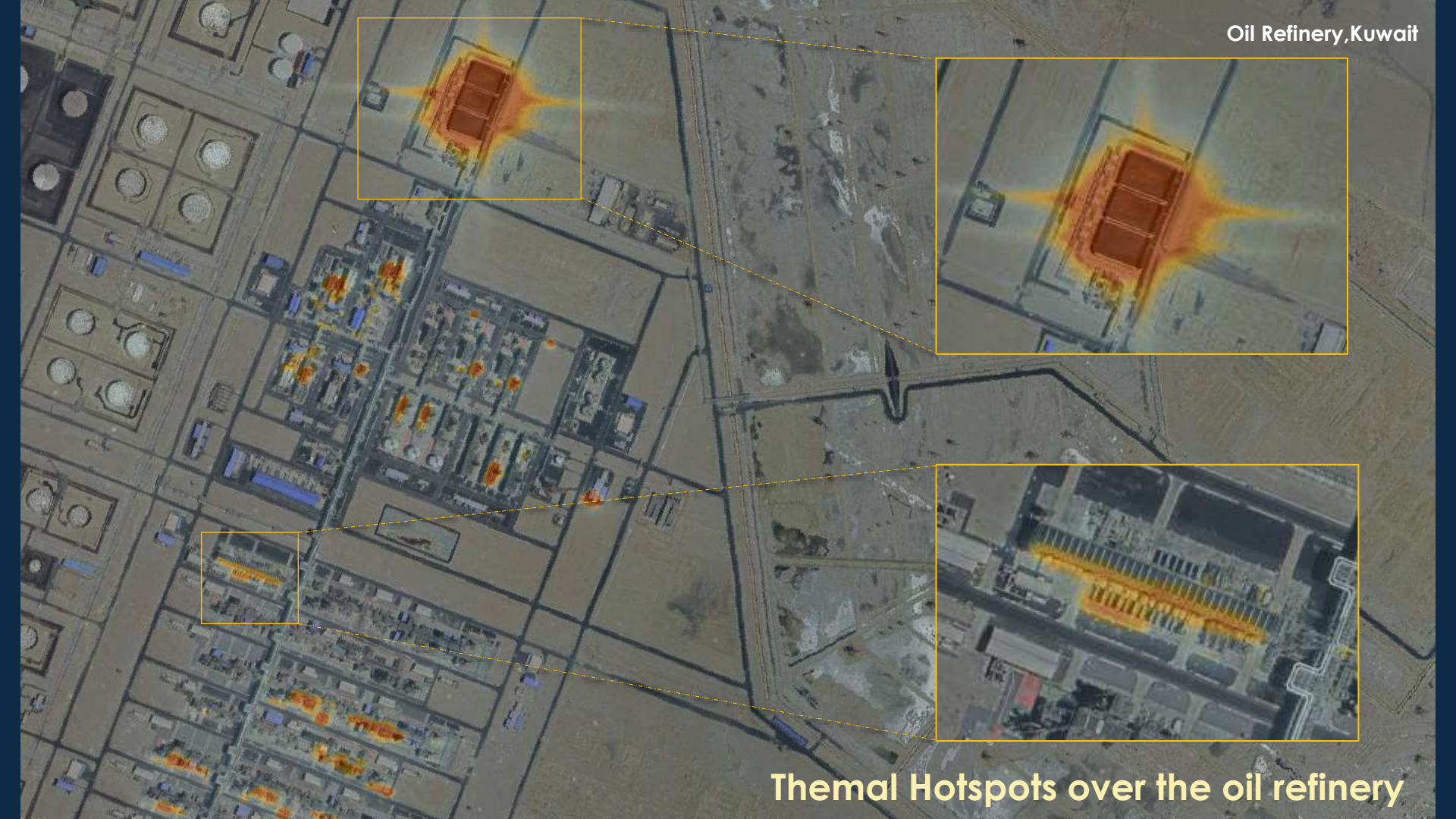


# 3.5 m thermal Image

Capture Date – 20 oct 2023 01:00 (Local Time )

Oil Refinery, Kuwait





Thermal Hotspots over the oil refinery

# Precision Targeting

# Precision target acquisition

Latitude: 28.9548242 Longitude : 94.8351456



Target plotted on Google Earth Image



Latitude: 28.9548242 Longitude : 94.8351456

Error : 3.6 meter





# THANKS

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Questions?

[www.suhora.com](http://www.suhora.com)

