



# AUDACIOUS

Support for Ukraine Maritime Raiding Operations

THE

GRAND

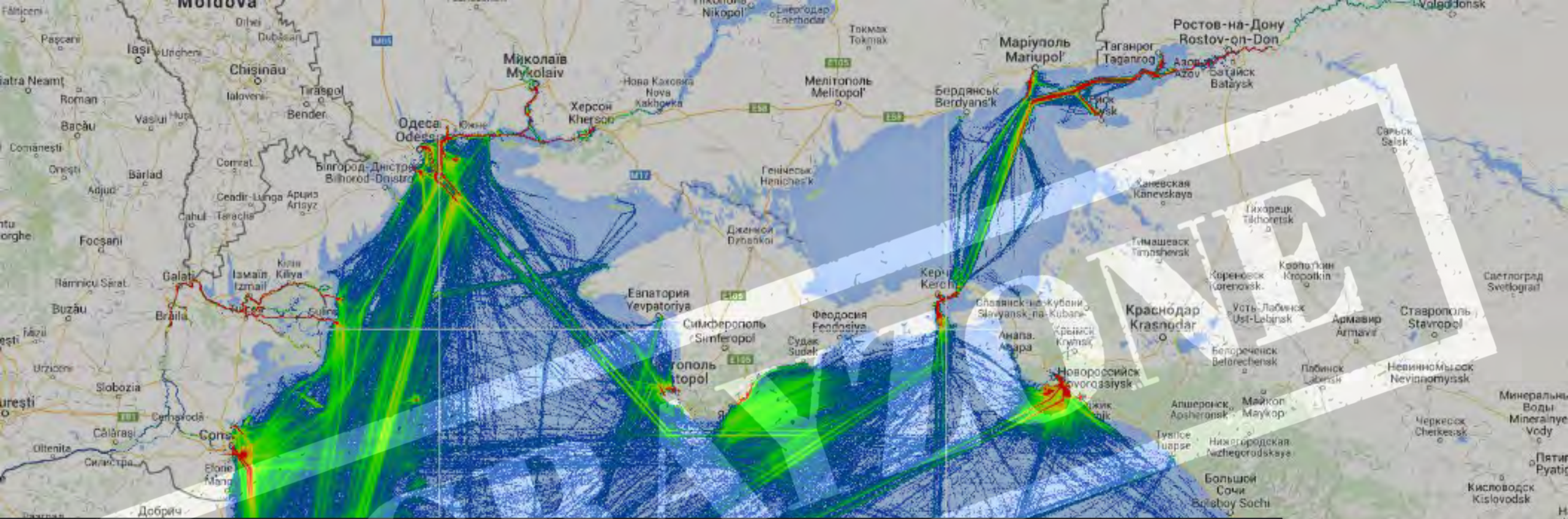
OPERATIONS



# BLACK SEA MARITIME OPERATIONS

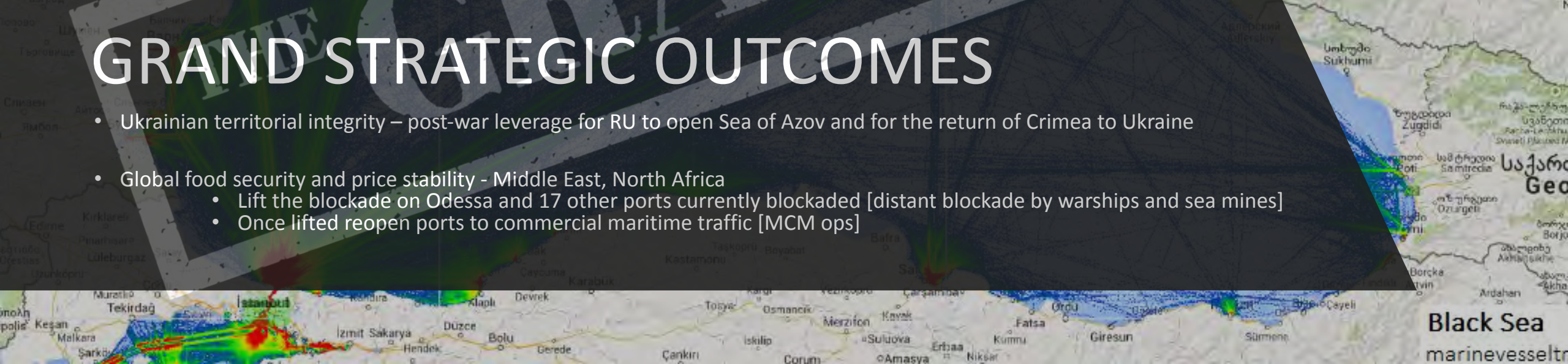
- Ukraine provides 20% of the world's supply of cereal grains.
- Commercial marine traffic from Black Sea ports is responsible for over 70% of Ukrainian exports.
- The Russian blockade since February 28<sup>th</sup> is threatening Ukraine's ability to successfully export last year's bumper harvest.
- Command of the seas off Ukraine's Black Sea coastline enables Russia to threaten Odessa and other ports and launch long-range cruise missiles into Western Ukraine.
- Lifting the naval blockade will both improve global food availability and Ukraine's economy and deny military advantage to Russia.





# GRAND STRATEGIC OUTCOMES

- Ukrainian territorial integrity – post-war leverage for RU to open Sea of Azov and for the return of Crimea to Ukraine
- Global food security and price stability - Middle East, North Africa
  - Lift the blockade on Odessa and 17 other ports currently blockaded [distant blockade by warships and sea mines]
  - Once lifted reopen ports to commercial maritime traffic [MCM ops]



Black Sea  
marine vessel traffic



## STRATEGIC OBJECTIVES

- Degrade RU capability to blockade UKR and conduct littoral maneuver / resupply by sea.
- Isolate RU land and maritime forces in Crimea by denying resupply by sea and overland via Kerch bridge
- Maximize attrition of Black Sea Fleet and associated infrastructure to affect decision calculus and erode RU warfighting capability.

# OPERATIONAL OBJECTIVES

- **Contain and degrade** the Russian Black Sea Fleet to remove Russian freedom of maritime and littoral maneuver
  - Black Sea Fleet bottled up in ports
  - RU commercial traffic interdicted
  - Transnistria - Moldova resupply option denied
  - Crimea isolated from Russia
- **Protect and sustain ports and coastal shipping lanes**
  - Prevent interdiction by BSF and conduct MCM and maritime security operations
- **Impose dilemmas** upon Commanders & C2 across maritime and littoral domain

# TACTICAL OPTIONS

- Support UKR establishment of covert maritime ISTAR capabilities in Crimea and Russia
- Technical and operational support for UKR maritime raiding operations against RU maritime infrastructure
- Provision of PGMs for use by UKR coastal defence forces against Black Sea Fleet.
- Support for UKR to conduct maritime boarding and interdiction of Russian commercial Black Sea traffic
- Support for mine countermeasures to open Ukraine seaports

2-] (Navy), 1992-2006  
A2] (Navy), 1988-1991  
Aussia [1992-] (Navy), 2019  
Aussia [1992-] (Navy), 2015  
Russia [1992-] (Navy), 2018

Russia [1992-] - 2018)



N44°37'15", E33°31'09", 1.63nm from sel - Depth: 46ft  
Layer: -13ft to -23ft - Strength: 0.25 - No CZs  
Local time: 11:55:13 (Day)  
Weather: Clear sky - No rain - 25°C - Wind/Sea 0

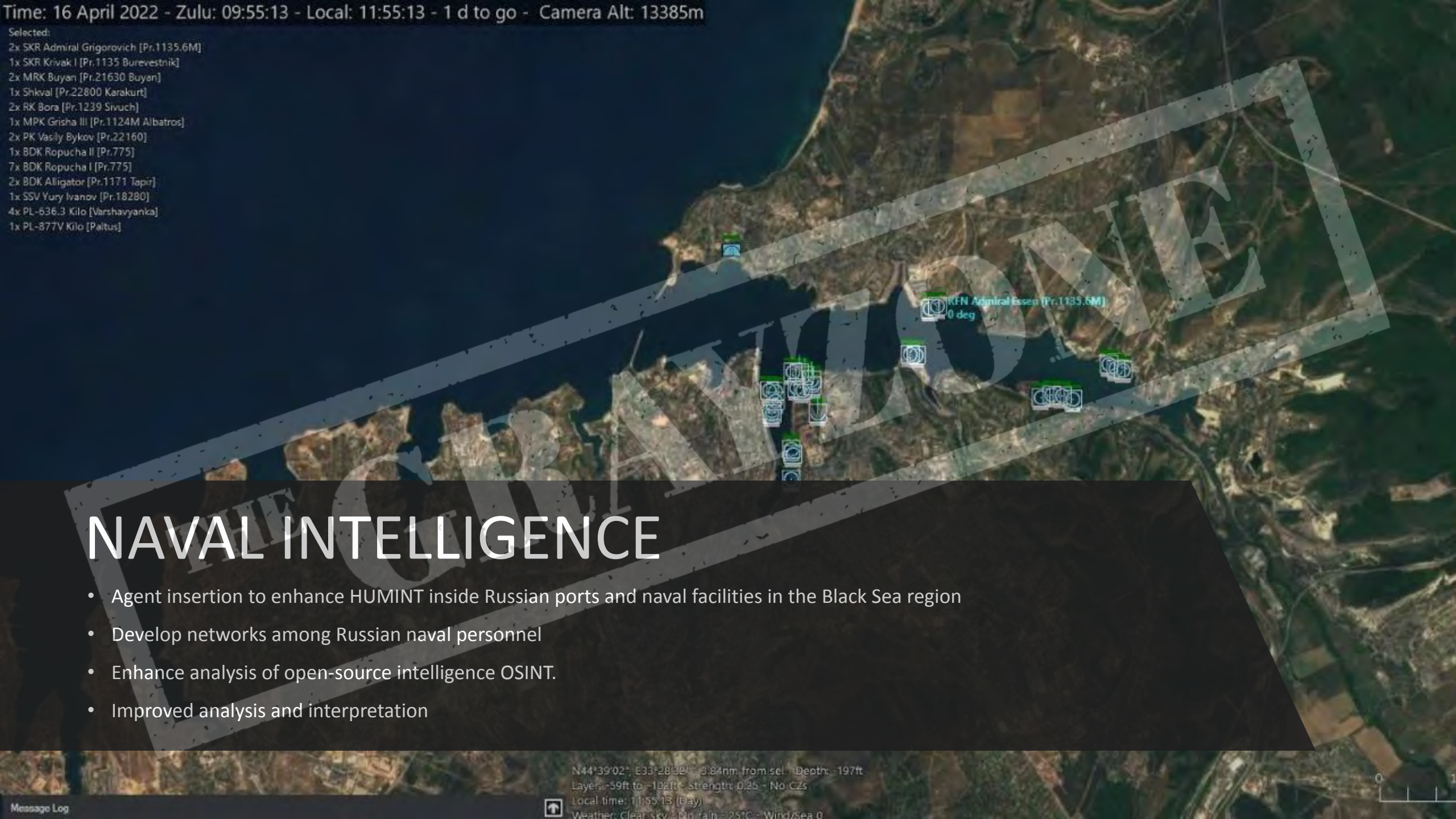


# MARTIME RAIDING CAPABILITY

- CGN Moskva provided a long-range air defence capability: her sinking leaves the RU fleet vulnerable to missile attack.
- This forces the Russian navy farther away from the Ukraine coast or into port, opening the potential for the Ukrainian Navy to launch littoral, inshore, coastal and riverine raiding operations.
- The exploitable sea area is relatively small just 160 nautical miles from Odessa to Sevastopol - this is well within the range of small assault craft.

Selected:

- 2x SKR Admiral Grigorovich [Pr.1135.6M]
- 1x SKR Krivak I [Pr.1135 Burevestnik]
- 2x MRK Buyan [Pr.21630 Buyan]
- 1x Shkval [Pr.22800 Karakurt]
- 2x RK Bora [Pr.1239 Sivuch]
- 1x MPK Grisha III [Pr.1124M Albatros]
- 2x PK Vasily Bykov [Pr.22160]
- 1x BDK Ropucha II [Pr.775]
- 7x BDK Ropucha I [Pr.775]
- 2x BDK Alligator [Pr.1171 Topir]
- 1x SSV Yury Ivanov [Pr.18280]
- 4x PL-636.3 Kilo [Varshavyanka]
- 1x PL-877V Kilo [Paltus]



# NAVAL INTELLIGENCE

- Agent insertion to enhance HUMINT inside Russian ports and naval facilities in the Black Sea region
- Develop networks among Russian naval personnel
- Enhance analysis of open-source intelligence OSINT.
- Improved analysis and interpretation

N44°39'02", E33°28'38" 3.84nm from sel - Depth: -197ft

Layer: -59ft to -102ft - Strength: 0.25 - No CZs

Local time: 11:55:13 (Day)

Weather: Clear sky - No rain - 25°C - Wind/Sea 0





# RIVERINE OPERATIONS

- Russia has limited shipbuilding capability, thus the yards at Mykolaiv are a key objective;
- Inshore waterways are critical to the defence of the frontline at Mykolaiv;
- This Equipping and training a Ukrainian naval riverine Commando force is a priority to;
  - patrol and ambush Russian engineers and Spetsnaz reconnaissance teams; and
  - harass and degrade Russian forces in hit and run operations from the waterways.



# RIVERINE EQUIPMENT

- **Urgent**

- Raider assault craft, 10 Meter Rigid Inflatable boats (RIB) - immediate issue of these craft will enable the UKN Navy to fit the platforms with their own weapon systems.
- RIBs are easier to deliver quickly to enable deployment of commandos in the support of Mykolaiv as a priority.
- DJI Maverick commercial drones for top cover.
- Night vision and thermal imagery cameras.

- **Longer Lead-Time.**

- Armored Offshore raiding craft ORC23 (UK) to provide fire support to RIBs and commando raiders.
- CB90 (Sweden) to act as fast deployment vessel carrying UKN Marines for hit and run operations.
- USV Oryx (Turkey) unmanned recon vessel (USV) equipped with a .50" remotely operated weapon station.
- Small military Gen3 drones.





# COASTAL OPERATIONS

- The key to operating in coastal areas is to take out coastal radar stations to remove Russian ability to detect raiding teams.
- Coastal Radar stations are likely to be well defended especially in Crimea and will have to be well planned and hit at lightning speed to ensure success.
- Agents already inserted into Crimea could provide vital intelligence for the naval commandos.



# HUNT AND DESTROY CONOPS

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- Hunt and destroy any Russian patrol craft operating in Dniprovskya Gulf and conduct beach reconnaissance from Kilburn Spit to Yavorlyk Bay.
- Identify good landing locations for a larger assault force for a future counter-attack.
- Establish a firebase and surveillance post at Ostrov Maysky an island in the middle of the Dniro river estuary.
- Using disguised civilian vessels retrofitted with lightweight Torpedoes (Q-Ships) to target larger vessels, together with with CB90 fitted with Hellfire missiles to target smaller vessels.
- The destruction of coastal radar stations would enable a tactical group of CB90s to ambush small warships leaving Sevastopol.



# ASW CONOPS

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- Anti-submarine operations using USV submarine hunter to find submarines and guide in Bayraktar TB2 drone equipped with light weight torpedoes.

THE SUBMAREZONE



# KERCH BRIDGE RAID CONOPS

- The destruction of the bridge over the Kerch Strait would require a cruise missile battery to hit the two concrete pillars either side of the central steel arch, which will cause a complete structural failure. This will prevent any road re-supply from the Russian mainland to Crimea and temporarily disrupt the shipping lane.



# MARITIME BOARDING CONOPS

- The navy to conduct underway training to enable them to seize vessels owned by Russian ship owners on the US, EU, UK sanction list.
- he seized vessels could be used offensively in a diversion attack against Sevastopol to cause confusion and cover for UKN naval vessels.
- The seizure of sanctioned vessels will hurt the Russian economy and force Russia to deploy Private Military Contractors (PMCs) to protect the vessels taking Russian manpower away from the war.

# COASTAL EQUIPMENT

## Urgent

- 10-meter RIBs, Javelin, MANPADS, night vision, thermal imagery, tactical drones.

## With Lead Time

- CB90 Combat Boats Hellfire equipped, Armored Offshore raiding craft ORC 23, USV Oryx, and Ulag (Turkey) fitted with anti-tank missiles as standard if available.
- Anti-submarine USVs, mini-submarines, Swimmer Delivery Vehicle (SDV).





A military aircraft, possibly a fighter jet, is shown on a runway. The aircraft is dark-colored with a red canopy. A large, semi-transparent watermark with the text 'THE CRASH ZONE' is overlaid diagonally across the image. The background shows a clear blue sky and some greenery in the distance.

# SPECIAL COMMANDO OPERATIONS

Crimea has been developed into a strategic hub for the RBSF and presents a clear threat to Ukraine, Georgia, Moldova and NATO countries.

# SPECIAL COMMANDO OPERATIONS

- Russian anti-ship capability is able to target any ship in the Black Sea. Crimea is home to the highest concentration of anti-ship missiles in the world, hidden in the cliffs around the peninsula.

- The main facility has the Utes Complex or Object 100. The complex has the dated Utes Coastal defence missile system, 3M44 missile (Nuclear capable) and other anti-ship missile systems.

- The 300P Bastion P mobile anti-ship missile system has also been deployed to Crimea.

- It is in the interest of Ukraine and NATO that this facility is damaged or destroyed as a long-term objective.



# NEW COMMANDO FORCE

- The Ukraine armed forces are clearly stretched and re-enforcing against the next Russian Offensive.
- The creation of a new Commando force trained in Scotland or Canada where the largest population of Ukrainian nationals are located with the specific mission focus on Crimea.
- The force of 1000 Commandos after training can deploy to Ukraine and come under naval command of Odessa.



# COMMANDO TRAINING

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- The Achacarry principals should be the guide for training in a modern context and input from the new Commando Force currently being developed by the Royal Marines would be useful.
- Recruited from ex-military Ukrainians abroad but open to other nationals with relevant experience.
- Basic training should be completed by the unit in the use of all troop weapons including mortars, anti-tank manpads, sniper craft, cliff assault, small craft training, ship boarding techniques, demolition ground and subsurface, combat swimming, swimmer delivery vehicles, anti-ship mines, drones, cyber, signals, electronic warfare, jamming. Full orientation of Crimea and the Ukraine coastal area and target recognition Russian forces and equipment.
- Specialist training for chosen men (Russian speakers) in covert undercover missions advanced small arms training, sabotage training to disrupt civil installations such as electrical sub stations, railways, cyber, hacking skills, locksmith training, advanced unarmed combat, target training to identify high ranking military officers for assignation while off duty in Crimea.
- Equipment for training. to be identified in planning.



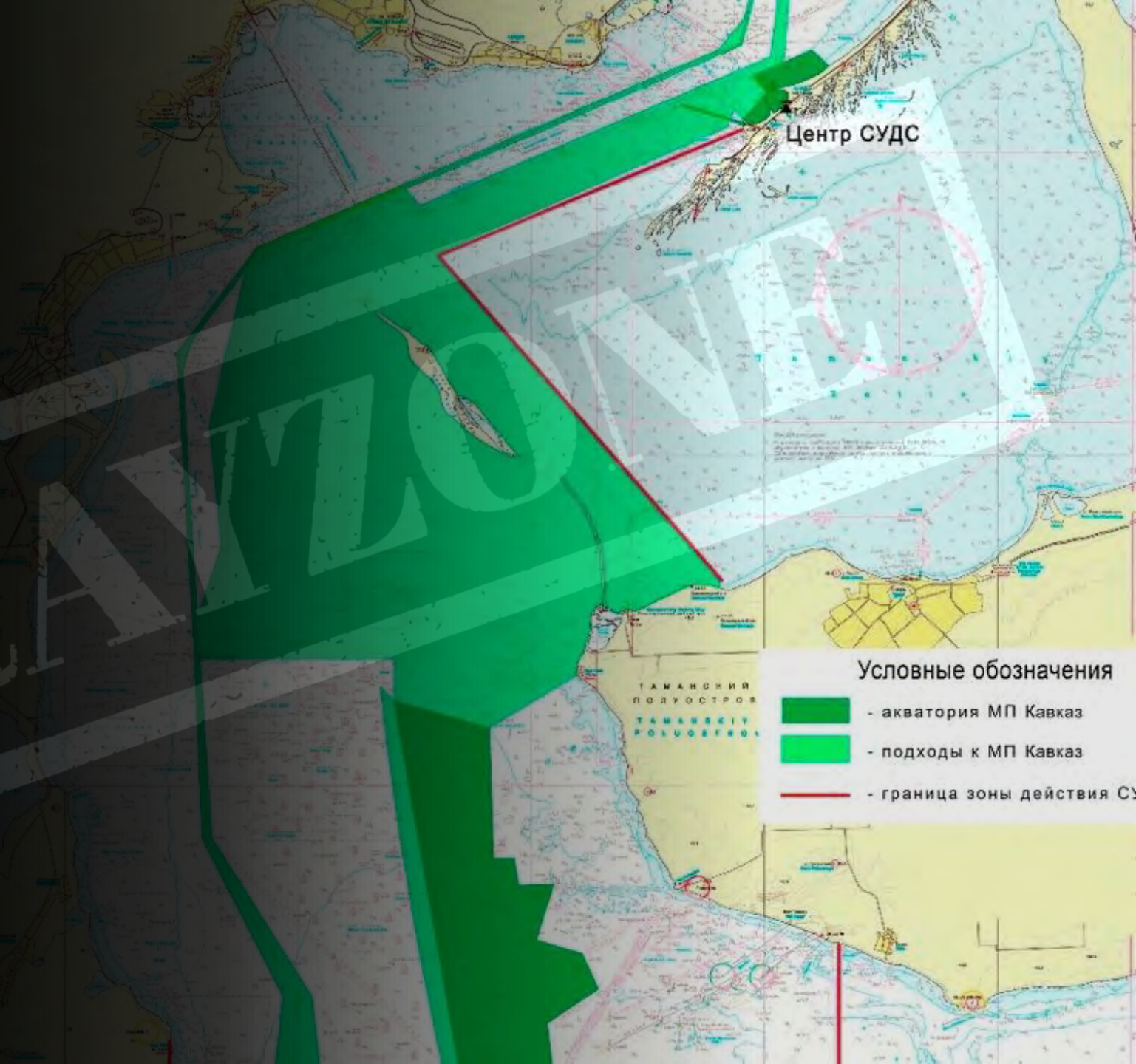
## SPECIAL COMMANDO OPERATIONS - POTENTIAL TARGETS

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- Locate and destroy mobile missile vehicles such as the Bastion in Crimea.
- Locate and destroy hardened coastal radar systems such as Feodosiya station and others.
- Work behind enemy lines in hit and run operations to support the defence of Mykolaiv.
- Combat swimmer and SDV mine operations against Russian warships docked in Sevastopol.
- Conduct a large-scale Commando assault of Utes missile complex when the UKN Navy is capable enough to support a diversionary attack on Sevastopol.
- Attacking and harassing Russian naval ships transiting the Kerch strait using portable missile systems.
- The use of unmanned submarines to attack auxiliary ships in port.

# SUMMARY

- The UKN Navy needs mobility to pose a threat to Russian naval forces.
- The development of a small specialist maritime raiding capability using commercial training and equipment shipped by merchant vessels or by road through Romania can achieve this.
- Russian outdated doctrine will struggle with a highly motivated and well-equipped naval force conducting hit and run operations.
- A new Ukrainian commando force will bring shock and awe, hitting high value targets breaking the morale of the Russian naval forces.



# ANNEX – KERCH BRIDGE OPERATION

•**Mission.** Disable the Kerch Bridge in a way that is audacious, disrupts road and rail access to Crimea and maritime access to the Sea of Azov.

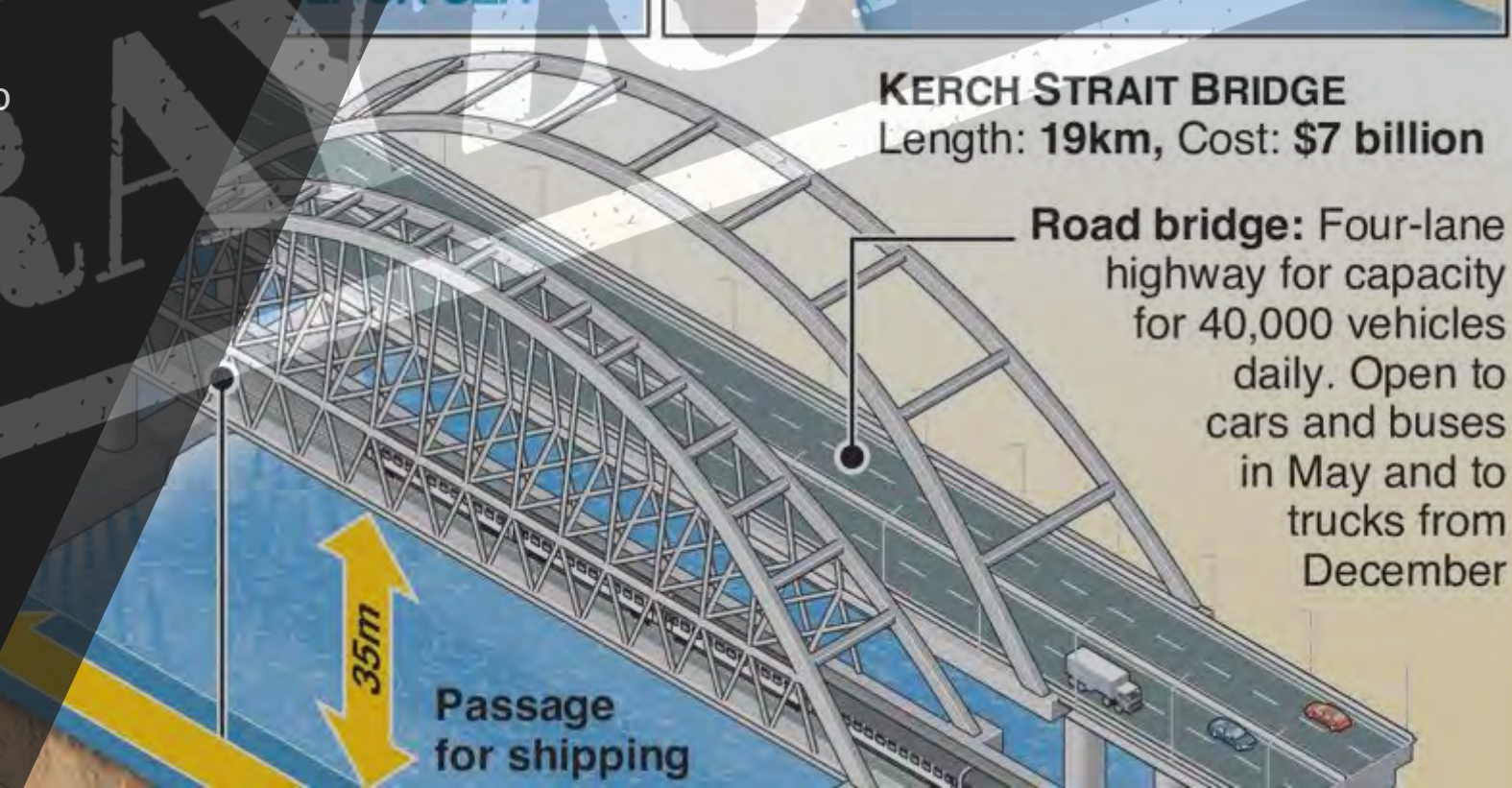
•**Scheme.** Assume 20 Piles and 10 need to be “cut”. Assume each pile is 1.4m diameter steel pipe with a wall thickness of 40mm. Team of Attack Divers and or UUVs equipped with Limpet Mines and Linear Cutting Charges.

- Disable the piling of the highlighted section of KB (Russian Side) Minimum of 2 cuts 2m apart.
- 2. Sink the Guard Ship/a ship in the KYC under the KB.



**KERCH STRAIT BRIDGE**  
Length: 19km, Cost: \$7 billion

**Road bridge:** Four-lane highway for capacity for 40,000 vehicles daily. Open to cars and buses in May and to trucks from December



Passage for shipping

## DECISIVE POINT: BRIDGE DESIGN FLAW

### INNOVATIVE CONSTRUCTION

The bridge's pillars are supported by **several thin pylons** sunk deep into the ground, with enough free space between them to **allow the strong currents to flow through** with minimal friction.

The bridge supports were sunk as 56 m deep.

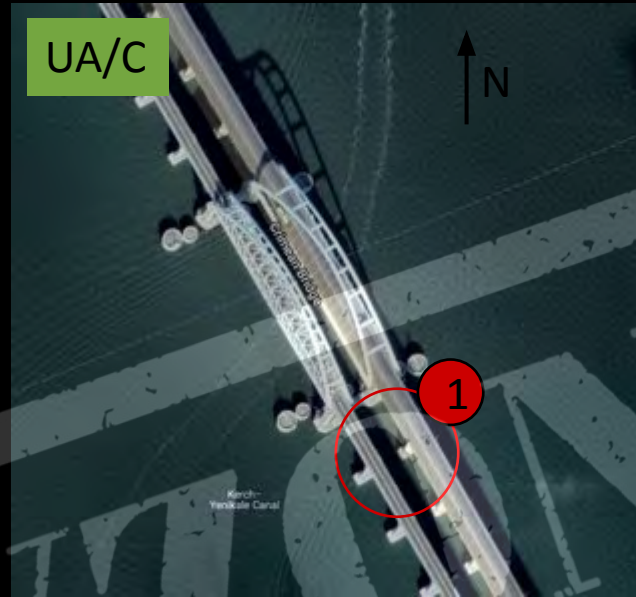
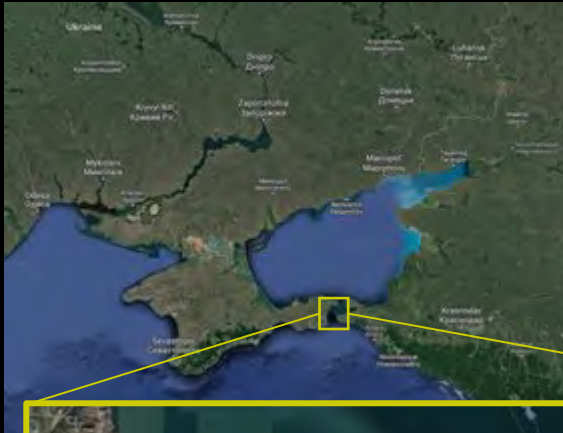
MORE

Up to 30

35 - 56m

- Key weakness is several thin pylons used to support the main span.
- The rest of the foundation is made of steel pipe piles of 1,420 mm in diameter with wall thickness of 16, 20 and 40 mm.
- The highway section foundation numbers more than 2,500 piles of this type with depth from 23.5 m (Kerch side) to 89 m (Tuzla split).
- Total weight of all pipe piles in the highway section foundation exceeds 12,500 t, total length is more than 160 km





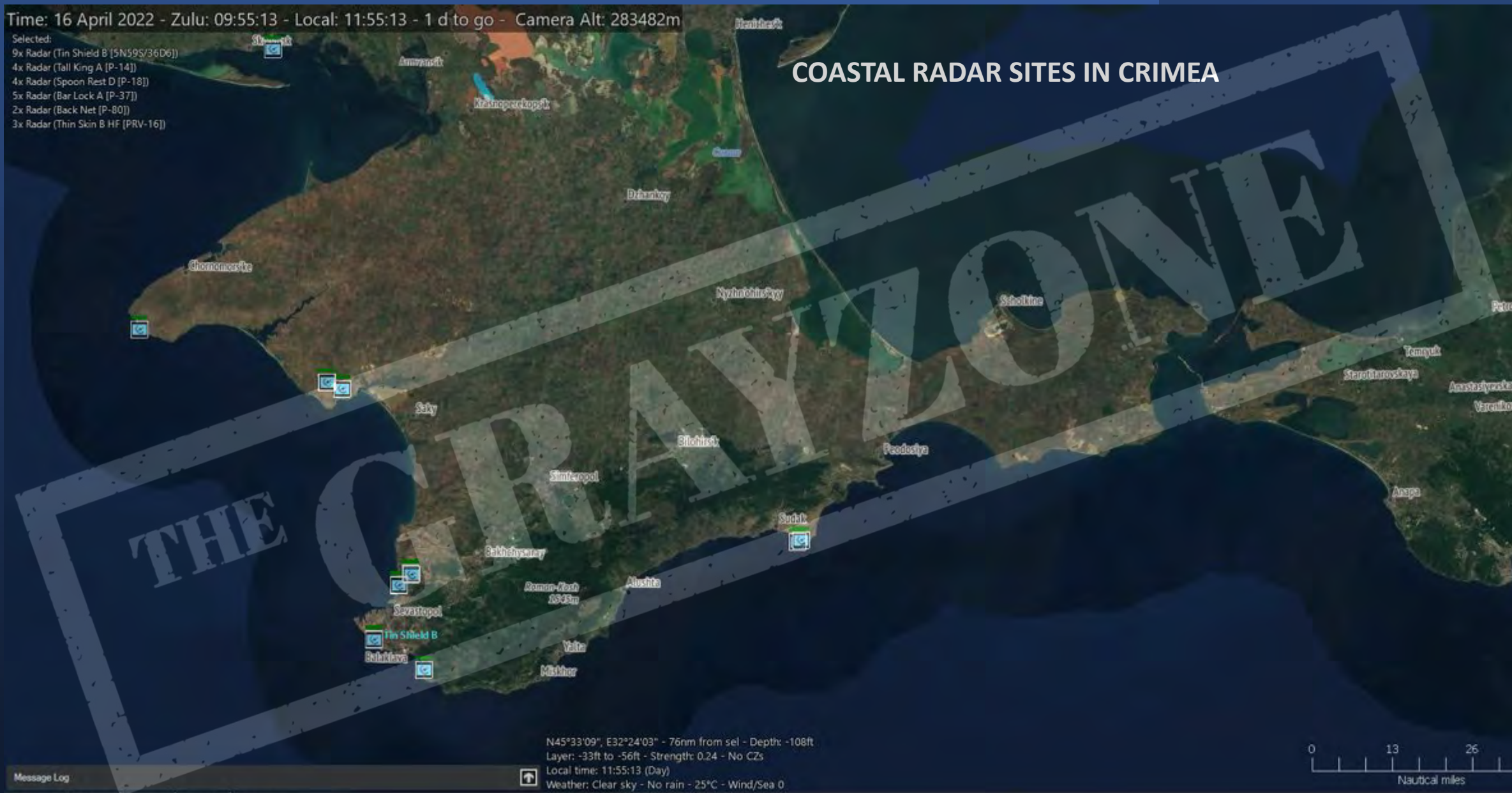
### Factors:

1. The Kerch Yenikale Canal (KYC) is ~8.9m deep and provides a single navigable route for large ships under the KB.
2. The deck of the KB is ~30m above Sea Level and supported by pillars which are supported by steel piles (35 - 56m long). The depth of the water around the pillars of the KB is ~10 m. This is the weakest part of KB.
3. Do the RU Armed Forces know how vulnerable the KB is to destruction? What countermeasures could be expected?

Time: 16 April 2022 - Zulu: 09:55:13 - Local: 11:55:13 - 1 d to go - Camera Alt: 283482m

- Selected:
- 9x Radar (Tin Shield B [5N59S/36D6])
  - 4x Radar (Tall King A [P-14])
  - 4x Radar (Spoon Rest D [P-18])
  - 5x Radar (Bar Lock A [P-37])
  - 2x Radar (Back Net [P-80])
  - 3x Radar (Thin Skin B HF [PRV-16])

## COASTAL RADAR SITES IN CRIMEA



N45°33'09", E32°24'03" - 76nm from sel - Depth: -108ft  
Layer: -33ft to -56ft - Strength: 0.24 - No CZs  
Local time: 11:55:13 (Day)  
Weather: Clear sky - No rain - 25°C - Wind/Sea 0

