



Anglo-Eastern Group

# MARINE SPATIAL PLANNING

## A SHIP MASTER'S PERSPECTIVE

Capt. Shashi Khanna



# MARINE SPATIAL PLANNING

Recreation

Economic & environmental objectives

Food

Marine life protection

Offshore aquaculture

**HOW DOES IT AFFECT ME AS A MASTER?**

Mineral extraction

Conserve nature

Environment

Sustainable economic development

Shipping / transportation

Ecosystem based



- May not be on a consultative body
- Expected to operate efficiently in a changed environment



# TYPICAL CHALLENGES

**CONGESTED PORT APPROACHES**







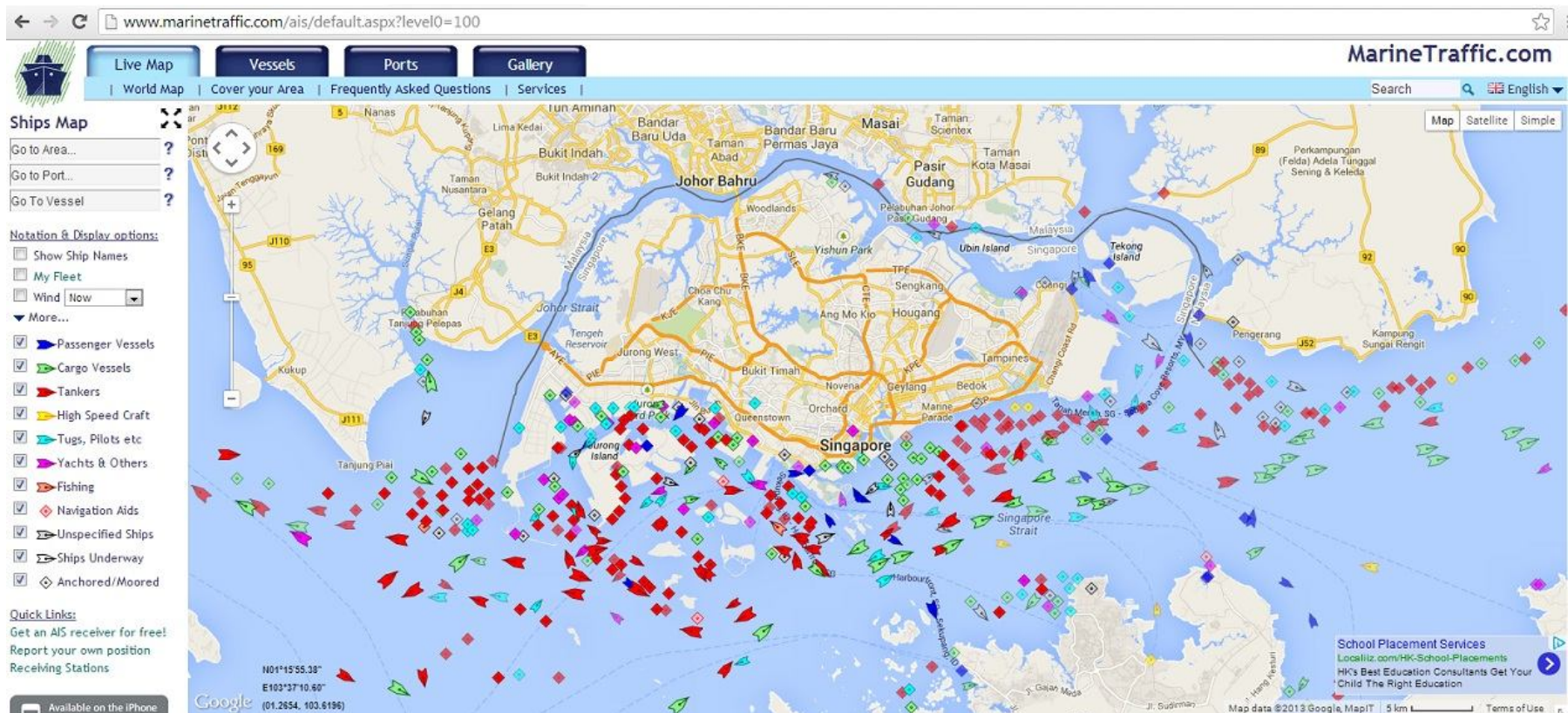
## APPROACHES TO HONG KONG







## SINGAPORE





## CONGESTED ANCHORAGES







Do you have the stomach for this manoeuvre? !!





# TYPICAL CHALLENGES

**PILOT BOARDING POINT IN THE MIDST  
OF FISHING GROUNDS**















## COMPLETE RELIANCE ON PILOT



Damaged Cosco Busan vessel. Photo credit: US Coast Guard





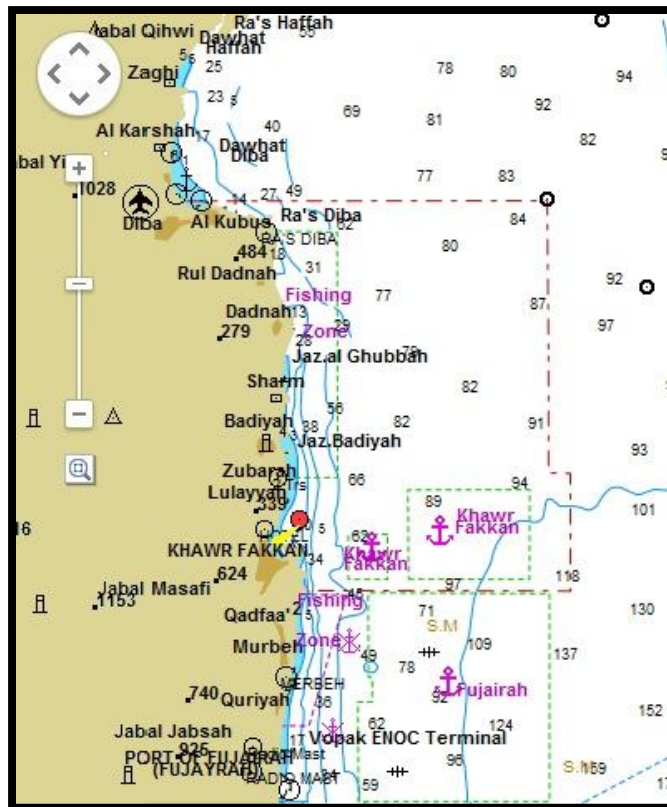
# TYPICAL CHALLENGES

**SAFE BERTHS**



# UNSUITABLE ANCHORAGES

CONVENTIONAL WINDLASS DESIGN FOR ANCHORAGE DEPTHS OF 82.5 MTRS

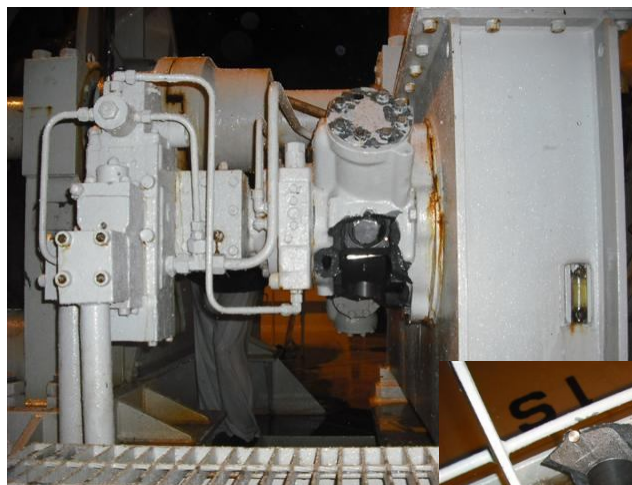






# UNSUITABLE ANCHORAGES

## ANCHOR DAMAGES







## UNSUITABLE ANCHORAGES

- Distance between vessels  $< 2$  cables at times
- Strong currents





# UNPROTECTED BERTHS







## UNSAFE BERTHS



## UNSAFE DISTANCE BETWEEN VESSELS





## UNSAFE BERTHS

- Ships passing close by at high speeds induce high peak loads which may result in mooring failures
- Enforce speed restrictions



# UNSAFE PORT



**BIMCO**

23 Oct 13 - 16:37

Redefining the 'safe' port

Article written by Watchkeeper, BIMCO

We all think we know what is meant by a “safe” port; one where a ship may lie safely alongside and, aided by an “always afloat” clause, with sufficient water under the keel at all stages of the tide. But ships are getting bigger and deeper, longer and wider, and the “envelope” of a ship often finds itself being squeezed into spaces that will only just accommodate her.

We might also be considering the manoeuvrability of big modern ships. When we consider the performance, we note that the new ship has managed to perform at the contracted speed on her trials, but there will be less attention paid to the performance of the vessel at slow speed, when she is arriving and departing from a port, making her way through a crowded anchorage. We might consider that it is the performance of the ship that is the critical issue here, but how much does the port manage to accommodate the difficulties of handling bigger ships, which may struggle to stay in an approach channel if there are crosswinds? Is the channel wide enough for the size of ships it is trying to attract? Have the facilities expanded in line with the bigger vessels?



## UNSAFE PORT

- Most embarrassing if you don't even know the location of the port!





# TYPICAL CHALLENGES

## TRAFFIC SEPARATION SCHEMES

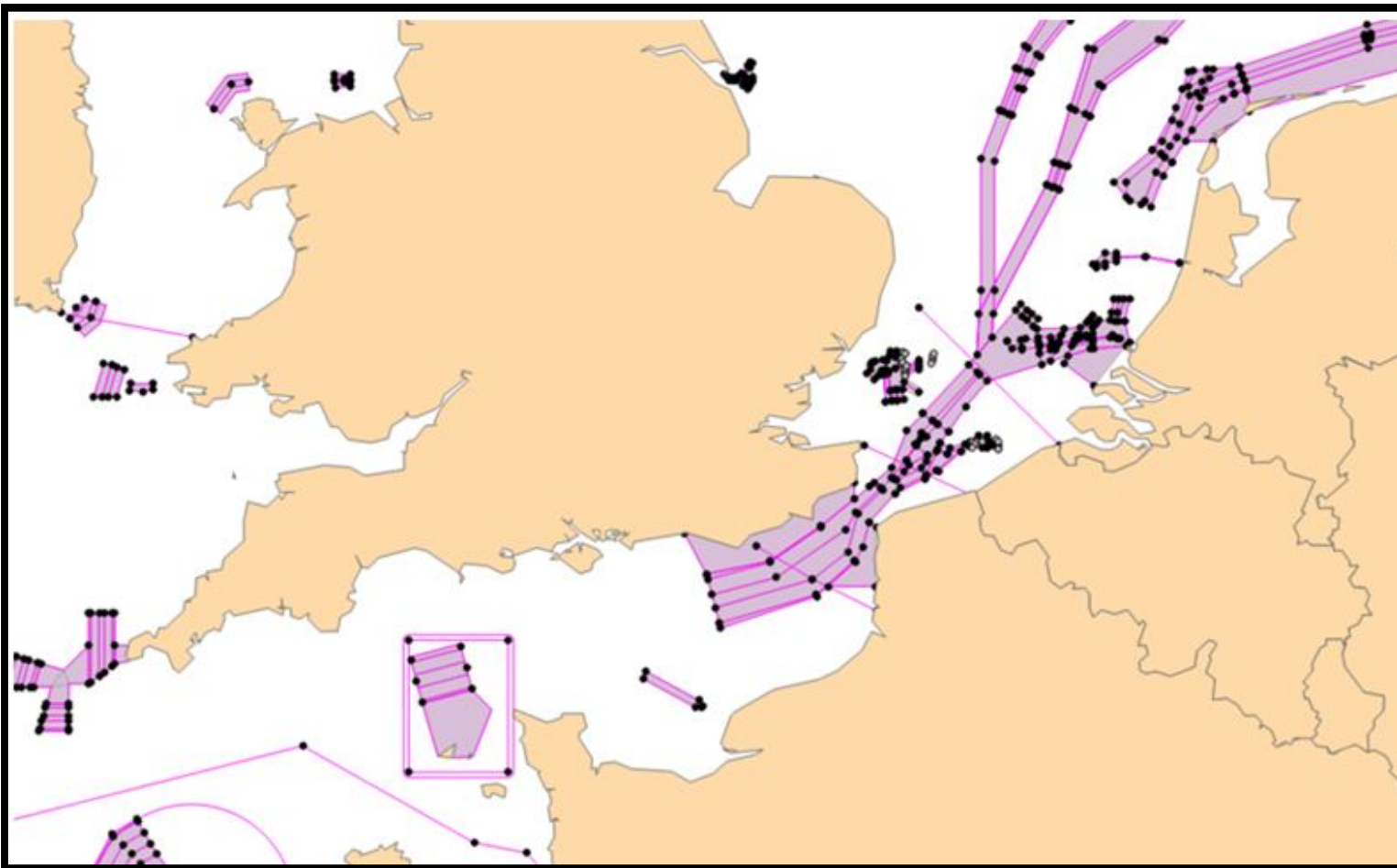


# LAND – SPEED LIMITS IN LANES





SEA???





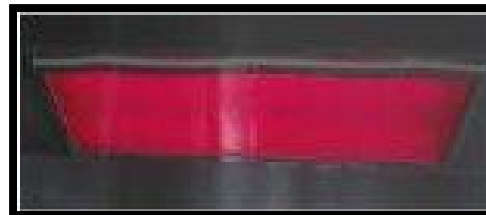
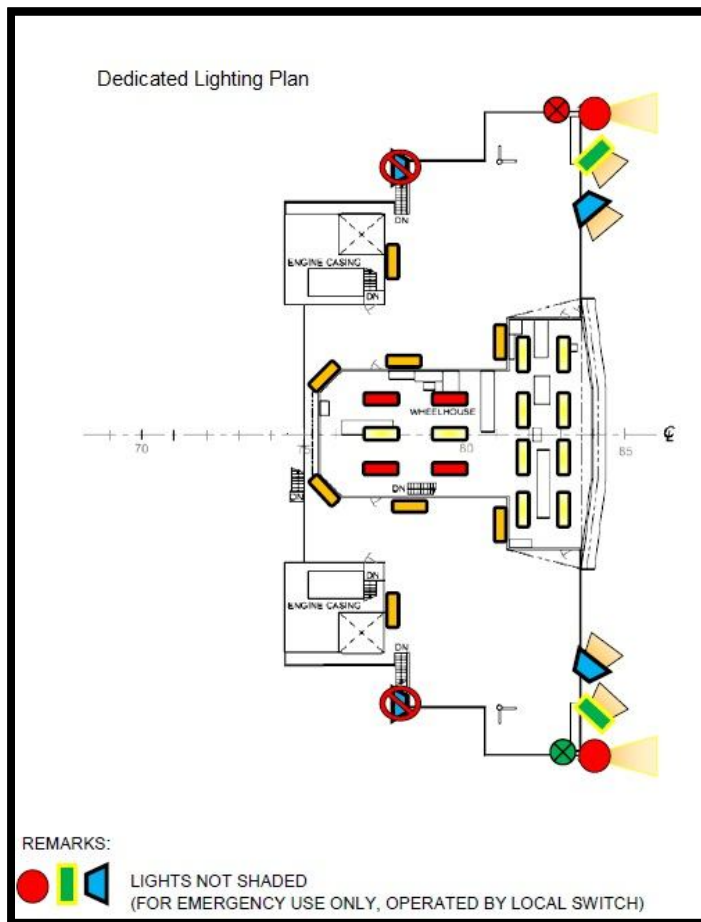


# CONCLUSION





# CONCLUSION







# CONCLUSION



Spare a thought for the men and the women who brave the seas!





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THANK YOU!