Australian Waterborne Transport

Excellence in Transport Policy

Dr. Stuart Ballantyne
Chairman
SEA TRANSPORT CORPORATION

Forefathers with VISION (but no regulators)

Paddle Steamers such as this could transport up to 2,000 bales of wool along the Murray River from 1851

The engines were predominantly 20hp 2 cylinder steam engines with side paddles ….. Log fueled !

The Murray is navigable for 970 kms and to an elevation of 36 metres above sea level

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Policy advisors with their myopic view of road and rail strategies, have caused a change:-

To now carry 2,000 bales of wool requires 20 semi trailers

The average horsepower each semi is 400hp !

Replacing a 20 horsepower river barge engine with 8,000hp and the exhaust gases emitted does not seem to depict progress commercially, technically or environmentally

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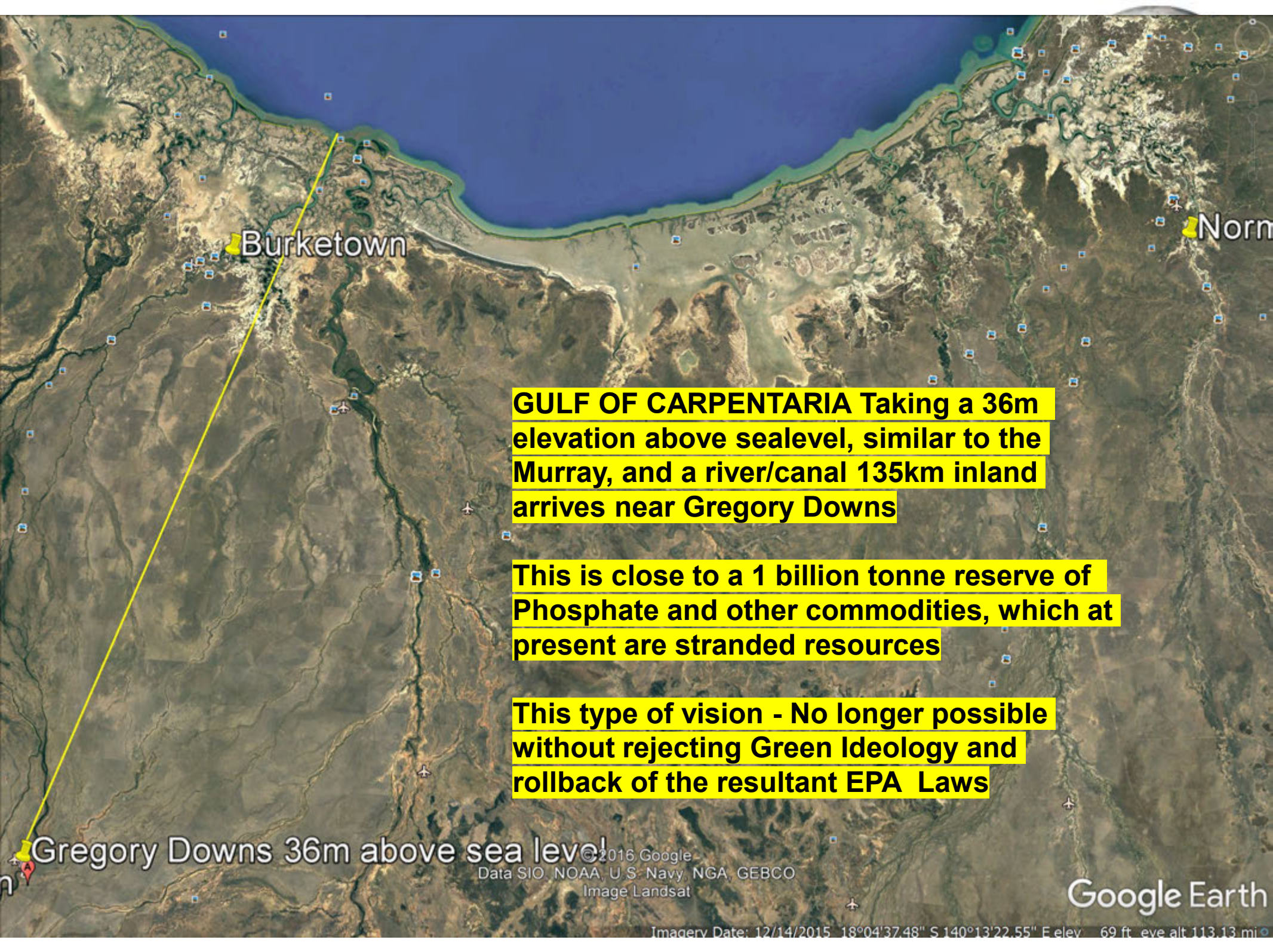
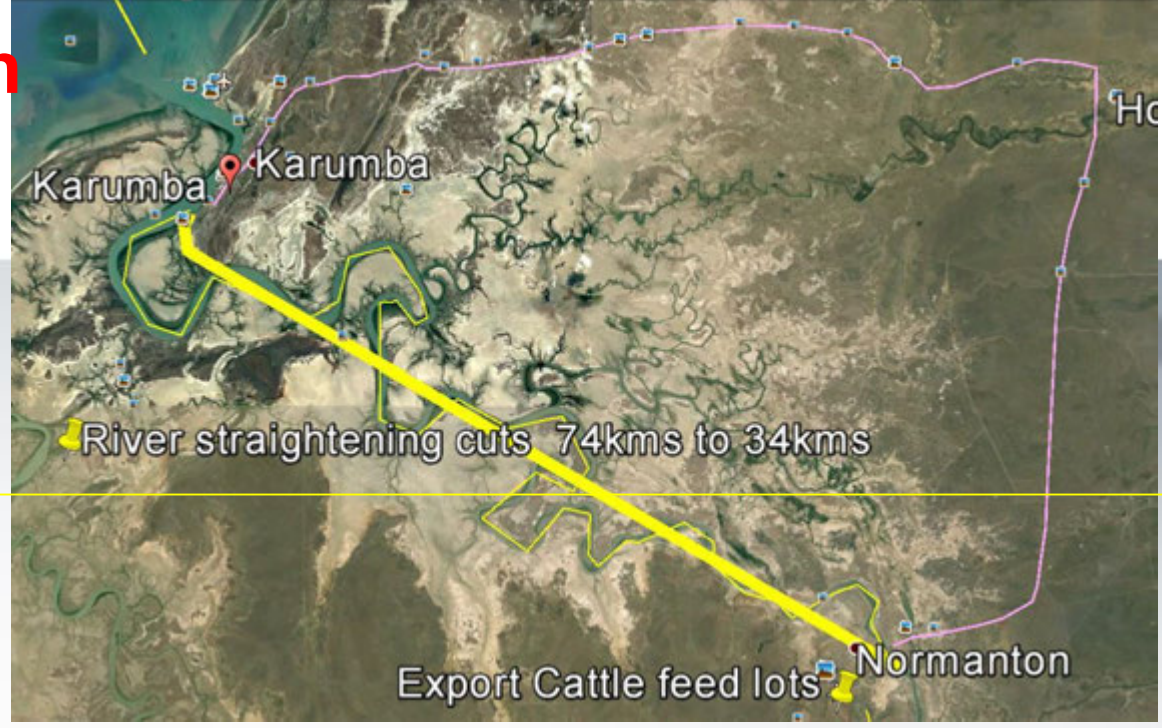

Burketown
Norm
GULF OF CARPENTARIA Taking a 36m elevation above sealevel, similar to the Murray, and a river/canal 135km inland arrives near Gregory Downs
This is close to a 1 billion tonne reserve of Phosphate and other commodities, which at present are stranded resources
This type of vision - No longer possible without rejecting Green Ideology and rollback of the resultant EPA Laws
Gregory Downs 36m above sea level
©2016 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
Google Earth
Imagery Date: 12/14/2015 18°04'37.48" S 140°13'22.55" E elev 69 ft eye alt 113.13 mi

Can Shipping compete with the Road ?

Karumba to Normanton
An example of river transport cost savings against a dog leg road route



Road distance is 72kms (Sealed)

Road transport, at 10c/t/km, this equates to **$7.2m** for 1 million tonnes
Road maintenance at $13k/km /p.a*. **= $0.94m p.a** (*source Burke shire)

Total $8.14/Tonne

River Distance is 74km

River transport via 4000t vessels at 1.8c/t/km, is **$1.3m** for 1 million tonnes
Straightening the Norman River reduces the river distance from 74km to 34kms reducing the cost to **$612,000** for 1 million tonnes **Total $0.61/T** (93% reduction)

Advantages ;- Mini Port is close to Highway
Mini port is close to the Croydon railway (tourist & commercial opportunities with graphite mines)
Makes regional farmers & exporters competitive

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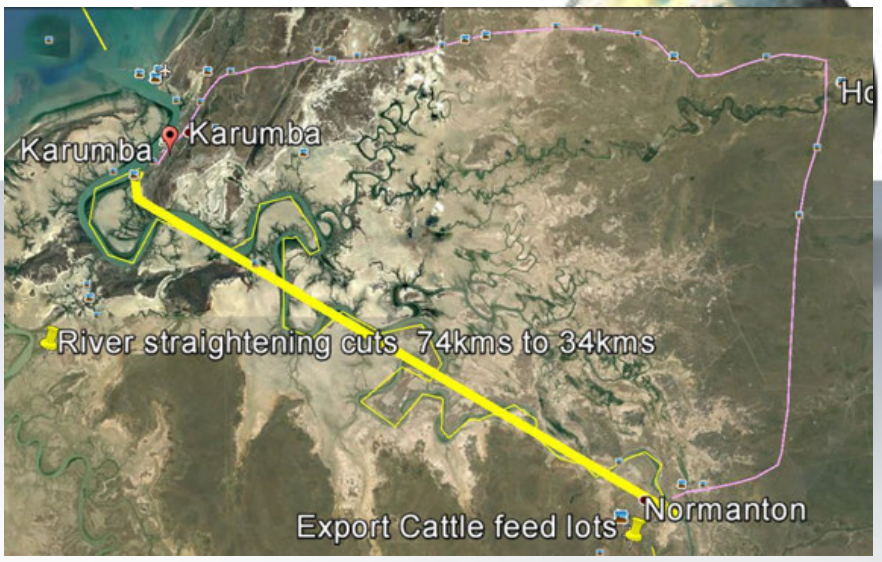
Karumba to Normanton mini port
An example of river transport fuel and emissions reductions



Road distance is 72kms (Sealed)

Road transport, at 1.2 Megajoules/tonne-km
this equates to 86.4 million Megajoules for 1 million tonnes

River Distance is 74km

River transport at 0.2 Megajoules/tonne-km
this equates to 14.8 million Megajoules for 1 million tonnes
Straightening the Norman River reduces the river distance from 74km to 34kms
this equates to 2.4 million Megajoules for 1 million tonnes
The Co2 emissions of a straightened river over the existing road transport is then reduced by **96%**

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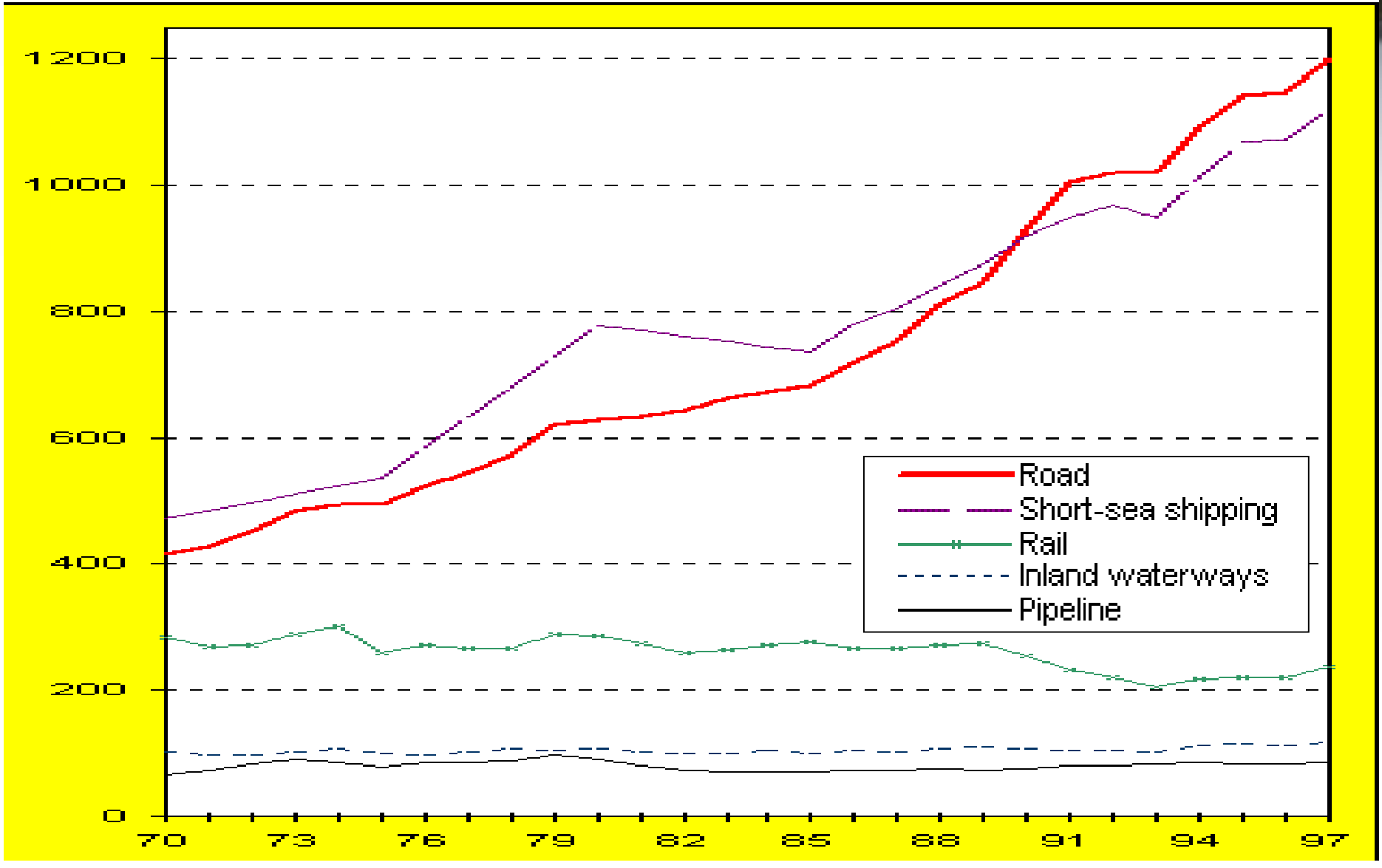
Present status– Coastal Shipping

- Carrying only 4.8% of the nation's cargo (globally it is 95%)
- Too many Regulators for too few ships
- Anti –shipping legislation, particularly fiscal policy
- Fear of unions with poor attitudes by all stakeholders
- Investors regard the Australian industry as "**high risk**"
- There is little or no port infrastructure suitable for modern roro tonnage, small bulkers or pallet carriers
- Lack of Government interest (av budget 60% roads, 30% rail and 10% ports)
- Lack of skilled people for ships, ashore or regulators

Should Australia invest in Rail ??

Let's look at Europe



- **Rail cannot increase freight volume, so why pour more money into it??**

Should Australia invest in Roads ??

Let's look at Current Prices

		CAPEX		OPEX for 100km	Total cost/T for 5Mtpa	
Cost Comparison		excl permits, mob & demob	$m for 100km	Cost per Tonne	(incl capex @ 6%)	
Haul road		25000 per km	$8	$9.00	$9.11	to port
Canal - flat soft land		350000 per km	$40	$1.80	$2.36	to vsl @anchor
Sealed road for triples		300000 per km	$35	$9.00	$9.49	to port
Pipeline water/dewater cap $50m	for 4MTpa	550000 per km	$110	$0.96	$2.50	to port
wat/dew cap $60m	for 10Mtpa	750000 per km	$140	$0.49	$2.45	to port
wat/dew cap $70m	for 20Mtpa	1000000 per km	$175	$0.31	$2.76	to port
Railroad		4000000 per km	$405	$6.00	$11.67	to port
		Incl $5m for vegetation/afforestation				

Can Shipping compete with the Road ?

- *"We can transport a container from Italy to Spain at a cheaper cost of a truck's fuel and toll charges"…….*
- *…."Each terminal handling fee is 15 euros (A$26) for a trailer, or 50 euros (A$85) for a prime mover and 12m trailer"*
- *…."I cannot believe that Australia does not have a coastal Roro system"*

Dr Emanuele Grimaldi

Managing Director Grimaldi Lines, Italy

Interferry Board Meeting, Cancun Mexico Jan 2016 reporting on the successful MOS (Motorways of the Sea) system

Infrastructures -The Good (European standard)

Infrastructures -The Bad and Ugly (third world standard)

Toondah Harbour – Brisbane, Queensland, 2018, no progress for over 20 years because of environmental constraints. A National disgrace for a harbour that carries 200,000 vehicles & 900,000 passenger (many tourists) p.a.

There are NO RORO facilities in any State except Vic and Tas suitable for modern roro and ropax vessels

Hindrances to Coastal Shipping–
Environmental over-regulation

Quotes from Ports Conference Bris Nov 2005

- *"The Tragedy of (EPA) regulations is preventing port expansion, export and job opportunities"*

  Warren Truss, Federal Transport Minister

- *"The torturous path of EPA regulation is a hindrance to our port and cost competitiveness"*

  Vincent Tremaine CEO Flinders Ports

- *"There is no pleasing them"*

  Paul Clauson, (ex Qld Attorney General)

This was reflected by every Port CEO from all States, evidenced today by ships at anchorages

" Anti- shipping infrastructure obstruction by fringe groups funded by U.S. Rockefeller and Pew Foundation"

Des Houghton Editor Courier Mail March 2015 "Who is pulling the strings?"

The key issue of Environment.

- **Sea transport has no noise pollution or congestion problems**
- **Sea transport has only 3 - 10% emissions per tonne/mile of cargo compared to road transport**
- **Greater environmental achievements can be made by Australia if we adopt a Sea Transport mentality**
- **Sea Transport unlike road & rail, does not require land resumption**
- **Due to the huge contributions to the environment available from Coastal Shipping, it should be supported by all environmental groups, if they are indeed serious about the environment**

SOLVING THE ISSUES

- **INCENTIVISE THE INDUSTRY**

- **Investment allowance for new ports & new vessels**

- **Total Fuel tax exemption for coastal shipping**

- **For Defence / BPF Training & qualifications:-**

  Implement dormant charters of new coastal commercial vessels conditional on each one having:-
  - **A helipad**
  - **Extra cabins for training personnel**
  - **Comms centre for naval / BPF / Emergency Response ops**

SOLVING THE ISSUES

- **INCENTIVISE THE INDUSTRY.**

....we must look to incentivise ship owners to:-

Use LNG - from our vast gas reserves

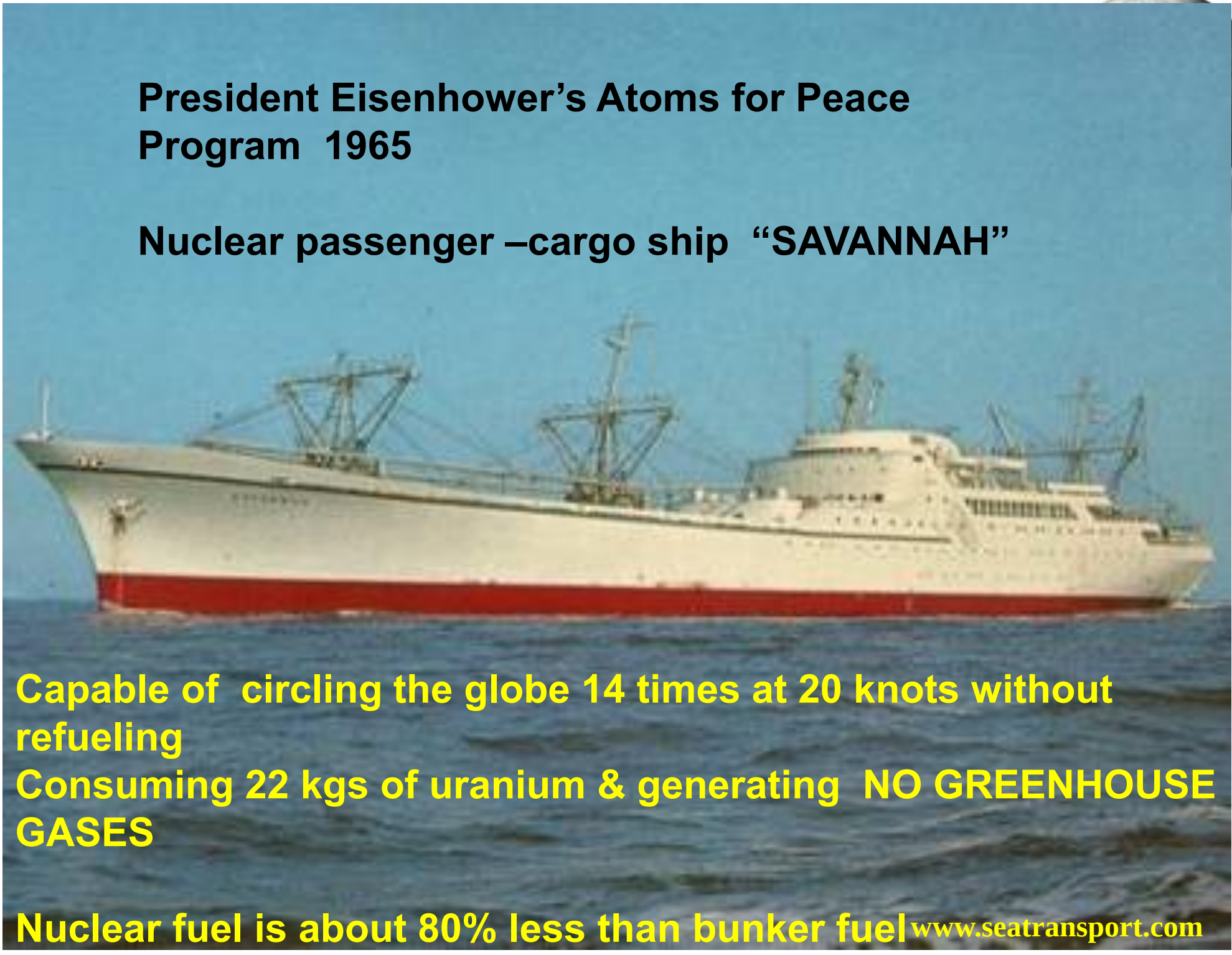
Use Methanol – from our vast coal reserves

Use Nuclear power - from our vast uranium & thorium reserves

Use Renewables - Solar, wind, combos

President Eisenhower's Atoms for Peace Program 1965

Nuclear passenger –cargo ship "SAVANNAH"



Capable of circling the globe 14 times at 20 knots without refueling

Consuming 22 kgs of uranium & generating NO GREENHOUSE GASES

Nuclear fuel is about 80% less than bunker fuel

www.seatransport.com

ACTION PLAN !!

“OZ-MoS”

Australian Motorways of the Sea

Objectives of Oz-MoS Project

Based on the highly successful Europe “MoS”
Reduce Australia’s road Deaths -**1,300 p.a**. !
& serious injuries **18,000 p.a.!** **COST - $27 bn p.a. !!** ABSTATS

REDUCING Australia's:-

Road Congestion & Pollution **$15bn p.a. !**

Road Maintenance **$8bn p.a. !**

Source ABSTATS

MoS services operating throughout Europe have shifted millions of truck movements off the roads

Key MoS infrastructure

The ship – which is “infrastructure mobile”, essentially an extension of the national highway

Key MoS infrastructure

The Terminal – sea/land interface – a parking lot

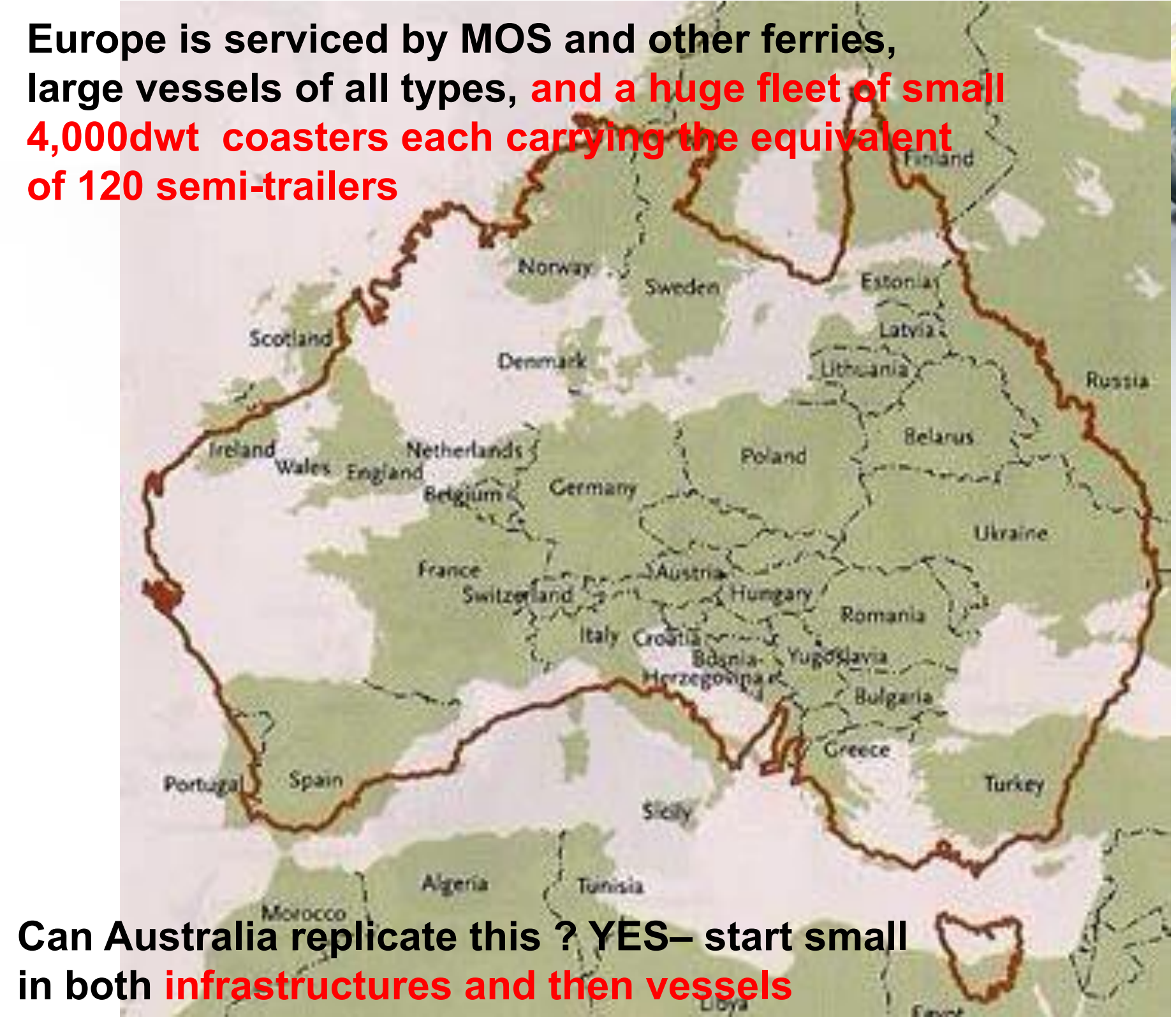
Roro ramps should be installed near ALL cities throughout Australia as a priority catalyst for Coastal Shipping, emergency response and defence activities

Market research required

- Traffic volume assessment for Oz-MoS routes
- Port/terminal locations and infrastructure analysis
- MoS service cash flow projections – estimate the subsidy level required

- **–THE KEY QUESTION -can the Oz MoS project be subsidised by savings in the present $50bn in road issues, plus savings to Navy fleet capability capex ? (the answer of course is a resounding YES, but Treasury needs the details)**

Europe is serviced by MOS and other ferries, large vessels of all types, and a huge fleet of small 4,000dwt coasters each carrying the equivalent of 120 semi-trailers

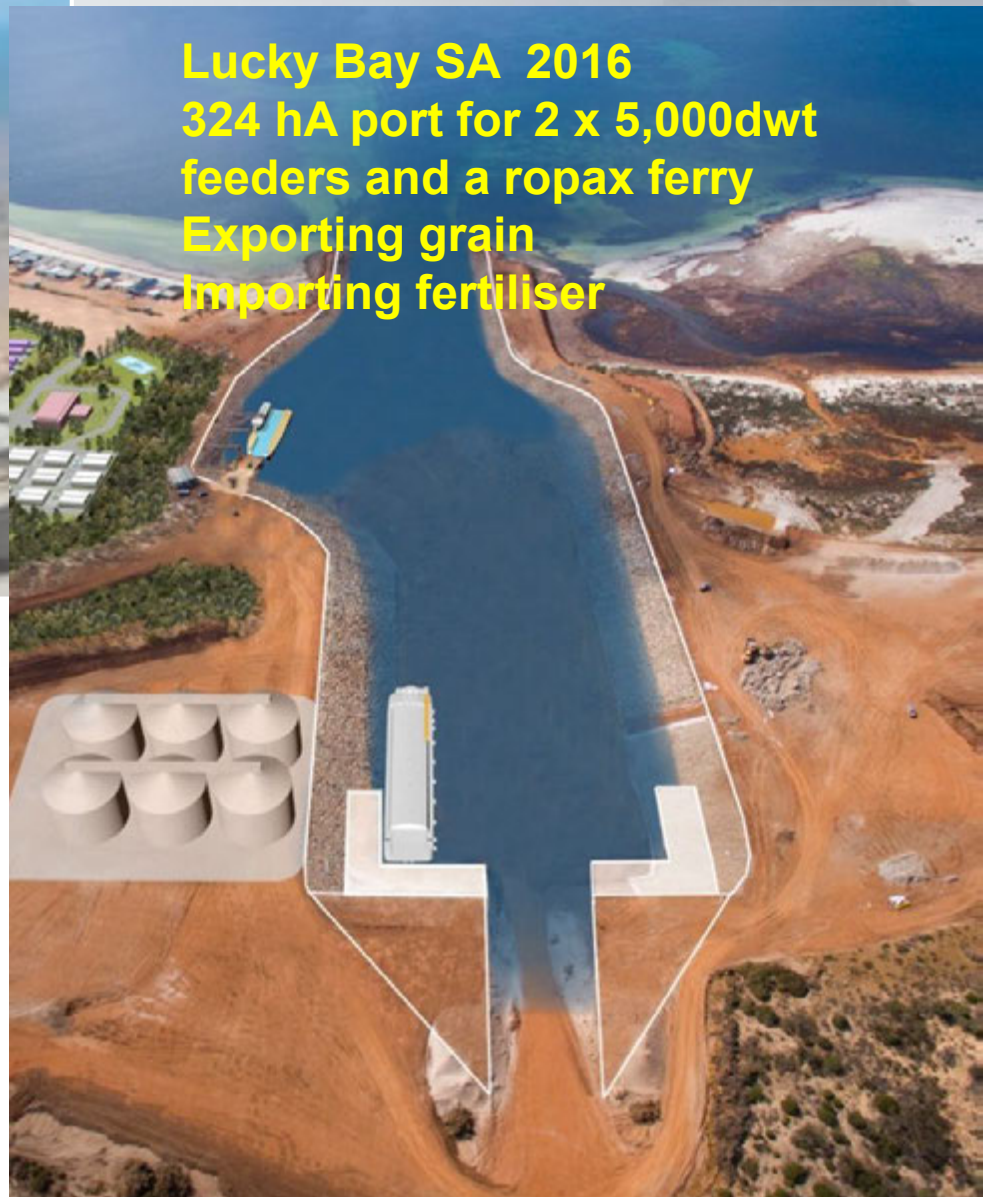


Can Australia replicate this ? YES– start small in both infrastructures and then vessels

ADDRESSING THE NATION'S KEY ISSUE – PORT INFRASTRUCTURES

Take the port to the Product - A PARADIGM SHIFT

----shallow draft transhipping centres



PORT INFRASTRUCTURES

Queensland for instance, only has 3 Ports for Cape size ships and 4 other trading ports (for 6,973km), **in effect one port every 1,000 km on average**

(UK has a trading port every 65 kms)
(Gujarat every 53 kms)

- **ABBOT POINT**
- **HAY POINT**
- **GLADSTONE**

these 3 ports are constrained by tide!

…and Cape size ships cannot access Asia from these ports via the shortest route through Torres Strait.

USING THE BOLD NEW STRATEGY OF MINI PORTS……

Commercial and military vessels can use these locations indicated.

This then averages a Cape size port every 258kms. More in line with other maritime nations. Including sites on the western side of Cape York, the shorter route to Asia.

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Strategically important to control Daru from Chinese

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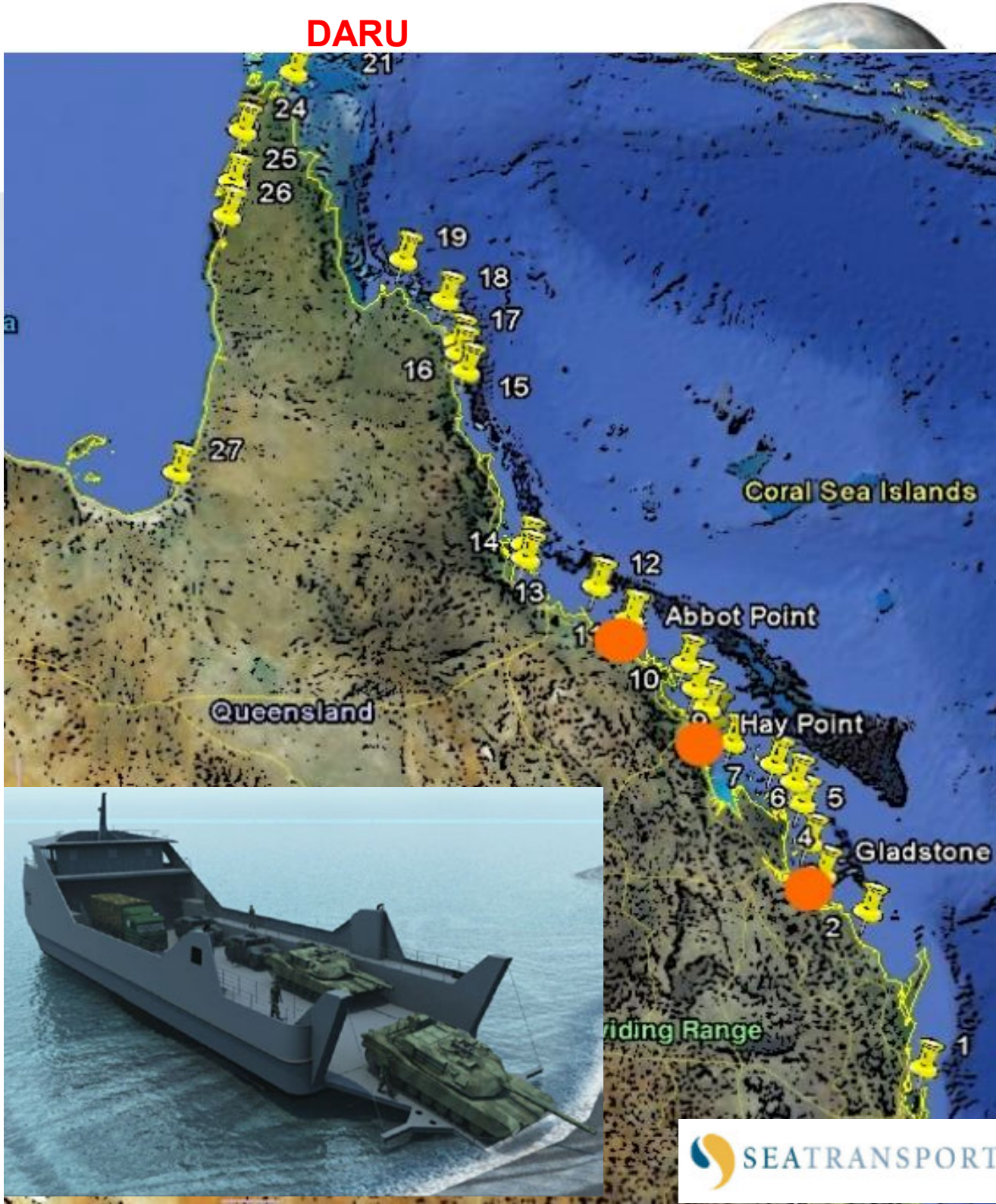

STRATEGIC IMPORTANCE OF OTSI & DARU FOR DEFENCE AND COMMERCE

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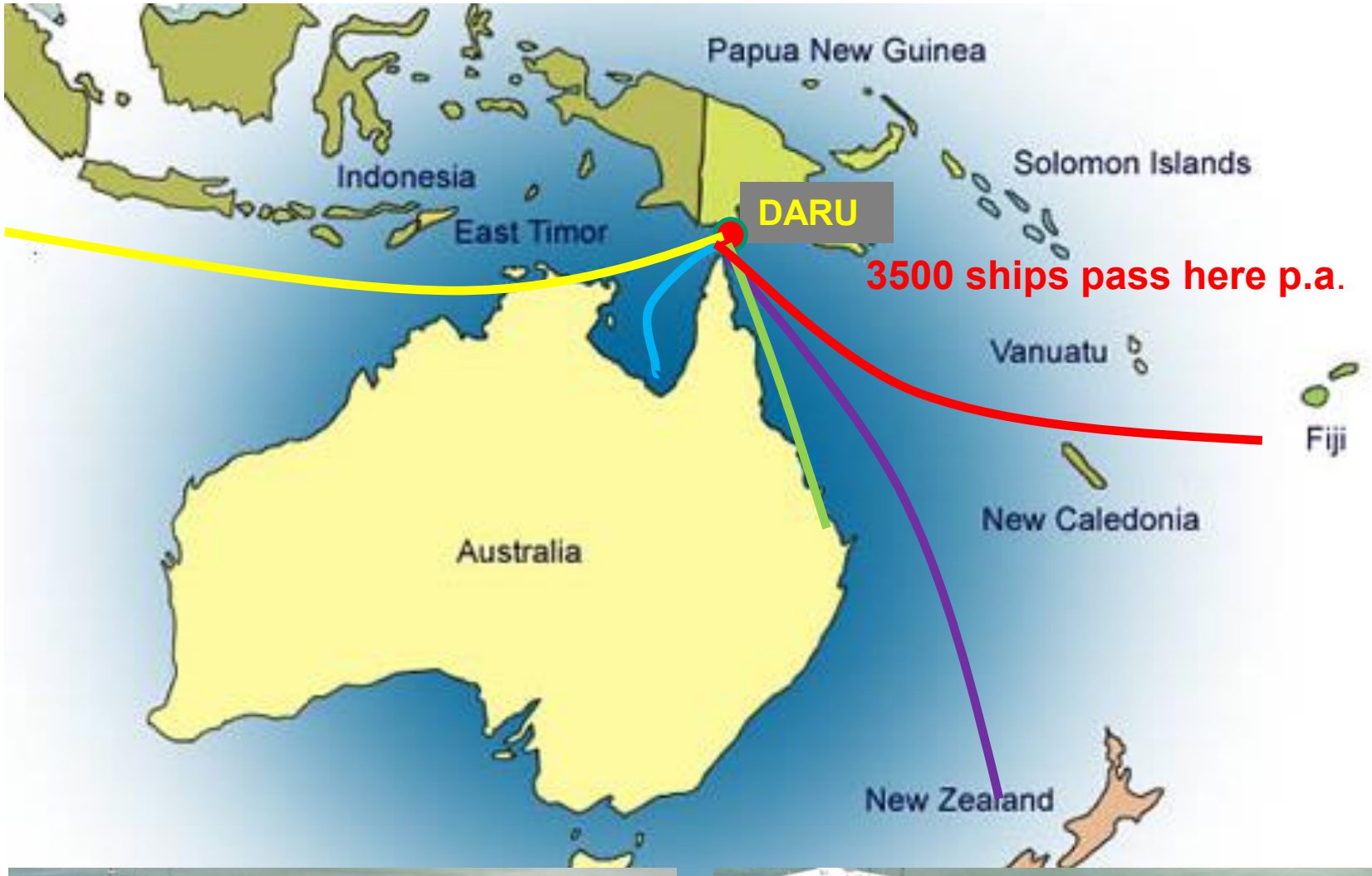

Beachable Commercial

and Military Solutions

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Coastal Shipping

"There is no industrial issue with more profound implications for Australia's role as a trading nation"

Christopher Pearson The Australian
May 26th 2007

Hindrances to Coastal Shipping - Policy makers with little knowledge

"It was evident from the beginning that one of the major problems is how little knowledge policy makers have about freight transport"

Tony Slatyer, Director BTRE

ATRE Forum Oct 2002

"I have met a series of Ministerial and Marine Transport Policy advisors over the last 35 years and their collective intelligence on waterborne transportation was frighteningly small"

Dr. Stuart Ballantyne, Director STC

Coastal Shipping Forum Nov 2015

Australian Maritime Assets

The solution for the Nation's economic restoration

"Where there is no vision, the people perish"