



Session # 5

CIL Workshop on Submarine Cables and Law of the Sea

Mr. Mick Green

Chairman - International Cable Protection Committee

Head of Subsea Centre of Excellence - BT

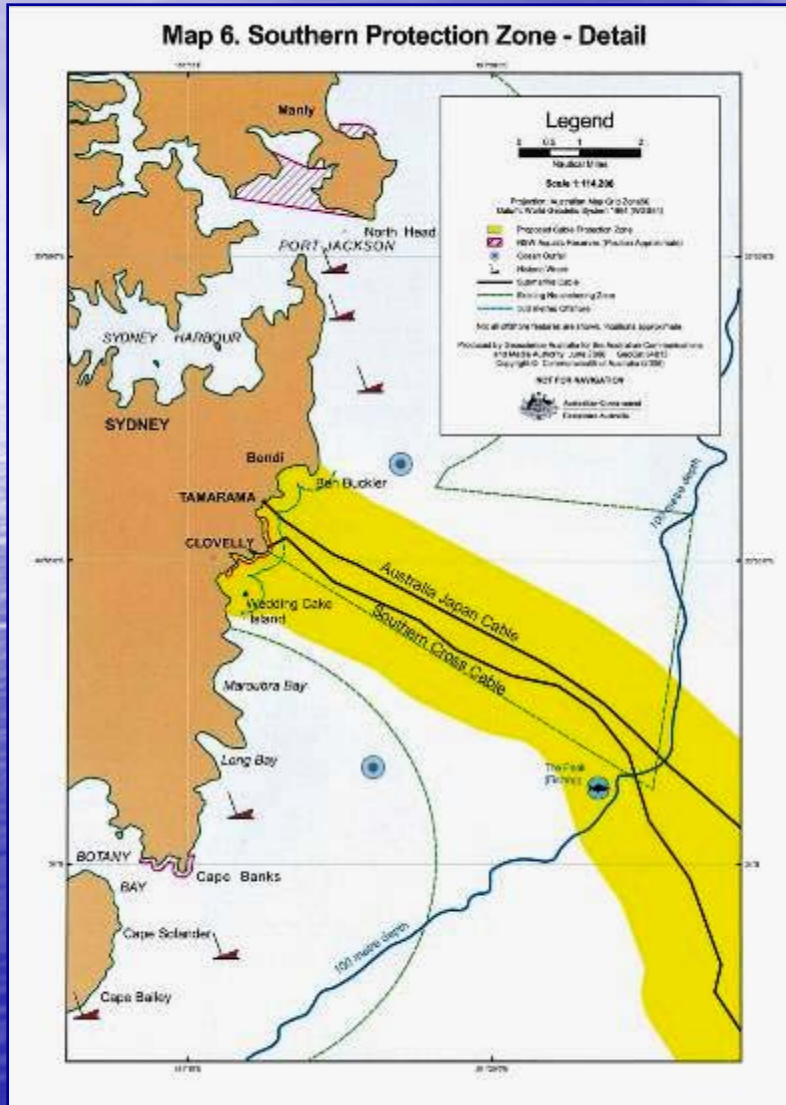
Singapore – 14-15 December 2009

Protecting Cables during Operation

Best Industry Practice

- ICPC Recommendation # 6 provides Best Industry Practice for Protection of Submarine Cables and covers
 - Dissemination of cable route information
 - Stakeholder Liaison & Education
 - Legal
 - Monitoring Security of Cable Routes

ICPC Recommendation #6 - Legal Cable Protection Zone Example

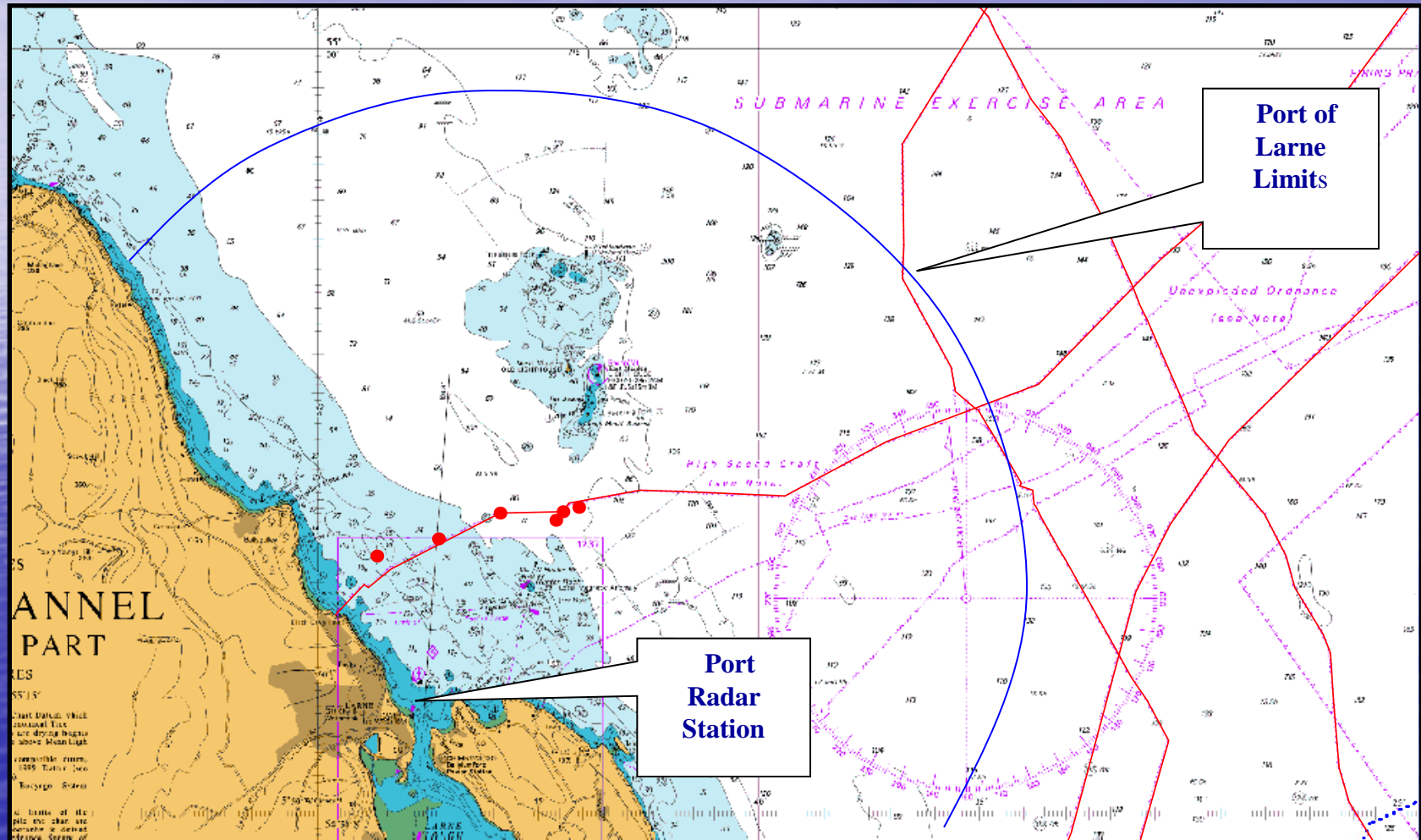


- Australian Government has recognised the strategic importance of submarine cables
- Protection zones designated for Southern Cross & Australia-Japan cable systems
- Zones are 3.7km wide & run to 2000m water depth
- High risk operations banned & low risk activities restricted
- Criminal penalties up to \$A330,000 &/or 10 years prison

ICPC Recommendation # 6

Monitoring Security of Cable Route

Port Radar Coverage – Larne



ICPC Recommendation # 6

Monitoring Security of Cable Route

Automatic Identification System (AIS)

Horizon - [Manual Chart Loading (1:1,500,000) 1123 ARCS 1:500,000 DU=Metres UNDERZOOMED]

Main Chart Nav Elements AIS Light Level Window Help

AIS Tx	AIS Rx	S57	S57 ?
Chart	Fixed Views	AIS Info	AIS ?

Remote Name	STELLA.WEGA
MMSI Number	245284000
Call Sign	PHHQ
Latitude	50° 10.0200' N
Longitude	005° 52.1900' W
COG	000.0° T
SOG	13.800 Kts
ETA to Cursor Local	21:22:21
Nav Status	Under Way Engine
Destination	BELFAST
Channel	VDL Channel A
DTE Status	N/A
Positional Accuracy	Low
Time Since Last Update	00h 00m 06s
Operating Mode	Autonomous

AIS Target	N/A
Time to CPA	N/A
Distance to CPA	N/A
Distance of CPA	N/A
CPA Latitude	N/A
CPA Longitude	N/A

AIS Target	STELLA.WEGA
Heading	001.0° T
Rate of Turn	720°/Min

AIS Targets	CPA	Type
HEINRICH G.	N/A	Cl...
KIZHI	N/A	Cl...
LARGS BAY	N/A	Cl...
LES HANDIS	N/A	Cl...
MARIA THERESA	N/A	Cl...
MARIBEL	N/A	Cl...
MELODY	N/A	Cl...
NAUSICAST	N/A	Cl...
NAOS	N/A	Cl...
PANDA	N/A	Cl...
PILOTVESSEL...	N/A	Cl...
RMS LIBAVA	N/A	Cl...
RMS VEDALI	N/A	Cl...

UTC 14:17:58 Entry TAT12 Seg F
 UTC 14:19:23 Deleted Target: ARKLOW RULER
 UTC 14:21:10 Deleted Target: NORTH POINT

Start Microsoft Excel - AIS Ala... Horizon - [Manual Ch... Sent Items - Microsoft O... Document1 - Microsoft ...

15:21

Monitoring Security of Cable Route Automatic Identification System (AIS)

- Determining cause of fault can be uncertain
- Cable operators in UK started using AIS in 2006
- AIS provided conclusive proof for faults caused by anchor and volume far greater than expected
- Also proved existence of two types of fault due to anchor:
 - ship dragging it's anchor whilst at anchor
 - ship dragging it's anchor whilst underway
- Second type most prevalent around UK
- Not limited to UK as demonstrated off Sicily

Monitoring Security of Cable Route How Governments can Help



Riding pawl

Courtesy Tyco Telecommunications

Regulations need to be implemented and enforced regarding the minimum precautions to be taken by vessels to secure anchors correctly prior to sea passage

Monitoring Security of Cable Route

BT use of AIS

- Used AIS to determine
 - 5 faults - ship dragging whilst at anchor
 - 16 faults - ship dragging whilst underway
- Used AIS to obtain compensation for 18 faults with 3 cases pending
- Working with UK Maritime Coastguard Agency but potential for more proactive role
- Used AIS to prevent 10 faults



Sharing the seabed in harmony