FAR NORTH QUEENSLAND MARINE INDUSTRIES

CAPABILITY PROFILE

December 2008
FNQ MARINE INDUSTRIES CAPABILITY PROFILE

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For the
Department of Tourism
Regional Development & Industry

Ref: J2103
December 2008

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Table of Contents

**SUMMARY OF MAIN FINDINGS**

1. **INTRODUCTION**
   1.1 Study Objectives
   1.2 Policy Background
   1.3 Study Methodology
   1.4 Areas and Sectors Covered

2. **OVERVIEW – THE LEADING MARINE ACTIVITIES REGION IN THE NORTH**
   2.1 General
   2.2 Scale, Geography, Resources and Strategic Location
   2.3 Fishing Industry
   2.4 Tourism
   2.5 Trading Vessels
   2.6 Asia Pacific Gateway
   2.7 Cargo Tonnages
   2.8 Employment in Maritime Activities
   2.9 Population, Workforce and Business Background

3. **MARINE INDUSTRIES STRUCTURE AND CAPABILITIES**
   3.1 Ports, Marinas and Landings
      3.1.1 General
      3.1.2 Cairns Seaport
      3.1.3 Weipa Seaport
      3.1.4 Mourilyan Harbour
      3.1.5 Karumba Seaport
      3.1.6 Thursday I/Horn I (Port Kennedy)
      3.1.7 Cape Flattery
      3.1.8 Small Ports
      3.1.9 Relevant Ports Outside the Region
      3.1.10 Overview of Port Capacity for Cargo
      3.1.11 Comparative Port Charges
      3.1.12 Marinas
      3.1.13 Other Small Boat Landing Facilities/Jetties
   3.2 Vessel Operations
      3.2.1 General
      3.2.2 Trading & Work Vessels
      3.2.3 Fishing Fleet
      3.2.4 Reef Tourism) Fleet
      3.2.5 Navy & Government Vessels
   3.3 Maritime Support Activities
      3.3.1 General
      3.3.2 Slipways & Ship Repair & Maintenance Facilities, Cairns
      3.3.3 Ship Building
      3.3.4 Sub Contract, Supply & Other Services
      3.3.5 Education & Training
      3.3.6 Summary of Numbers of Businesses & Organisations

4. **ECONOMIC VALUE OF THE SECTOR**
   4.1 General
   4.2 Value of Vessel Operations
      4.2.1 Fishing
      4.2.2 Trading Fleet
      4.2.3 Reef Fleet & Tourism
      4.2.4 Naval, Government & Other Vessel Operations
   4.3 Value of Maintenance, Repair & Other Support Service Operations
      4.3.1 Slipways
      4.3.2 Repair & Maintenance & Other Services
      4.3.3 Other Marine Industry Services
      4.3.4 Overview
# Contents Cont’d

## 5. Economic Trends and Other Factors Affecting the Marine Industries

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 General</td>
<td>107</td>
</tr>
<tr>
<td>5.2 Seaport Trade, Trading, Work Vessels &amp; Port Facilities</td>
<td>109</td>
</tr>
<tr>
<td>5.2.1 Existing Port Trades &amp; Trends</td>
<td>109</td>
</tr>
<tr>
<td>5.2.2 Future Port Cargo Trends</td>
<td>111</td>
</tr>
<tr>
<td>5.2.3 Container Cargo Coastal Shipping Northwards</td>
<td>112</td>
</tr>
<tr>
<td>5.2.4 Containerised Cargo Coastal Shipping Southwards</td>
<td>112</td>
</tr>
<tr>
<td>5.2.5 Containerised Cargo Overseas</td>
<td>113</td>
</tr>
<tr>
<td>5.2.6 Non-Containerised Cargo – Cairns &amp; Mourilyan</td>
<td>114</td>
</tr>
<tr>
<td>5.2.7 Other Ports</td>
<td>116</td>
</tr>
<tr>
<td>5.3 Fishing Industry</td>
<td>119</td>
</tr>
<tr>
<td>5.4 Tourism &amp; Recreational Vessels</td>
<td>120</td>
</tr>
<tr>
<td>5.5 Defence &amp; Government</td>
<td>122</td>
</tr>
<tr>
<td>5.6 Maritime Support Activities</td>
<td>123</td>
</tr>
<tr>
<td>5.6.1 Slipways</td>
<td>123</td>
</tr>
<tr>
<td>5.6.2 Services Exports</td>
<td>124</td>
</tr>
<tr>
<td>5.6.3 Education &amp; Training</td>
<td>124</td>
</tr>
</tbody>
</table>

## 6. Issues and Needs

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 General</td>
<td>125</td>
</tr>
<tr>
<td>6.2 Vessel Operations</td>
<td>125</td>
</tr>
<tr>
<td>6.2.1 Trading &amp; Work Vessels</td>
<td>125</td>
</tr>
<tr>
<td>6.2.2 Fishing</td>
<td>129</td>
</tr>
<tr>
<td>6.2.3 Reef Fleet &amp; Other Tourism Vessels</td>
<td>132</td>
</tr>
<tr>
<td>6.2.4 Navy &amp; Government Vessels</td>
<td>137</td>
</tr>
<tr>
<td>6.3 Repairs, Maintenance &amp; Other Services</td>
<td>138</td>
</tr>
<tr>
<td>6.4 Education &amp; Training</td>
<td>141</td>
</tr>
</tbody>
</table>

## 7. Analysis

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 General</td>
<td>142</td>
</tr>
<tr>
<td>7.2 Swot Analysis</td>
<td>147</td>
</tr>
</tbody>
</table>

## 8. Actions & Strategies

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 General</td>
<td>149</td>
</tr>
<tr>
<td>8.2 Seaport Development</td>
<td>149</td>
</tr>
<tr>
<td>8.3 Shipping Trade Development</td>
<td>151</td>
</tr>
<tr>
<td>8.4 Marine Tourism Development</td>
<td>152</td>
</tr>
<tr>
<td>8.5 Cairns Seaport – Seafront &amp; Land Use</td>
<td>153</td>
</tr>
<tr>
<td>8.6 Marine Education &amp; Training Hub</td>
<td>153</td>
</tr>
<tr>
<td>8.7 Regulation Difficulties</td>
<td>153</td>
</tr>
<tr>
<td>8.8 Marketing Coordination Northern Australia/SW Pacific Area</td>
<td>154</td>
</tr>
<tr>
<td>8.9 Organisational Structures</td>
<td>154</td>
</tr>
</tbody>
</table>

## Appendices

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Terms of Reference</td>
<td>156</td>
</tr>
<tr>
<td>2. Approach Letters and Questionnaires</td>
<td>162</td>
</tr>
<tr>
<td>3. List of Persons &amp; Organisations Contacted</td>
<td>169</td>
</tr>
<tr>
<td>4. References</td>
<td>175</td>
</tr>
<tr>
<td>5. Schedule of Port Charges</td>
<td>176</td>
</tr>
</tbody>
</table>
- FNQ Marine Industries Capability Profile -

Maps, Tables & Charts

<table>
<thead>
<tr>
<th>Map/Table/Chart Description</th>
<th>Pg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map #1: Far North Queensland Region Area Compared</td>
<td>24</td>
</tr>
<tr>
<td>Map #2: Cairns – Marine Services Market and Major Competitor Centres</td>
<td>26</td>
</tr>
<tr>
<td>Table #3: Number of Registered Fishing Vessels (10 metres or more)</td>
<td>25</td>
</tr>
<tr>
<td>Table #4: Number of Registered Passenger Vessels, Queensland</td>
<td>27</td>
</tr>
<tr>
<td>Table #5: Number of Registered Trading &amp; Work Vessels, Queensland</td>
<td>28</td>
</tr>
<tr>
<td>Table #6: Seaport Tonnages Loaded &amp; Unloaded, 2006/07</td>
<td>29</td>
</tr>
<tr>
<td>Table #7: Employment in Maritime Industries (by Place of Usual Residence PURP), Statistical Divisions, 2006 Census</td>
<td>30</td>
</tr>
<tr>
<td>Chart #8: Tropical Aust, Est Resident Population 2006 &amp; Growth 1996 to 2006</td>
<td>31</td>
</tr>
<tr>
<td>Chart #9: Tropical Aust – Workforce Size Total &amp; Private (non-gvt), Usual Place of Residence, 2006 Census</td>
<td>31</td>
</tr>
<tr>
<td>Chart #10: Tropical Aust – Counts of Australian Businesses, June 2007</td>
<td>32</td>
</tr>
<tr>
<td>Map #11: Tropical Aust, Air Routes Within the North &amp; Overseas, March 2008</td>
<td>32</td>
</tr>
<tr>
<td>Chart #12: Tropical Aust, Business Numbers in Finance, Insurance, Property &amp; Business Services, June 2007</td>
<td>33</td>
</tr>
<tr>
<td>Chart #13: Tropical Aust, Manufacturing Businesses, June 2007</td>
<td>33</td>
</tr>
<tr>
<td>Table #14: List of Seaports, Marinas &amp; Landings and Brief Description</td>
<td>34</td>
</tr>
<tr>
<td>Map #15: Seaports, Marinas &amp; Landings, FNQ</td>
<td>35</td>
</tr>
<tr>
<td>Map #16: Cairns Seaport</td>
<td>38</td>
</tr>
<tr>
<td>Map #17: Efficient Location of the Cairns Maritime Services Sector</td>
<td>40</td>
</tr>
<tr>
<td>Table #18: Cairns Seaport Vessel Arrivals</td>
<td>44</td>
</tr>
<tr>
<td>Table #19: Cairns Seaport Cargo Movements (Tonnes)</td>
<td>44</td>
</tr>
<tr>
<td>Chart #20: Seaport Revenue and Expenditure Per Tonne</td>
<td>45</td>
</tr>
<tr>
<td>Map #21: Weipa Seaport</td>
<td>47</td>
</tr>
<tr>
<td>Map #22: Mourilyan Seaport</td>
<td>51</td>
</tr>
<tr>
<td>Map #23: Karumba Seaport</td>
<td>55</td>
</tr>
<tr>
<td>Map #24: Port Kennedy (T.I.) Seaport</td>
<td>59</td>
</tr>
<tr>
<td>Table #25: Seaport Capacities Bulk Export Ships</td>
<td>65</td>
</tr>
<tr>
<td>Table #26: General Cargo Tonnages, Selected Regions, 2006/07</td>
<td>65</td>
</tr>
<tr>
<td>Table #27: Crane Capacities and Container Movements</td>
<td>65</td>
</tr>
<tr>
<td>Table #28: Comparative Seaport Charges, 2008</td>
<td>66</td>
</tr>
<tr>
<td>Table #29: Numbers of Vessels Registered in Far North Queensland Region</td>
<td>70</td>
</tr>
<tr>
<td>Map #30: Main Scheduled Sea Cargo Services Northern Australia, 2008</td>
<td>71</td>
</tr>
<tr>
<td>Table #31: Numbers Fishing Vessels, Cairns and Other East Coast Ports</td>
<td>76</td>
</tr>
<tr>
<td>Table #32: Disposition of Naval Vessels</td>
<td>80</td>
</tr>
<tr>
<td>Chart #33: Composition of Indicative Value of the Sector</td>
<td>100</td>
</tr>
<tr>
<td>Table #34: Summary of Repair &amp; Maintenance Operations by Sub Groupings for Cairns and for Outside of Cairns</td>
<td>104</td>
</tr>
<tr>
<td>Table #35: Other Marine Industry Services</td>
<td>105</td>
</tr>
<tr>
<td>Table #36: Local Vessel Operations Only</td>
<td>106</td>
</tr>
<tr>
<td>Table #37: Est Income from Visiting Vessels &amp; Other Sales by Marine Industry Outside the Region</td>
<td>106</td>
</tr>
<tr>
<td>Table #38: Cairns Seaport Cargo Movements (Tonnes)</td>
<td>109</td>
</tr>
<tr>
<td>Chart #39: Cargo Tonnages FNQ Seaports</td>
<td>109</td>
</tr>
<tr>
<td>Table #40 Northern Prawn Fishery Output, 2000/2001 to 2006/07</td>
<td>119</td>
</tr>
<tr>
<td>Chart #41: Trends in Reef Visitation Cairns &amp; Far Northern Section</td>
<td>120</td>
</tr>
<tr>
<td>Table #42: Recreational Vessels Reg GBRMPA Cairns &amp; Cassowary Coast Regional Councils</td>
<td>122</td>
</tr>
<tr>
<td>Table #43: Cairns Cruise Shipping Compared, 2006/07</td>
<td>133</td>
</tr>
</tbody>
</table>
SUMMARY OF MAIN FINDINGS

INTRODUCTION

The aim of this report is to provide a capability profile of the Far North Queensland region’s marine industries, including their competitive and comparative advantages, and any deficits or gaps.

Major sub sections of the sector are:

1. Ports, Marinas and Landings.
2. Vessel Operations.

Vessel Operations tend to fall into sub categories - the Trading Fleet, Fishing Fleet, Reef Fleet and Other Tourism Vessels, Naval and Other Government Vessels.

LEADING MARINE ACTIVITIES REGION IN THE NORTH

A range of factors have made the Cairns/Far North Queensland region a leading region in Queensland and the leading region across Northern Australia in marine industry activity.

The Cairns/Far North region leads Queensland’s regions in larger vessels, accounting for about:

- A third of all fishing vessels 10 meters plus.
- Over a third of passenger vessels 20 meters plus.
- Over 20% of all other commercial vessels over 20 meters.

With 455 registered vessels over 30 meters, it leads the combined Brisbane, Mooloolaba, Gold Coast total of 327.

With 24 million tonnes of cargo through the region’s seaports in 2006/07, it exceeded South Australia 22m tonnes, Townsville region 21m tonnes, Northern Territory 17m tonnes, and Tasmania 16m tonnes.

Census data indicates that, as a proportion of marine industry activity in Queensland from Gladstone north and the Northern Territory, the Cairns/Far North Queensland region accounts for 50% employment in water transport, 23% employment in ports and other services to water transport, 47% ship and boat building, 32% fishing, and almost 40% in total.

The marine sector in the region is supported by the largest regional population and workforce across northern Australia and the largest number of businesses (including financial services and manufacturing).

The marine sector is also supported by Cairns airport’s international hub role in the North Australia/South West Pacific area.
STRUCTURE AND CAPABILITIES

The Port Infrastructure

With about two-thirds of Queensland’s coastline and no point in the region more than 300km from
the sea, it is not surprising that much of Queensland’s marine activity occurs in the Cairns/Far
North Queensland region.

In common with other Queensland regions, the Far North has a need for ports for export of bulk
commodities of minerals (bauxite, silica, zinc) and primary produce (sugar and live cattle). In
common with other Queensland regions, it has a need for bulk import of fuels. As the largest
agricultural region in northern Australia, it has a particularly heavy need for importation of
fertilisers.

However, unlike the rest of Queensland’s regions, much of the Far North is not reliably
connected to the national road and rail network and there are substantial parts of the region that
need to be serviced by sea transport. Cairns is also the northern terminus of the relatively
efficient Australian east coast road and rail network. Thus, unlike the rest of Queensland, Cairns
has become the base for extensive general cargo coastal shipping services to Peninsula, Torres
Strait and Gulf ports but also Papua Indonesia, and at various times over the years, to Papua
New Guinea and the Northern Territory Gulf ports of Gove and Groote. This also leads to a need
for a network of small cargo ports and landings around the region.

The region’s strategic position is also reflected in the fact that the Australian Navy’s north eastern
operational base is located in Cairns seaport.

The region’s dominant position in the north in tourism (much of it oriented to the marine
environment), and in fishing, leads to a need for an abnormally high level of port facilities for
these types of activities not just in Cairns, but along the Far North Queensland coastline. As the
largest region in northern Australia in terms of population, there is a further need for facilities for
marine recreational activities for the local population.

Thus, it is not surprising that the region accounts for 6 of the State’s 14 seaports. This is
supplemented by about 25 points to which there are regular cargo barge services (18 in the
Torres Strait alone) and a myriad of jetties/landing points for small boats for tourism, fishing and
recreational use including 4 centres in the region’s south east with marinas.

Cairns seaport is a multipurpose seaport and one of the busiest in Australia:

- Probably the largest marine tourism port in Australia.
- One of Australia’s largest fishing industry ports.
- One of Australia’s busiest coastal shipping ports.
- A significant bulk export and import port.
- Australia’s third largest operational naval base (after Sydney and Fremantle).

Its maritime services sector is the largest and most sophisticated in northern Australia and of
substantial importance in the wider Oceania/South West Pacific area.

Its compact maritime services area is very efficiently located next to the seaport, the city’s CBD,
the city’s main industrial area, about 15 minutes from the international airport and at the northern
terminus of Australia’s east coast road and rail network.

Weipa’s seaport (apart from having facilities as a bulk export port for bauxite), also handles fuel
exports, coastal general cargo imports and has live cattle export facilities.

Mourilyan Harbour is a bulk sugar export port.
Karumba seaport has facilities to handle: bulk exports of zinc concentrate by barge (up to 5,000 dwt) to bulk carriers standing offshore, live cattle exports, extensive fishing industry activity and for shipment of fuel and stores to Mornington I and other Gulf ports.

Thursday I/Horn I (Port Kennedy) is a coastal shipping entrepot – receiving coastal shipping cargo ex Cairns and distributing it by barges to other island communities. It is also a base for various government, tourism and pilotage vessels.

Cape Flattery is a bulk export port for silica sand.

There are small ports at Red Island Point (Bamaga) (coastal cargo and tourism), Skardon River (kaolin exports), Quintell Beach (coastal cargo), as well as barge ramp ports throughout the Torres Strait Island communities.

By and large, the main ports are constrained by limited depths.

Size of vessels that can be taken are:

<table>
<thead>
<tr>
<th>Port</th>
<th>Capacity (dwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weipa</td>
<td>85,000</td>
</tr>
<tr>
<td>Cape Flattery</td>
<td>65,000</td>
</tr>
<tr>
<td>Cairns</td>
<td>50,600</td>
</tr>
<tr>
<td>Mourilyan</td>
<td>45,000</td>
</tr>
<tr>
<td>Thursday I</td>
<td>2,500</td>
</tr>
<tr>
<td>Karumba</td>
<td>5,000</td>
</tr>
</tbody>
</table>

Although Cairns is an excellent port, strategically placed for smaller coastal cargo shipping and leads Queensland regions outside of the Brisbane area in tonnage of general cargo handled, there are no on-shore crane facilities and it is limited to taking self loading vessels only. Barge loading capacity is also limited. By and large, the region depends on Brisbane for most export and import of containerised cargoes moving from and to the region. Although Townsville has excellent facilities to handle containerised export and import cargoes, it has only limited overseas services and container movements at Townsville are just higher than those at Cairns and only 2% of those handled through the port of Brisbane.

Evidence on port charges indicated that the region’s ports were broadly competitive and possibly on the low side, except for Thursday Island and Quintell Beach and possibly for fishing vessels and seafood at Cairns.

Although one of the most desired and visited cruise liner ports in Australia, channel depths restrict the larger cruise ships from entering the port and about 25% of cruise vessels now stand off the coast and ferry passengers ashore.

The Cairns region shares with the Whitsundays/Mackay area a leading role in marina development outside of the Brisbane/south east area. It has 7 marinas with a total of 880 berths (including larger berths for superyachts), with more under construction. However, the region has fallen behind the Mackay/Whitsundays’ area that had 1,230 berths at mid-2007 with more under construction.

A major organisational change in mid-2009 will see control of the ports of Mourilyan, Cape Flattery, Thursday/Horn Island, Skardon River and Karumba pass to the Cairns Ports reconstituted as FNQ Ports. However, Weipa will be administered by a Queensland Bulk Ports Corporation based in Mackay.
The Region’s Fleet of Vessels

The Cairns/Far North Queensland region has far and away the largest number of home-based vessels across northern Australia, and in Queensland, stands next to the Brisbane/Gold Coast/Sunshine Coast area.

Cairns is the major Queensland port and leading port in northern Australia for coastal trading and fishing mothership operations with 1,086 commercial (including trading and work) vessels registered.

There are four substantial cargo vessels, primarily carrying containers but also other general cargo, operating out of Cairns on scheduled services to Thursday/Horn Is, Bamaga, Weipa, Gove and Amamampare in Papua Indonesia. Three are general cargo vessels with shipboard cranes and one, a Ro/Ro landing craft. Deadweight tonnages range 3,200, 3,168, 2,768, and 2,100 tonnes, a total of 11,200 tonnes. By and large, they operate on weekly to 10-day cycles. Combined container capacity of these vessels is approximately 600 TEU’s (representing (on the basis of a 10-day cycle), a capacity of about 21,000 outward container movements a year and 42,000 total movements.

On top of this, there are at least 8 smaller landing craft on scheduled services out of Cairns to nearby islands and Lockhart River, three operating out of Horn I to Torres Strait communities, and one out of Karumba. These vessels have an estimated deadweight of about 1,700 tonnes.

In addition, there are now two vessels (three up to end November 2008) providing ‘mothership’ services to the fishing industry in East Coast, Torres Strait and Gulf fisheries with a deadweight total of about 1,800 tonnes.

Cairns based Seaswift is a significant player in Australia’s coastal shipping and competes with Darwin based Perkins Shipping to service northern ports. It also provides mother-shipping to the region’s fishing fleet. Seaswift and Cairns based Endeavour Shipping have a range of ‘work vessels’ for contract marine operations and Seaswift’s Roslyn operates on charter in South East Asia. International company Svitzer and Seaswift operate tugs in the various ports.

The region has the vessels, management and operating skills from which major expansion of activity could take place in coastal shipping to the south and shipping to nearby regions to the north as opportunities develop.

The region’s fishing fleet is the largest in the State with 394 vessels recorded as being registered. The region has a large number of companies and individuals highly experienced in fishing vessel operations. The fleet ranges from large trawlers operating in the Gulf and along the east coast, down to relatively small boats operating along the coast in the line, net and crab fisheries. Competitor vessels come into the region’s fisheries from southern centres (especially south east Queensland), and into the Northern Prawn Fishery in the Gulf area from Western Australia. However, Cairns based boats range southwards at times and northwards into Northern Territory sections of the Northern Prawn Fishery.

Cairns is the air export hub for a number of the fisheries including live fish (restaurant trade), aquarium fish, tuna and crayfish. Operations in these fisheries in Queensland tend to be managed from Cairns.

Government environmental restrictions have led to a major downsizing of the fishing fleet in recent years, but Cairns’ hub role in the industry (including its superior back up marine services sector and workforce), has seen it attracting vessels away from other centres (eg. the recent relocation of 10 Northern Prawn Fishery vessels from Darwin). Recent reductions in the Australian dollar and lower fuel costs are helping the fishing industry survive. It has a firm base of vessels, management and operational skills for survival and future re-expansion if new fishery opportunities develop.
The region’s tourism fleet is based on carrying tourists to the reef on day trips for sightseeing, diving and charter fishing. In passenger vessel operations, it leads the State, especially in vessels over 20 meters. It has a capacity to lift over 5,000 passengers a day to the reef and is a major factor in the Cairns region’s capacity to attract the second largest volume of international holiday visitors to Australia after Sydney. The fleet has the vessel capacity, management and workforce skills to quickly meet a major expansion in visitor numbers.

A significant part of the region’s tourism fleet operates from centres other than Cairns, especially Mission Beach, Deeral, Port Douglas, Cooktown, Torres Strait, Weipa and Karumba.

The region attracts substantial visits by cruise ships, superyachts and cruising yachts. Small cruising operations, superyachts and cruising yachts have based themselves in Cairns and the port has the capacity to cater for an expansion of this role.

Cairns is Queensland’s only operational naval base with 14 of the Navy’s 55 vessels based in the port. Cairns is one of the Navy’s major patrol boat bases and its operational centre for the Navy’s hydrographic survey vessels. The base has been expanded recently. Cairns competes with Darwin which has a naval refit capability for servicing navy vessels.

The region is home for a range of government vessels including those of Customs, Marine Safety Queensland, Queensland Police, and GBRMPA. Seven Pilot boats are located in the region. A number of these vessels are based at Thursday Island. Naval vessels operate regularly in the Torres Strait area where the Navy has a presence.
The Marine Industry Service Sector

Cairns has the largest size and range of marine industry support activities across northern Australia.

At the heart of the sector are the slipways/shipyards with three major facilities. To some degree, the three facilities complement one another (Tropical Reef up to 3,000 tonnes, Cairns Slipway up to 1,200 tonnes, and Norship up to 400 tonnes). However, they compete on the margin.

There are also facilities for smaller vessels in Cairns - Cairns Cruising Yacht Squadron and The Big Boat Shed, but also in the surrounding centres of Cardwell, Innisfail and Port Douglas. If anything, apart from the new travel lift at the Port Hinchinbrook Marina, the smaller regional slipways appear to have diminished (eg. those at Thursday Island and Karumba), and the work has been tending to consolidate into Cairns.

The region’s slipways are backed up by a wide ranging agglomeration of smaller firms and contractors involved in repairs and maintenance work. There is also a range of marine service operators.

A total of 230 firms and organisations were identified in Cairns as being involved in the sector and a further 40 identified outside of Cairns:

Some 85 were in repairs and maintenance type activities including slipways, engineering, electrics and electronics, sonar, air conditioning, refrigeration, hydraulics, painting and coating, and defence contractors.

A further 100 were in backup services including:

- Port services like stevedoring, shipping and customs agents, freight forwarders, container services, pilotage, towage, cold storage and transport.
- Marine surveyors, naval architects, and the education and training sector.
- Supplies and services like navigation, medical, and ships chandlery.
- Marine retailing, boat sales and brokers.
- Port administration and various government agencies.

The competitive strength of the Cairns region's marine services sector lies in:

- The scale of the region’s local fleet compared with surrounding regions.
- The investment that has taken place in essential infrastructure of slipways, travel lifts, etc., but also in sophisticated equipment and training.
- The long-term experience of the sector’s management.
- The high level of training and skills of its workforce.
- The location and compact efficiency of the sector in the immediate Cairns seaport area.
- Cairns’ strategic location as the northern terminus of Australia’s east coast road and rail network and in relation to the Pacific Island countries to the north.
- Cairns’ role as the hub international airport in north eastern Australia.

All this has given Cairns a critical mass in marine servicing that enables it to hold on to regional business, and to attract significant business from surrounding regions. This critical mass in backup servicing has been important in attracting operations to locate in Cairns such as the navy and other government vessels, trading vessels, locally based small cruise ships and superyachts.
**INDICATIVE VALUE OF THE SECTOR**

To avoid double counting, the sector’s turnover is estimated as the value of the region’s vessel operations plus the value of earnings from outside the region from visiting vessels, including from visits specifically for maintenance and repair services, from building of ships/boats for operations outside the region, and supply of marine services to outside regions.

Estimate of Local Vessel Operations’ Turnover and Employment was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Turnover</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing commercial &amp; recreational</td>
<td>$200 m</td>
<td>900</td>
</tr>
<tr>
<td>Trading &amp; other work vessels</td>
<td>$75 m</td>
<td>360</td>
</tr>
<tr>
<td>Reef fleet/Other tourism</td>
<td>$150 m</td>
<td>750</td>
</tr>
<tr>
<td>Government &amp; Pilot vessels</td>
<td>$146 m</td>
<td>960</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$571 m</strong></td>
<td><strong>2,970</strong></td>
</tr>
</tbody>
</table>

Estimate of Repair & Maintenance and other services was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Turnover</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slipways, repair &amp; maintenance</td>
<td>$105 m</td>
<td>702</td>
</tr>
<tr>
<td>Other Marine industry services</td>
<td>$122 m</td>
<td>618</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$227 m</strong></td>
<td><strong>1,320</strong></td>
</tr>
</tbody>
</table>

Total Turnover is estimated at:

<table>
<thead>
<tr>
<th></th>
<th>Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Vessel operations</td>
<td>$570 m</td>
</tr>
<tr>
<td>Part of Slipways, repairs, maintenance &amp; other services derived from outside the region</td>
<td>$100 m</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$670 m</strong></td>
</tr>
</tbody>
</table>

Employment in the sector is estimated at:

<table>
<thead>
<tr>
<th></th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Vessel operations</td>
<td>3,020</td>
</tr>
<tr>
<td>Slipways, repairs &amp; maintenance</td>
<td>700</td>
</tr>
<tr>
<td>Other Marine industry services</td>
<td>620</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,340</strong></td>
</tr>
</tbody>
</table>

We thus have the sector estimated at turning over about $700m and employing over 4,000.
ECONOMIC TRENDS & OTHER FACTORS AFFECTING THE MARINE INDUSTRIES

General
A major change in economic factors affecting the sector took place over the course of the study.

Tight competition for workforce from the mining sector, a high Australian dollar, high fuel costs and high interest rates eased over the course of the study. World shortages of shipping also eased.

A long-term trend affecting most elements of the sector has been an increase in sizes of vessels commonly being used.

Cargo Shipping
Bulk sugar exports and imports of fuel and fertilisers have tended to show a no growth in recent years and this trend seems likely to continue.

Mineral export prospects identified showed very strong growth especially in the Western Cape/Weipa area, but also potentially in the Cairns/Mourilyan seaport hinterlands, in the Cooktown area, and the Karumba port catchment area. However, at time of writing of this study, the future of a number of mining projects remained uncertain.

There is a trend for cargoes to become containerised including some mineral cargoes.

There have been steady trend increases in coastal shipping cargoes and this seems likely to continue into the future, especially related to mining areas in the Cape and possibly Papua New Guinea.

High fuel costs were leading to examination of the possibility of substituting coastal shipping of bananas to southern markets for road transport, with prospects for a range of other regional produce to follow.

Prospects were identified for a number of regional primary products and containerised mineral output to be shipped overseas with services out of Townsville, probably offering the best immediate prospects.

Other non-containerised cargo prospects for export via Cairns or Mourilyan are forest products and live cattle, and for import are cement and possibly fertilisers.

It is likely that coastal general cargo movements through the Western Cape ports will grow strongly.

Fishing Industry
The recent sharp reduction in the Australian dollar and in fuel costs have probably saved some sections of the industry from collapse.

Prospects appear to be for no growth in prawning. However, it will probably remain steady after the recent reduction. There are prospects for live fish trade to continue to expand and possibly for commercial farming of some species to occur. The same applies to tropical rock lobster. Aquarium fish exports look like growing steadily.
Tourism

Growth in reef visitation by visitors has been slow with some recent years down. This has reflected especially impacts of the high Australian dollar on the region's visitor numbers and airline capacity constraints. The reef fleet has adequate capacity to cater for a major increase in visitor numbers.

After the set back to locally based cruising by the demise of one local operator, there seems to be prospects of further vessels basing in the region.

Superyachts, cruising yachts and numbers of local recreational vessels seem likely to continue to expand over the coming years.

No major increase in naval or government fleet seems imminent.

Maritime Support Activities

The negative factors of the past few years of a high Australian dollar, tight workforce conditions, reductions in the fishing fleet, static reef fleet numbers and loss of naval shipbuilding appear to be passing.

The competitive strength of the sector has recently seen fishing vessels from outside the region base in Cairns to take advantage of its superior facilities and skilled workforce.

In the wider Asia/Pacific area, Cairns slipways compete on superior scale and quality of facilities with other centres across the north, on price with Brisbane and Auckland, and on quality of workmanship and skills with facilities in Papua New Guinea and Fiji (especially in areas requiring higher levels of skills, eg. engineering, engines, and electronics, etc.).

It competes on superior location with Philippines and Singapore. The reduction in the Australian dollar is giving it a major boost. For superyacht business, Cairns maritime support facilities compete globally.

Overall, prospects for the sector look good at this point in time.

ISSUES & NEEDS

Numerous issues and needs were raised in the course of the study.

It was not the role of this study to resolve these issues but simply to report them. The following summarises some of the major issues raised.

Cairns Seaport

The major immediate need for Cairns is a major common user barge ramp with suggestions received that it should be able to cater for barges up to 5,000 tonnes and even 10,000 tonnes. There was no clear consensus about where the facility should be.

It is an issue that Cairns seaport is restricted to self loading vessels for handling of containers and there were suggestions that more container storage space is needed in the vicinity of 7 and 8 Wharves.

It is a matter of concern that there seems to be no contingency to cater for smaller volume bulk cargo exports. Efficiency of land usage adjacent to the main 7 and 8 Wharves needs to be reviewed.

All three bulk cargoes being handled through the port (sugar, fertilisers and fuels) are currently incurring extra costs because of tidal restrictions imposed by the channel for the size of vessel currently in use. They often need to go to other ports to top up for exports or offload before visiting Cairns to deliver inbound bulk cargoes.
There is evidence that despite its key role in visiting cruise shipping in Queensland and Australia, income accruing to Cairns is extremely low compared with other centres. Some 25% of cruise ships visiting the region are standing off the coast due to channel restrictions, but would enter the port if those restrictions were removed. There would appear to be opportunities developing to base large cruise ships at Cairns. However, channel restrictions could be a problem.

Concerns have been expressed about the quality and safety of the port’s fuel handling facilities located next to the naval base.

The limitations of road and rail access to and from hinterland areas severely impinges on the efficiency of transporting cargoes from or to these areas through Cairns and Mourilyan seaports. If the region’s ports are to fulfil their potential, a major upgrading of hinterland road and rail links is necessary.

The marine services precinct is experiencing strong pressure that could reduce its size and efficiency coming from expansion of the CBD and tourism facilities, other non-marine industrial land uses, and environmental pressure for it not to expand further up Smiths Creek or across onto Admiralty I. There is need for long-term planning to ensure that the operations of the sector are not prejudiced by these pressures.

There was substantial comment received about shortage of wharf space for vessels to be worked on for maintenance and repair work other than that requiring slipping or dry storage. The possibility of expanded port common user facilities for this purpose needs to be considered.

There is a continuing need for private investment in new and expanded slipway/shipyard facilities. Two of the slipways are engaged in expansion and facilities upgrading programs and there is a need to encourage and facilitate this.

The bid by Aimtek (NQEA) to construct sections of the new Air-warfare Destroyers represents a major opportunity for the sector to regain a defence shipbuilding role. This bid needs to be supported and facilitated.

There is a need for long-term planning to meet continuing expansion of demand for marina facilities, especially in relation to the different types of vessels (eg. superyachts and cruising yachts) using the port, in relation to other marinas in the region, and in relation to the potential role of the area between the existing marina and No. 1 Wharf for marina development.

**Mourilyan**

Like Cairns, channel depth is a constraint for efficient sugar exports.

It is evident that there is a potential for Mourilyan to develop as a supplementary port to Cairns for movement of various bulk, cattle and other cargoes because of:

- Its location in relation to some of the resources (eg. forest products and minerals in the Mt Garnet/Georgetown area, and bananas for coastal shipment to the south),
- The superiority of the Palmerston Highway over the Kuranda Range Road for freight efficient road transport vehicles, and
- Less competition from other uses than occurs in Cairns.

There are issues however, of restricted channel depth, limited size of the port anchorage and adjacent portside lands available without encroaching into environmentally sensitive areas.

**Weipa**

Apart from proposals by Rio Tinto and others to upgrade port facilities in the area for export of bauxite, major needs are believed to be:

- A common users barge ramp, especially to land and take off heavy mining equipment.
- Development of a marina for local and visiting fishing, tourism, government and other vessels.
- Development of a travel lift boat yard for improved availability of maintenance and repair facilities in the Gulf area, possibly also servicing the Torres Strait.
Cooktown

Increasing use of Cooktown marine facilities is being driven by the relocation of fishing effort further north from Cairns and use of Cooktown to unload and take on stores, by increasing calls by small cruise and tourism vessels, and by increasing calls by naval and other vessels. Major need is to deepen access and to implement foreshore facility planning.

Other Port & Shipping Matters

Other port and shipping matters raised included cost penalties of transporting containers from and back to Brisbane, port land costs, some excessive towage requirements at Cairns, the need to subsidise freight costs to the Torres Strait, wharf control Weipa and Gove, need for new Reef Reporting System to be based in Cairns, and unavailability of pump out facilities in other ports.

Fishing

A major common issue throughout the sector was excessive regulation, especially without consultation and constant changes in regulation, making it impossible to invest in the industry with confidence.

Possibilities of ‘Fishermen’s Wharf’ type developments, with selling direct off boats, was raised for Cairns and Port Douglas.

Other matters raised included availability of air cargo space, cheap imports not meeting environmental standards, withdrawal of ‘mothership’ services, high charges at Cairns compared with other Australian ports, inadequate and poor fisherman’s base facilities, need for better facilities - Cardwell, Mourilyan, Innisfail, and Cooktown, wharf space Weipa, catch times and marketing, conflicts with recreational fishers, and by catch use possibilities.

Reef Fleet & Other Tourism

Issues and needs raised included impacts of oversupply of reef fleet capacity on maintenance and standards, climate change impacts, dissatisfied customers through use of inferior reef sites, inadequate port sullage facilities to meet new regulations, silting and dredging needs at Cardwell, Port Douglas and Cooktown, working visas, diving training, charter fishing licence costs, government regulation, and wet weather walkways for cruise ship vessels.

Apart from Cairns, new marina type facilities are seen as being needed at Clump Point (Mission Beach), Innisfail (being developed), Port Douglas, Thursday I and Weipa.

Repair & Maintenance

Issues and needs raised included seasonality and weather susceptibility, relationship with air services, workforce training, security access problems for tradesmen working on vessels, government regulations, visa problems for crews of foreign ships being worked on, and ship surveys.

Education & Training

There was strong support for continuing effort to upgrade maritime training through the proposed Great Barrier Reef International Marine College. Attention was drawn to a possible role in Navy Reserve personnel training.
ANALYSIS

The report provides a competitive matrix. The following sets out strengths, weaknesses, opportunities and threats.

Strengths

- Comparative size of tourism and fishing industries, and Cairns’ strategic position, leading to comparatively large local tourism, fishing, trading and government fleet.
- Hub air transport position in relation to wider North Australia/South West Pacific area and wider domestic and international services and position as northern terminus of Australia’s east coast road and rail network.
- Comparative critical mass of investment in marine industry facilities and equipment.
- Comparative range and depth of marine industries skills at management and workforce levels.
- Comparative size and skills of the region’s general workforce and business community in Northern Australia/South West Pacific context.
- Comparative attractiveness of Cairns as a place to live and work in wider North Australia/South West Pacific context.

Weaknesses

- Lack of investment in adequate port facilities in light of increasing size of vessels commonly being used in almost all sections of the marine industries.
- Lack of education and training facilities specifically oriented to the sector.
- Lack of equivalent government support for the sector compared to other competitor areas (eg. Port Moresby, Brisbane, Darwin, Perth).
- Comparatively high port charges in some fields (eg. Fishing and Thursday Island).

Opportunities

- Recent downward movement in value of Australian dollar has increased competitiveness in wider markets.
- Air-warfare Destroyer contracts offer an opportunity to re-establish defence shipbuilding.
- Expand service capability to include developing Cairns as a hub in the wider Northern Australia/South West Pacific area for marine training and education.
- Expand regional cargo shipping opportunities to cater for the expanding mineral resource sector including LNG plants and mining in Papua New guinea and mining in Western Cape area and possibly opportunities to replace road and rail transport to southern centres with coastal shipping.
- Expand ports to meet increased and diversified export opportunities in the south east of the region (Cairns and Mourilyan), in Western Cape area and possibly in Karumba and Cooktown areas.
- Establish Cairns and the region as a major hub for cruising in the Coral/Arafura/Bismark Sea areas including home ported vessels and attracting cruise ships, superyachts and cruising yachts.
- Expand the number and size of marinas in the region.
- Exploit superiority of range and quality of the marine services sector to establish a major hub role and dominance in the wider Northern Australia/South West Pacific market.
Threats

= Continuing instability and disincentive to invest in the fishing industry through constant changes in the regulatory environment, leading to potential widespread collapse of the sector.

= Failure to resolve complex land and seafront usage needs for expanded marine industry operations at Cairns seaport including:
  o Needs for expanded marina operations, cruise ship berthage and backup facilities, barge facilities, container handling space and facilities, opportunities to ship bulk cargoes, expanded slipway operations, and alongside berthage needs for repairs and maintenance operations.
  o Expanding needs for land in the harbour/Portsmith area for marine industry related operations, in the face of land use pressures from other sectors.

= Reduced world commodity prices leading to cancellation or delay of mineral resource projects in the region.

= Government supported and encouraged investment in superior slipways/ship repair facilities in competitive centres in the wider North Australia/South West Pacific area.
**Actions & Strategies**

Recommendations include actions and strategies in the following fields.

- **Seaport Development Strategy**
  - For each area:
    - South East
    - Peninsula
    - Torres Strait
    - Western Cape
    - Lower Gulf
  
  With special attention to Cairns and Mourilyan in the south east (including tidal port constraints for handling cargo and large cruise ships), to mining led opportunities in the Weipa/Western Cape area, and mining opportunities in the lower Gulf.

- **Shipping Trade Development Strategy**
  - With attention to the potential to increase coastal shipping trade northward and possibly southward and to develop expanded direct overseas services.

- **Marine Tourism Development Strategy**
  - Including a coordinated program:
    - **Marketing**
      - Continuing the Superyacht initiative.
      - Extending an initiative to Cruising Yachts.
      - Developing a Coral Sea Cruise Shipping initiative.
    - **Marine Development & Small Ships Facilities**
      - In Cairns and throughout the region.
    - **Backup Boat Maintenance Facilities**

- **Cairns Seaport – Seafront & Land Use Review**
  - To address the many complex issues identified.

- **Marine Education & Training Hub Strategy**
  - To exploit opportunities to develop Cairns as a major marine education and training hub in the South West Pacific area.

- **Addressing Regulation Difficulties**
  - To address the many issues raised in this field affecting sound investment in the sector.

- **Marketing Coordination Northern Australia/SW Pacific Area**
  - To develop support for the sector, especially its slipways and marine services, its coastal shipping and cruise shipping, to establish a greater presence of Cairns in the South West Pacific area as a Marine Operations and Marine Services hub.

- **Organisational Structures**
  - To help the sector coordinate better to address common issues and needs.
1. **INTRODUCTION**

1.1 **STUDY OBJECTIVES**

The Cairns/Far North Queensland region has long played a leading role in the provision of maritime industry operations and services in northern Australia. The sector has long been a very important part of the region’s economy.

The objective of this study has been to develop a capability profile of the marine sector in the Far North Queensland region. It seeks to determine the sector’s composition, capability and potential, particularly in terms of competitive and comparative advantages as well as identifying any deficits or gaps.

Full Terms of Reference are given as Appendix 1.

1.2 **POLICY BACKGROUND**

The Marine Industries have been chosen by the State Government as one of the key industry sectors for the Cairns/Far North Queensland region in its “Centres of Enterprise” program.

As part of a State-wide Marine Sector Action Plan, an Industry Action Plan for Cairns and Far North Queensland has been developed with three major objectives.

- Raise the domestic and international profile of the region’s marine industry to capture a greater share of the global market.
- Drive competitiveness by building industry capability and capacity.
- Ensure appropriate infrastructure and a regulated business environment to enable sustainable industry growth.

An important initiative within this context, the Queensland Superyacht Strategy (2008 – 2013), has been developed that has goals as follows:

1) Market Queensland as a premier superyacht destination, building on the State’s tourism advantages, branding, existing and future superyacht capacities and infrastructure.

2) Strengthen the Queensland superyacht industry’s capacity and capability to attract new business in areas such as manufacturing, maintenance, refit and visitation of vessels to Queensland.

3) Collaborate with industry, state, territory and federal agencies to resolve regulatory impediments for the superyacht industry.

4) Facilitate the development of world-class marine infrastructure.

Also of importance to the region’s marine industries is the Queensland Cruise Shipping Plan that identifies Cairns and the region’s key role in cruise shipping.

Of direct recent importance has been the Queensland Government’s decision to move from Ports Corporation Queensland to the former Cairns Port Authority (Cairns Ports) to be reconstituted as FNQ Ports, the administration of the region’s seaports with the exception of Weipa which is to remain under the control of a new Queensland Bulk Ports Corporation.
Other State Government policies and strategies of particular relevance to the region’s marine industries include the Adventure Tourism Strategy, the Recreational Fishing Strategy, the Tropical North Queensland Destination Management Plan, the Tourism Investment Infrastructure Plan and a review to take place of the regulatory environment governing marine infrastructure (see further details, Appendix 4).

1.3 STUDY METHODOLOGY

This study has been based on three major sources of information.

First, the study has involved extensive deskwork collection of information about the sector.

This has been supplemented by extensive surveying and original collection of information and views using questionnaires mailed to participants in the industry. Appendix 2 gives covering letter and questionnaire used for the marine services sector.

Appropriate variations were used for other sectors including tourism vessels, known locally as the “Reef Fleet”.

The questionnaires have been followed up with extensive telephoning and face-to-face interviewing with key persons in the marine industries themselves but also in industries affecting demand for marine industry services.

See Appendix 3 re lists of persons and organisations consulted in the study.

The study builds on earlier work by Cummings Economics in 2007/08 identifying the value of superyachts to the regional economy and for the Cairns Port Authority in 2004 identifying the value of the Cairns seaport to the regional economy.

In the process of the study, capability information was able to be expanded and provided:

- To assist the Royal Australian Navy in decision making about locating/servicing of vessels
- To assist local tenderers for the AirWarfare Destroyer (AWD) Project to identify benefits to the regional economy, and
- To help the banana industry carry out initial exploration of coastal shipping alternatives to road transport.

Based on the collection of information for the study, some additional work will facilitate updating Cummings Economics earlier reports on the “Value of the Cairns Seaport to the Regional Economy”.

An extensive database of contacts and addresses is being supplied separately to the Department.

1.4 AREAS AND SECTORS COVERED

The study area covers the Far North Queensland Statistical Division plus the Gulf ports and marine facilities in the North West Statistical Division, especially those at Karumba. It also covers the port of Townsville in relation to certain general cargo and other operations, especially freight services to and from Papua New Guinea and other overseas ports not available through ports in the Far North Queensland region.
Map #4 in Section 3.1 shows details of the Far North Queensland region and location of ports, marinas and landings.

By and large, the sector is broken into three sections:

1) Ports, Marinas and Landings;
2) Vessel Operations; and
3) Maritime Support Facilities.

Vessel Operations tend to fall into four groups – Trading and Work Vessels; The Fishing Fleet; The Reef Fleet and Tourism Vessels; and Naval and Government Vessels.

The study thus proved to be a large one dealing with the numerous ports, marinas and landings in the region (44 were identified), a large and diverse fleet of vessels and a substantial sector providing services to the marine industries.
2. **OVERVIEW – THE LEADING MARINE ACTIVITIES REGION IN THE NORTH**

2.1 **GENERAL**

A number of underlying factors have led to the Cairns/Far North Queensland region developing over a period of time as:

- The leading maritime activities region in northern Australia
- A very significant region for maritime activity in national terms and in the wider region including the adjacent Asia/Pacific Islands areas.

Increasingly, this leading position in maritime activity has been against a background of the region emerging as the largest in tropical Australia in terms of population, workforce and backup business services.

2.2 **SCALE, GEOGRAPHY, RESOURCES AND STRATEGIC LOCATION**

To understand the structure and layout of the marine industries and the region’s emergence as the largest for this type of activity in tropical Australia, it is first necessary to understand the scale and geography of the region.

As Map #1 illustrates, the Far North Queensland region covers an area about the size of the British Isles and 1½ times that of Victoria, and, as deep from north to south as the State of New South Wales.

Its coastline stretches about 2,400km from Cardwell up to the Torres Strait, and down and around to the Northern Territory border, a distance almost equivalent to the coastline from Brisbane around to Adelaide. The region has an east coast and a west coast. No part of the region is further than about 300 km from the sea.

Rainfall, topography, soils and various other factors lead to 86% of its population being located in the south east corner of the region.

The region’s rail network does not extend beyond the south east corner. Apart from the railway from southern metropolitan centres to Cairns, the network that exists is old and constrained.

Roads are intensively developed and sealed in the south east corner of the region as far to the north as Lakeland Downs and Cooktown, and there is a sealed road across the southern section of the region linking the south east corner with Normanton and Karumba. However, the great bulk of the north and west of the region is serviced only by unsealed roads with poor bridge structures that become impassable during the region’s strong and regular wet season.

Along the length of the region’s coast from Karumba north to Cape York and back down the east coast to Cooktown, no point can be accessed by sealed roads linked to the national sealed roads network.

In these circumstances, centres along large lengths of the coast can only be reached year-round for delivery of freight, through use of coastal shipping. The Torres Strait Island communities add to this dependence on coastal shipping.

The second major factor to appreciate about the region is the scale and value of its offshore marine resources.
Map #1

FAR NORTH QUEENSLAND
BRITISH ISLES

CAIRNS
LONDON

FAR NORTH QUEENSLAND
CALIFORNIA

CAIRNS
LOS ANGELES

FAR NORTH QUEENSLAND
VICTORIA

FAR NORTH QUEENSLAND
NEW SOUTH WALES

MELBOURNE
CAIRNS

SYDNEY
CAIRNS
The shallow waters along the east coast’s Great Barrier Reef area, the coral reef studded waters of the Torres Strait and the shallow gulf waters of the Gulf of Carpentaria are rich in high value tropical marine species that form the basis for a diversified fishing industry.

Along the east coast, the Great Barrier Reef is close to the coast and easily accessible. It is a tourist attraction of global significance and the basis for a major marine tourism sector.

To understand why Far North Queensland has emerged as the largest marine industry region in the north, it is also necessary to recognise its strategic location in relation to the developing Asia/Pacific Island nations to the near north (see Map #2).

Sea transport and marine resources play a major role in the economies of these areas. They are accessible only by sea and air from Australia. The fact they are separate nations has major implications for positioning of Australia’s naval defence and marine surveillance and security effort.

Cairns is the northern terminus of Australia’s relatively efficient east coast road, rail and major domestic air routes – a position that enhances its strategic role in relation to this wider area.

Finally, it is important to recognise that the development of marine industries is taking place against a background of, and being supported by, the Far North Queensland region’s emergence as the largest in the north in population, workforce and business services.

The following outlines the extent of the region’s leadership in northern Australia across the range of marine industry activities and more generally.

### 2.3 Fishing Industry

*The coastline from Cardwell to Cape York and around to the Northern Territory border is almost equivalent in length to the coastline from Brisbane around to Adelaide. The Cairns region has emerged as one of Australia’s major fishery regions.*

Number of fishing vessels (10 metres or more) registered by Queensland ports is as follows.

<table>
<thead>
<tr>
<th>Table #3: Number of Registered Fishing Vessels (10 metres or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Cairns</td>
</tr>
<tr>
<td>Townsville</td>
</tr>
<tr>
<td>Mooloolaba</td>
</tr>
<tr>
<td>Brisbane</td>
</tr>
<tr>
<td>Bundaberg</td>
</tr>
<tr>
<td>Gladstone</td>
</tr>
<tr>
<td>Hervey Bay</td>
</tr>
<tr>
<td>Mackay</td>
</tr>
<tr>
<td>Gold Coast</td>
</tr>
<tr>
<td>Airlie Beach</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

**Total** | **1,215** | **1,210**

*Source: Cummings Economics from Q’ld Marine Safety Authority.*

The figures illustrate how the Cairns region leads the State with 394, and the Brisbane/Gold Coast/Mooloolaba next with 323.

Census 2006 data indicates employment recorded in ‘fishing’ in the Cairns region is more than that of other northern regions (see details, Table #7, Pg 15).
- FNQ Marine Industries Capability Profile –

Map #2
Cairns – Marine Services Market and Major Competitor Centres

[Map showing Cairns' marine services market and major competitor centres in the region]
2.4 TOURISM

The Great Barrier Reef being close to the coast and easily accessible along with other natural features has made the Cairns area one of Australia’s leading marine tourism regions. Cairns is second only to Sydney in numbers of international holiday visitors.

Queensland registrations of passenger vessels carrying 12 or more passengers for 2008 were as follows. Also shown are hire and houseboats.

<table>
<thead>
<tr>
<th></th>
<th>Passenger Vessels</th>
<th>(Over 20 metres)</th>
<th>Hire &amp; houseboats</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>328</td>
<td>(148)</td>
<td>275</td>
<td>603</td>
</tr>
<tr>
<td>Brisbane</td>
<td>185</td>
<td>(58)</td>
<td>352</td>
<td>537</td>
</tr>
<tr>
<td>Airlie Beach</td>
<td>173</td>
<td>(62)</td>
<td>556</td>
<td>729</td>
</tr>
<tr>
<td>Gold Coast</td>
<td>171</td>
<td>(45)</td>
<td>654</td>
<td>825</td>
</tr>
<tr>
<td>Townsville</td>
<td>67</td>
<td>(35)</td>
<td>132</td>
<td>199</td>
</tr>
<tr>
<td>Gladstone</td>
<td>65</td>
<td>(32)</td>
<td>115</td>
<td>180</td>
</tr>
<tr>
<td>Mooloolaba</td>
<td>59</td>
<td>(12)</td>
<td>442</td>
<td>501</td>
</tr>
<tr>
<td>Hervey Bay</td>
<td>39</td>
<td>(10)</td>
<td>62</td>
<td>101</td>
</tr>
<tr>
<td>Bundaberg</td>
<td>38</td>
<td>(12)</td>
<td>82</td>
<td>120</td>
</tr>
<tr>
<td>Mackay</td>
<td>16</td>
<td>(11)</td>
<td>49</td>
<td>65</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>(-)</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,143</strong></td>
<td><strong>(425)</strong></td>
<td><strong>2,731</strong></td>
<td><strong>3,874</strong></td>
</tr>
</tbody>
</table>

Source: Cummings Economics from Q’ld Marine Safety Authority.

Cairns dominates the commercial passenger vessels at 328, although combined total of Brisbane/Gold Coast/Mooloolaba is higher at 415. The Brisbane figures include river ferries used for residential transport.

If vessels over 20 metres only are looked at, Cairns with 148 leads Brisbane/Gold Coast/Mooloolaba at 115.

Airlie Beach, Gold Coast, Mooloolaba and Brisbane however, exceed Cairns in hire and houseboats.
2.5 Trading Vessels

Much of the region to the north of Cairns is not linked by rail or even year-round access by road transport, resulting in Cairns developing as one of Australia’s leading coastal general cargo shipping ports with large numbers of vessels classed as trading registered in the port.

Other commercial vessel (trading) registrations shown in Queensland are as follows.

<table>
<thead>
<tr>
<th>Total (Over 20 metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brisbane 1,240 (390)</td>
</tr>
<tr>
<td>Gold Coast 1,094 (514)</td>
</tr>
<tr>
<td>Cairns 1,086 (590)</td>
</tr>
<tr>
<td>Mooloolaba 580 (12)</td>
</tr>
<tr>
<td>Townsville 566 (224)</td>
</tr>
<tr>
<td>Airlie Beach 419 (166)</td>
</tr>
<tr>
<td>Gladstone 409 (154)</td>
</tr>
<tr>
<td>Mackay 202 (77)</td>
</tr>
<tr>
<td>Hervey Bay 201 (92)</td>
</tr>
<tr>
<td>Bundaberg 192 (70)</td>
</tr>
<tr>
<td><strong>Total</strong> 5,989 (2,264)</td>
</tr>
</tbody>
</table>

Source: Cummings Economics from Q’ld Marine Safety Authority.

While Cairns is led by Brisbane and Gold Coast in total, Cairns leads in vessels over 20 metres.

There have been (until late 2008), 3 coastal shipping companies based at Cairns seaport - Seaswift, Endeavour Shipping and Portsmith Fuel. Darwin based Perkins Shipping is also now operating from Cairns to Weipa after previously operating from Karumba and subsequently, Townsville. Freeport Indonesia’s Java Seas operates a 10-day schedule between Cairns and their mine in Papua Indonesia.
2.6 **ASIA PACIFIC GATEWAY**

Cairns’ position at the northern terminus of the relatively efficient east coast rail and road network makes it a natural marine servicing gateway to the Pacific/Asia island areas to the north, but also a strategic location for naval defence, security and surveillance activity.

1. Cairns is Australia’s most visited port for major cruise ships outside of Sydney.
2. It attracts about 40 visits a year from super yachts and from numerous cruising yacht visits (quite a few coming to Cairns for various levels of maintenance and repair work).
3. Freeport Indonesia’s cargo vessel “Java Seas” carries cargo to Amamampare in Papua Indonesia. While not based in Cairns, it is in port on a 10-day cycle.
4. Both Australian and overseas naval vessels call regularly to Cairns, in part because of the city’s outstanding R&R attractions.

In national terms, Cairns is the home of a large fleet of smaller to medium sized vessels and has a great deal of shipping of this nature calling at the port.

Total 30 metre plus vessel numbers (all types passenger, fishing, trading) registered in Queensland are as follows.

<table>
<thead>
<tr>
<th>Over 30 metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
</tr>
<tr>
<td>Townsville</td>
</tr>
<tr>
<td>Mooloolaba</td>
</tr>
<tr>
<td>Brisbane</td>
</tr>
<tr>
<td>Gladstone</td>
</tr>
<tr>
<td>Bundaberg</td>
</tr>
<tr>
<td>Hervey Bay</td>
</tr>
<tr>
<td>Gold Coast</td>
</tr>
<tr>
<td>Mackay</td>
</tr>
<tr>
<td>Airlie Beach</td>
</tr>
</tbody>
</table>

Cairns leads by a long way with 455. Combined Brisbane/Mooloolaba/Gold Coast total 327.

2.7 **CARGO TONNAGES**

Even in cargo operations for larger ships, the Far North Queensland region (although not as large as the Mackay and Fitzroy regions) is far from being a small player in national terms.

<table>
<thead>
<tr>
<th>Table #6: Seaport Tonnages Loaded &amp; Unloaded, 2006/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Regions Compared</td>
</tr>
<tr>
<td>Mackay Region</td>
</tr>
<tr>
<td>Fitzroy Region (includes Gladstone)</td>
</tr>
<tr>
<td>Brisbane/South East Queensland</td>
</tr>
<tr>
<td>Cairns/Far North Region</td>
</tr>
<tr>
<td>South Australia</td>
</tr>
<tr>
<td>Townsville/Northern Region</td>
</tr>
<tr>
<td>Northern Territory</td>
</tr>
<tr>
<td>Tasmania</td>
</tr>
</tbody>
</table>

*Source: Cummings Economics from Bureau of Transport & Regional Economics.*
2.8 **EMPLOYMENT IN MARITIME ACTIVITIES**

Not surprisingly, all this activity has made the Cairns region well and truly the largest region in northern Australia for maritime activity.

The following Table #7 sets out employment in maritime industries recorded in the 2006 Census.

<table>
<thead>
<tr>
<th>ANZIC Code</th>
<th>Description</th>
<th>N.T.</th>
<th>Nth West</th>
<th>Cns/ FN</th>
<th>Tvl/ NTH</th>
<th>Mac/ MAC</th>
<th>Rctn/ Fitz</th>
<th>Total</th>
<th>Cairns/FN of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6300</td>
<td>Water transport</td>
<td>66</td>
<td>8</td>
<td>298</td>
<td>70</td>
<td>189</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6301</td>
<td>International sea transport</td>
<td>3</td>
<td>0</td>
<td>19</td>
<td>6</td>
<td>5</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6302</td>
<td>Coastal water transport</td>
<td>234</td>
<td>14</td>
<td>551</td>
<td>24</td>
<td>195</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6303</td>
<td>Inland water transport</td>
<td>15</td>
<td>0</td>
<td>92</td>
<td>5</td>
<td>25</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Water Transport**: 318 14 960 105 414 102 1,913 50%

| 6620       | Services to water transport undefined       | 3    | 0        | 6       | 0        | 3         | 6          |       |                   |
| 6621       | Stevedoring                                 | 40   | 0        | 5       | 112      | 9         | 55         |       |                   |
| 6623       | Port operators                              | 53   | 0        | 121     | 77       | 110       | 79         |       |                   |
| 6629       | Services to water transport n.e.c.          | 26   | 0        | 256     | 53       | 86        | 95         |       |                   |
| 6622       | Water transport terminals                    | 5    | 0        | 3       | 16       | 132       | 321        |       |                   |

**Total Services to Water Transport**: 127 0 391 258 340 556 1,672 23%

| 2821       | Shipbuilding                                | 41   | 0        | 179     | 16       | 27        | 45         |       |                   |
| 2822       | Boat building                               | 53   | 0        | 147     | 67       | 89        | 31         |       |                   |

**Total Boat/Shipbuilding**: 94 0 326 83 116 76 695 47%

| 0400       | Commercial fishing                          | 52   | 14       | 125     | 36       | 85        | 50         |       |                   |
| 0410       | Marine fishing undefined                     | 6    | 0        | 20      | 12       | 16        | 13         |       |                   |
| 0411       | Rock lobster fishing                         | 0    | 0        | 17      | 7        | 0         | 4          |       |                   |
| 0412       | Prawn fishing                               | 20   | 0        | 69      | 30       | 7         | 9          |       |                   |
| 0413       | Finfish trawling                            | 4    | 3        | 18      | 3        | 3         | 0          |       |                   |
| 0414       | Squid jigging                               | 0    | 0        | 0       | 0        | 0         | 0          |       |                   |
| 0415       | Line fishing                                | 0    | 0        | 3       | 3        | 9         | 3          |       |                   |
| 0419       | Marine fishing n.e.c.                       | 25   | 0        | 14      | 13       | 6         | 11         |       |                   |

**Total Fishing**: 107 17 266 104 126 90 710 32%

**Total Overall**: 646 39 1,943 550 996 766 4,940 39%

Source: Cummings Economics from ABS Census data.

As a proportion of total across the north, Cairns accounts for one-half of all employment in water transport, almost one-half of boat/ship building, and one-third of all fishing industry employment.

The only field it does not dominate is services to water transport. Heavy employment in stevedoring and water transport terminals (mainly the coal terminals in the Fitzroy (Gladstone) and Mackay regions) put employment in this segment in the Fitzroy region above that of the Cairns region. The Mackay region’s level is also close to the Cairns region.

Overall, about 40% of all employment in the marine industries in these northern regions occur in the Cairns region. Employment in the Northern Territory is only one-third that of the Cairns region.
2.9 **Population, Workforce and Business Background**

Recent decades have seen the Cairns region emerge as the largest in the north in population, and, by a wide margin, in business development.

![Chart #8: Tropical Australia - Est Resident Population 2006 & Growth 1996 to 2006](chart8.png)

This means that maritime services development in the Cairns area takes place against a background of the largest workforce in the north, especially non-government workforce.

![Chart #9: Tropical Australia - Workforce Size](chart9.png)

Source: ABS Data.
With a lower dependence on government employment, it is not surprising that the Cairns region stands head and shoulders above other regions of the north in number of businesses.

Cairns’ role as the dominant tourism region in northern Australia gives it superior airline connection for movement of personnel and parts across the north, within Australia and to and from overseas including nearby Papua New Guinea and Papua Indonesia.
Importantly, it also means that Cairns has a rapidly growing aviation engineering and servicing sector with cross linkages with the maritime servicing sector, especially in fields like electronics and composite materials.

All these factors come together to provide a background of the strongest availability of business services in the north to support a marine services sector, including finance, insurance and property services.

Chart #12

TROPICAL AUSTRALIA - Business Numbers in FINANCE, INSURANCE, PROPERTY & BUSINESS Services, June 2007

Although mineral processing activity gives the Townsville and Fitzroy regions the largest manufacturing employment in the north, the extent and vitality of Cairns region’s manufacturing capacity is illustrated by the fact that the region leads the north in number of manufacturing businesses.

Chart #13

TROPICAL AUSTRALIA MANUFACTURING BUSINESSES, June 2007
3. **MARINE INDUSTRIES STRUCTURE AND CAPABILITIES**

3.1 **SEAPORTS, MARINAS AND LANDINGS**

3.1.1 **General**

The study identified some 44 seaports, marinas and landings in the Far North Queensland region as follows (see Map #15).

<table>
<thead>
<tr>
<th>Regional Area</th>
<th>Port/Landing</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>South East</td>
<td>Cairns</td>
<td>The major regional seaport for export and import of cargoes for the South East of the region. Major base for the region’s tourism fleet, fishing fleet, general cargo and working vessels. One of Australia’s 4 naval operations base.</td>
</tr>
<tr>
<td></td>
<td>Cardwell</td>
<td>Small vessels marina and jetty.</td>
</tr>
<tr>
<td></td>
<td>Cape Richards</td>
<td>Barge ramp and small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Clump Point</td>
<td>Small vessels jetty.</td>
</tr>
<tr>
<td></td>
<td>Dunk I</td>
<td>Barge ramp and small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Bedarra I</td>
<td>Small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Mourilyan Harbour</td>
<td>Bulk sugar export, live cattle loading facilities, small boats jetties.</td>
</tr>
<tr>
<td></td>
<td>Johnstone River (Innisfail)</td>
<td>Jetties for small boats.</td>
</tr>
<tr>
<td></td>
<td>Deeral</td>
<td>Small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Fitzroy I</td>
<td>Small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Green I</td>
<td>Small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Yorkeys Knob</td>
<td>Small boats marina.</td>
</tr>
<tr>
<td></td>
<td>Palm Cove</td>
<td>Small boats jetty.</td>
</tr>
<tr>
<td></td>
<td>Port Douglas</td>
<td>Small boats jetties and marina.</td>
</tr>
<tr>
<td>Peninsula (east coast)</td>
<td>Archer Point</td>
<td>Former bulk grain export point, no existing sheds and facilities.</td>
</tr>
<tr>
<td></td>
<td>Cooktown</td>
<td>Small boats jetties and barge ramp.</td>
</tr>
<tr>
<td></td>
<td>Cape Flattery</td>
<td>Bulk silica sand export port.</td>
</tr>
<tr>
<td></td>
<td>Quintell Beach</td>
<td>Barge ramp for Lockhart community.</td>
</tr>
<tr>
<td>Torres Strait (NPA)</td>
<td>Thursday I &amp; Horn I</td>
<td>Wharves, barge ramps, small boats jetties.</td>
</tr>
<tr>
<td></td>
<td>Torres Strait Islands (Boigu, Saibai, Dauan, Mabuiag, St Pauls, Kubin, Badu, Hammond, Yam, Yorke, Darnley, Murray, Poruma, Warraber)</td>
<td>Barge ramps, small boats jetties at each of 14 island communities.</td>
</tr>
<tr>
<td></td>
<td>Red Island Point (Seisia/Bamaga)</td>
<td>Barge ramp, wharf for coastal trading vessels and small boats.</td>
</tr>
<tr>
<td>Peninsula (west coast)</td>
<td>Skardon River</td>
<td>Bulk export of kaolin (restricted size vessels).</td>
</tr>
<tr>
<td></td>
<td>Weipa</td>
<td>Major bulk export facilities, general cargo wharf, ramps and jetties for small boats.</td>
</tr>
<tr>
<td></td>
<td>Aurukun</td>
<td>Barge ramp.</td>
</tr>
<tr>
<td></td>
<td>Pormpuraaw</td>
<td>Barge landing point.</td>
</tr>
<tr>
<td></td>
<td>Topsy Ck (Kowanyama)</td>
<td>Barge landing point.</td>
</tr>
<tr>
<td>Lower Gulf</td>
<td>Karumba</td>
<td>Bulk zinc export facility ( barging to offshore bulk shops), wharves (including live cattle export facilities), jetties, barge ramps.</td>
</tr>
<tr>
<td></td>
<td>Burketown</td>
<td>Barge ramps.</td>
</tr>
<tr>
<td></td>
<td>Mornington I</td>
<td>Wharf for small cargo vessels and barge ramp.</td>
</tr>
</tbody>
</table>
Other ports outside the region, but of some importance to the region are:

<table>
<thead>
<tr>
<th>Port</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Townsville</td>
<td>Some mineral ores from the southern margins of the region (Herberton and Etheridge Shire areas) and occasional live cattle are exported ex Townsville. Minor exports of fishing industry output, occasionally move through Townsville port. Regular cargo to Papua New Guinea ports moves via the Consort Shipping service ex Townsville. Motor vehicles from Japan are imported via Townsville.</td>
</tr>
<tr>
<td>Brisbane</td>
<td>As a major general cargo export and import point, various cargoes from the region including fishing industry, horticultural products and mineral concentrates (eg. tin), will move via Brisbane and other southern ports.</td>
</tr>
<tr>
<td>Darwin</td>
<td>Live cattle exports from the region will, at times, be shipped via Darwin.</td>
</tr>
</tbody>
</table>

### Export Ports

The region thus has five bulk export ports, Cairns and Mourilyan for sugar, and Cape Flattery, Weipa and Karumba for minerals.

Occasional mineral ores and general cargo have been exported ex Cairns.

Three ports have been used for and have infrastructure for live cattle exports - Karumba, Mourilyan and Weipa.

### Bulk Import Ports

Cairns handles bulk imports from outside the region of fuels (out of Brisbane refineries) and fertilisers. Bulk fuel imports coming into Weipa are from Asian refineries.

### Coastal Shipping

Regular coastal shipping runs out of Cairns to Quintell Beach (Lockhart River community), Thursday/Horn I, Bamaga and Weipa, with more recent extension to Gove.

Coastal type shipping operates to service Freeport Indonesia’s copper mine in Papua Indonesia.

Barge services operate from Horn Island to the 14 Torres Strait communities.

Barge services run out of Karumba to Mornington Island and occasionally to Topsy Ck (Kowanyama), Pormpuraaw and Aurukun, and until recently, to Weipa.

### Tourism

Cairns and Port Douglas have major tourism vessel movements. There are restricted movements out of Clump Point, Deeral, Cape Tribulation, Cooktown, Thursday Island, Red Island Point (Seisia), Weipa and Karumba.

### Fishing

Cairns and Karumba are the major fishing industry ports with vessels also based at or regularly using Cardwell, Innisfail, Port Douglas, Cooktown, Thursday Island, especially Yorke Island in the Torres Strait, Red Island Point (Seisia), and Weipa.

### Naval and Government

Cairns is the location of Australia’s north eastern naval base, and naval, customs, police and immigration vessels are usually present in the Torres Strait area, especially at Thursday Island.

The following looks in detail at the capability of major ports in the region individually.
3.1.2 Cairns Seaport

Overview
Although not the largest in tonnages of cargo (see Weipa), Cairns is the most important seaport in the region. In terms of shipping and boat movements, it is one of the busiest in Australia.

Cairns is a multipurpose port. Cairns seaport is:

- Probably Australia’s largest marine tourism activity port carrying of the order of 700,000 visitors a year to the Great Barrier Reef.
- One of Australia’s largest fishing industry ports.
- One of Australia’s largest ports for coastal trading shipping activity including container and general cargo to the near north.
- A significant bulk cargo export and import port.
- Australia’s third largest operational naval base (after Sydney and Fremantle).

The maritime servicing sector associated with the seaport is the largest and most sophisticated in the north and of substantial importance in the wider Oceania/South West Pacific area.

The importance of Cairns international Airport to Cairns seaport should be noted:

- Most of the tourists who visit the reef access Cairns through the airport.
- Much of the fishing industry’s product brought through the seaport is exported overseas through the airport.
- A substantial part of fuel imports is of aviation fuels.

The following details the capability of the port.

General
Cairns seaport is situated in Trinity Inlet at the head of Trinity Bay.

It is sheltered from prevailing south east trade winds by the Murray Prior Ranges to the south east. The main coastal range forms a backdrop to the west.

Although the inlet has large areas of relatively deep anchorages, access to the port for larger vessels is provided by a 13km dredged channel through Trinity Bay. There is a dredged swing basin adjacent to the main wharves (see Map 16).

The width (90m) and depth of the channel, LAT (Lowest Astronomical Tide) 8.3m, effectively constrains the port to vessels of less than about 50,000 tonnes. The ‘swing basin’ at the main wharves can also be a constraining factor for larger cruise ships.

The city of Cairns Central Business District has grown up next to the main wharves. Wharves and marine facilities extend up the western shores of Trinity Inlet to Smith’s Ck.

The port facilities have been extended eastward out to sea in recent years through reclamation, especially to provide location for ‘reef fleet’ terminals and marinas.

Cairns’ main ‘industrial’ area is located adjacent to the wharves and marine facilities extending up Smith’s Creek. The region’s main maritime servicing sector is imbedded in this area.

This industrial/marine industries has a number of locational efficiencies. First, it is located next to the port/wharf facilities.

The north south railway from Brisbane and the Bruce Highway from Brisbane terminates in this area. There is rail and road access to the north through the city area including west to the Tablelands area.
The main business services centre of the Cairns CBD is located right next to the area to the east.

The major hub airport in north eastern Australia, the Cairns International Airport, is located just north of the city.

The port and maritime industry’s core area is thus very efficiently located to be able to draw on adjacent CBD business services and adjacent industrial services as well as being close to rail, road and air facilities (Map #17 illustrates).

The area however, experiences competition pressures from expanding demand for land from CBD business and residential services, tourism services and other industrial uses.

Environmental considerations have also acted as a constraint on seaport expansion. To the north, facilities would need to be located off from and interrupt views from the existing Esplanade area (see further discussion, Section 5 Issues and Needs).

**Organisation**

Cairns seaport operated by Queensland Government owned corporation Cairns Ports Ltd, was formerly Cairns Port Authority, and before that, Cairns Harbour Board. It is to be renamed FNQ Ports and take over jurisdiction of the other ports in Far North Queensland with the exception of Weipa from mid-2009.

Cairns Ports is governed by a board of regional residents, appointed by the shareholding Ministers (Transport and Treasury).

**Navigation and Pilotage**

The port of Cairns is a section 15 (first port of entry) facility, located at 16°55.5’S latitude and 145°47’E longitude. Deep water passage to Cairns through the Great Barrier Reef is available via the Grafton passage from the east, or the inner reef passage via the Torres Strait.

**Entrance Channel**

Access to the port is via a channel 10km west of Cape Grafton with Lowest Astronomical Tide (LAT) depth of 8.3m, width of 90m and length of 13km.

**Cairns Vessel Traffic Services (VTS)**

All vessels entering the port of Cairns are required to contact ‘Cairns VTS’ on Channel 12VHF prior to entering or exiting Cairns harbour.

**Pilotage**

Pilotage is compulsory for all internationally registered vessels over 35m and Australian registered vessels over 50m unless the Master holds a current Pilotage Exemption Certificate. Pilotage services are available 24 hours per day.

**Prevailing Winds**

The prevailing winds from March to August are south-easterlies with northerlies occurring from September to February.

**Radio Communication**

A VHF radio service is maintained by Cairns Port Authority on Channel 16 (156.8MHz) with the call sign “Cairns Marlin Marina” for marina activities and call sign “Cairns Harbour” for all other seaport activities.

**Operating Restrictions**

Cairns seaport is an all-weather port outside the cyclone season which runs from approximately November through to April. (Draft and tidal restrictions may apply.)
Map #17
Efficient Location of the Cairns Maritime Services Sector
**Tidal Information**

Tide levels as related to Cairns Port Datum which is 1.643m below Australian Height Datum are:

- Mean high water (Springs) 2.57m
- Mean low water (Springs) 0.74m
- Mean high water (Neaps) 1.88m
- Mean low water (Neaps) 1.44m
- Mean level 1.7m
- Highest astronomical tide 3.42m
- Lowest astronomical tide 0.0m

**Ship Reporting Systems**

Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS).

**Berths Wharves & Moorings**

The major port elements include wharves and barge ramps:

- Wharves and barge ramps.
- HMAS Cairns Naval Base.
- Commercial Fishing Bases 1 and 2.
- Cairns Marlin Marina.
- Pile Moorings.

The following gives details.

**Wharves & Barge Ramps**

**Wharves No. 1-6**

Wharves 1 to 6 form a continuous quay length of 595m (1,952') with a height of 4.9m (16'5") above port datum and design depth of 8.3m (27'7") LAT, unless otherwise noted. These wharves are used predominately for cruise vessels and visiting Naval vessels. The wharves are also used as overflow for tourist and fishing vessels and other coastal shipping. On Wharves 2 & 3 are heritage listed cargo sheds one of which is used as an international cruise terminal. The aprons in front of the shed are 8m and Wharves 4-6 have 27m apron width.

**Wharves No. 7-8**

General cargo, dry bulk, containers and fertiliser berth. Wharves 7 & 8 form a continuous quay length of 250m with a height of 5.0m above datum and a width of 27.8m. Design depth alongside is 9.5m LAT. The wharf has trelex fendering system which can accommodate vessels up to 40,000 tonne dead weight capacity and the distance from the outer edge of fender to waling piece is 1.35m. The cargoes using this facility include containers, bulk fertiliser and break bulk cargo. This wharf complex is complemented by easy access to the container terminal area (3,800 m²).

**Wharf No. 10**

Tanker berth for oil and LP gas with a maximum permissible vessel length of 189m (620'). The wharf has a design depth of 9.3m LAT and a wharf height of 4.8m LAT above port datum. Wharf 10 is a liquid product berth for petroleum products and petroleum gas. The wharf is also used for bunkering.

**Wharf No. 12**

Wharf 12 is owned and operated by Sugar Terminals Limited. Bulk sugar terminal and bulk molasses berth with a length of 183m (600'), wharf height of 5m (16'5") above port datum and design depth of 10.5m LAT. Width of apron is 17.6m and includes an outloading sugar conveyor system.
Smith's Creek Wharf
General cargo berth for vessels up to 65m (213'). The wharf is 53.4m (175') long and has a wharf height of 3.7m (12'2") above port datum and a design depth of 5.0m (16.5') LAT. It has 1,360m$^2$ of open storage and a 1,225m$^2$ cargo shed.

Barge Ramp
There are two barge ramps located about one nautical mile upstream in Smith’s Creek between Cairns Cruising Yacht Squadron and CFB2. Both ramps accommodate vessels up to 55m (180') in length, with a maximum beam of 13.2m (43'3") and a maximum gross tonnage of 500grt. A large barge loading facility is also located in the Duck Pond in Smith’s Creek for loading construction materials.

HMAS Cairns
HMAS Cairns has its own wharf spaces located between Wharf 10 (Fuels) and Wharf 12 (Bulk Sugar Terminal).

Commercial Fishing Bases 1 & 2
The port has two bases for fishing vessels – CFB1 and CFB2 – located in Smith's Creek. There are mooring facilities for 94 vessels 59 at CFB1, 35 at CFB2. A loading/unloading berth is located at CFB2 or alternatively, the main wharf may be used by prior arrangement with the Seaport Operations Office. Fuel is also available at CFB1 at Jetty D.

Cairns Marlin Marina
Cairns Marlin Marina provides first-class facilities and customer service for a diverse fleet including some of the world's most advanced superyachts.

The state of the art floating marina, in the heart of the cosmopolitan city of Cairns, features 214 berths accommodating a variety of cruising vessels including superyachts up to 80m. Cairns Marlin Marina is a short walk to the tropical swimming lagoon, 5-star hotels, shopping, dining, casino and the city's vibrant nightlife. The Marina is just 10 minutes from Cairns International Airport and 5 minutes from the Cairns marine and superyacht refit precinct.

The Cairns Marlin Marina features:
- Berthing up to 80 metres
- First class customer service
- Heli-pad
- Along-side vehicle parking
- ADSL and broadband wireless internet connection
- City centre location
- Tropical swimming lagoon, parklands and BBQ's
- 24-hour security and CCTV surveillance

The marina is Australia's most popular superyacht marina. It also provides first class facilities to cruising yachts and is home to Australia’s largest tourism and game fishing fleets.

Further details of berths are as follows.

The Marlin Marina consists of 214 pontoon Marina berths:
- 174 pontoon marina berths.
- 30 Reef Fleet berths.
- 10 Superyacht berths.

Marina Berths
The 174 Marina berths are located on 7 floating pontoon Marina Fingers B-H, protected by the Marlin Marina wave barrier. The berths' sizes range from 10-20 meters with all Marina berths provided with power and water.
Reef Fleet Berths
The 30 Reef Fleet berths are located on the Marlin Wharf and A Finger catering for vessels up to 50 meters in length. The facilities are purpose built to cater for large passenger flows with covered walkways and adjacent to the world class Reef Fleet Terminal.

Superyacht Berths
The 10 Superyacht berths include 7 floating pontoon berths suitable for vessels up to 60 meters and 3 berths for larger vessels. The berths are fully serviced with electricity up to 200 amps, fresh water and all modern facilities.

Pile Moorings
Cairns seaport has 65 pile moorings, for craft up to 18m (59’) in length, on the eastern side of Trinity Inlet. There are also areas designated for anchorage only north and south of the piles, east of Admiralty Island and in Smith’s Creek.

Cargo Handling
Crane & Mobile Equipment: A fixed wharf crane at No. 6 wharf that had a capacity of 25.4 tonnes has been decommissioned leaving Cairns seaport with no port cranes. Mobile handling equipment is available from stevedores or hire contractors.

Stevedoring: Northern Shipping & Stevedoring Pt Ltd has a full-time workforce.

Other Services
Cairns seaport has advanced services including:
- Water - Up to 120 tonnes/hr can be loaded.
- Electricity - Connected to all wharves.
- Bunkering - Quantities of over 30,000 litres can be supplied. A bunkering barge service is available. Fuel is available at the Marlin Marina and Commercial Fishing Base.
- Black and Grey Water – Pump out tankers available.
- Waste – Quarantine waste services available.
- Fenders – Vary from wharf to wharf. Fenders including floating fenders available.
- Towage – Tugs are available.

Seaport Charges
Seaport charges for the various ports in the region are analysed in Section 3.1.11.

Port Statistics
The following gives information on vessel arrivals and cargo tonnages.
Cairns Seaport Vessel Arrivals

Table #18: Cairns Seaport Vessel Arrivals

<table>
<thead>
<tr>
<th></th>
<th>2007/08</th>
<th>2006/07</th>
<th>2005/06</th>
<th>2004/05</th>
<th>2003/04</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRADING VESSELS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulk vessels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum</td>
<td>47</td>
<td>40</td>
<td>45</td>
<td>38</td>
<td>39</td>
</tr>
<tr>
<td>LPG</td>
<td>25</td>
<td>26</td>
<td>28</td>
<td>21</td>
<td>34</td>
</tr>
<tr>
<td>Sugar</td>
<td>12</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Fertiliser</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Molasses</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Bulk</td>
<td>98</td>
<td>84</td>
<td>96</td>
<td>86</td>
<td>101</td>
</tr>
<tr>
<td><strong>OTHER TRADING VESSELS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General cargo</td>
<td>251</td>
<td>254</td>
<td>231</td>
<td>253</td>
<td>280</td>
</tr>
<tr>
<td>Barges</td>
<td>330</td>
<td>236</td>
<td>279</td>
<td>358</td>
<td>393</td>
</tr>
<tr>
<td>Total Other Trade Vessels</td>
<td>581</td>
<td>490</td>
<td>510</td>
<td>611</td>
<td>673</td>
</tr>
<tr>
<td>Sub Total Trade</td>
<td>669</td>
<td>574</td>
<td>606</td>
<td>697</td>
<td>774</td>
</tr>
<tr>
<td><strong>CRUISE VESSELS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International cruise</td>
<td>38</td>
<td>35</td>
<td>33</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>Cairns based cruises</td>
<td>161</td>
<td>204</td>
<td>202</td>
<td>194</td>
<td>196</td>
</tr>
<tr>
<td>Sub Total Cruise</td>
<td>199</td>
<td>239</td>
<td>235</td>
<td>215</td>
<td>209</td>
</tr>
<tr>
<td><strong>OTHER VESSELS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishing</td>
<td>1,766</td>
<td>1,961</td>
<td>1,979</td>
<td>2,294</td>
<td>2,611</td>
</tr>
<tr>
<td>Navy</td>
<td>67</td>
<td>49</td>
<td>35</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Sub Total Other</td>
<td>1,833</td>
<td>2,010</td>
<td>2,014</td>
<td>2,320</td>
<td>2,639</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,799</td>
<td>2,823</td>
<td>2,855</td>
<td>3,232</td>
<td>3,622</td>
</tr>
</tbody>
</table>

Note: Approximately in excess of 10,000 scheduled ferry and tourist vessel arrivals per year.

Cairns Seaport Cargo Movements

Table #19: Cairns Seaport Cargo Movements (Tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sugar</th>
<th>Molasses</th>
<th>Petroleum Products</th>
<th>Other</th>
<th>Total Exports</th>
<th>Petroleum Products</th>
<th>Fertiliser</th>
<th>LPG</th>
<th>Other</th>
<th>Total Imports</th>
<th>Total Cargo</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/03</td>
<td>348,962</td>
<td>55,676</td>
<td>48,549</td>
<td>138,236</td>
<td>591,423</td>
<td>503,776</td>
<td>52,299</td>
<td>18,142</td>
<td>34,200</td>
<td>608,417</td>
<td>1,199,840</td>
</tr>
<tr>
<td>2003/04</td>
<td>281,158</td>
<td>56,176</td>
<td>36,984</td>
<td>138,989</td>
<td>513,307</td>
<td>542,638</td>
<td>55,100</td>
<td>17,361</td>
<td>35,876</td>
<td>650,975</td>
<td>1,164,282</td>
</tr>
<tr>
<td>2004/05</td>
<td>235,081</td>
<td>53,182</td>
<td>34,693</td>
<td>130,902</td>
<td>453,858</td>
<td>540,747</td>
<td>72,589</td>
<td>14,274</td>
<td>38,360</td>
<td>665,970</td>
<td>1,119,828</td>
</tr>
<tr>
<td>2005/06</td>
<td>241,315</td>
<td>50,883</td>
<td>34,630</td>
<td>160,713</td>
<td>487,541</td>
<td>545,392</td>
<td>42,370</td>
<td>17,146</td>
<td>40,263</td>
<td>645,171</td>
<td>1,132,712</td>
</tr>
<tr>
<td>2006/07</td>
<td>166,450</td>
<td>40,711</td>
<td>34,489</td>
<td>159,458</td>
<td>401,108</td>
<td>545,765</td>
<td>54,419</td>
<td>18,539</td>
<td>45,253</td>
<td>663,976</td>
<td>1,065,084</td>
</tr>
<tr>
<td>2007/08</td>
<td>289,123</td>
<td>44,412</td>
<td>26,439</td>
<td>180,846</td>
<td>540,820</td>
<td>546,887</td>
<td>41,354</td>
<td>18,719</td>
<td>43,964</td>
<td>650,924</td>
<td>1,191,744</td>
</tr>
</tbody>
</table>

Average Annual Growth

<table>
<thead>
<tr>
<th></th>
<th>1 Year</th>
<th>5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>73.70%</td>
<td>-3.69%</td>
</tr>
<tr>
<td>Molasses</td>
<td>9.09%</td>
<td>-4.42%</td>
</tr>
<tr>
<td>Petroleum Products</td>
<td>-23.34%</td>
<td>-11.45%</td>
</tr>
<tr>
<td>Other</td>
<td>13.41%</td>
<td>5.52%</td>
</tr>
<tr>
<td>Total Exports</td>
<td><strong>34.83%</strong></td>
<td><strong>-1.77%</strong></td>
</tr>
<tr>
<td>Petroleum Products</td>
<td>0.21%</td>
<td>1.66%</td>
</tr>
<tr>
<td>Fertiliser</td>
<td>-24.01%</td>
<td>-4.59%</td>
</tr>
<tr>
<td>LPG</td>
<td>0.97%</td>
<td>0.63%</td>
</tr>
<tr>
<td>Other</td>
<td>-2.85%</td>
<td>5.15%</td>
</tr>
<tr>
<td>Total Imports</td>
<td>-1.97%</td>
<td>1.36%</td>
</tr>
<tr>
<td>Total Cargo</td>
<td></td>
<td>-0.14%</td>
</tr>
</tbody>
</table>

Analysis of movements evident in these tables is given in Section 5.2.1 Economic Trends and Other Factors.
Seaport as a Business
Losses being made in seaport operations have turned around since 2006.

Chart #20

Seaport Revenue and Expenditure Per Tonne

- Revenue Per Tonne
- Expenditure Per Tonne
3.1.3 Weipa Seaport

**General**

Weipa seaport is operated by Ports Corporation Queensland (PCQ), but with administration planned to go to Queensland Bulk Ports in the middle of 2009.

The port is primarily a bulk export port for bauxite mined by Rio Tinto Aluminium (RTA).

However, the port also handles fuel and general cargo imports. There has been occasional export of live cattle in the past.

Rio Tinto Aluminium (RTA) operates the port facilities and has on-shore bauxite handling, processing and stock piling facilities with conveyors running to Lorim Port wharf (see Map#21).

Fuel imports are through Lorim Point and Evans Landing berths and operated for RTA by the successful tenderer on a 5-year basis. At present the RTA fuel facility is operated by BP.

Weipa is visited frequently by commercial fishing vessels and is home base for a number of charter fishing operations.

The port is situated close to the township of Weipa (population about 3,500) where there is an airport with twice daily connections to Cairns.

**General Cargo Wharf:** The Humbug Point wharf is operated for RTA by Gulf Freight Services (now Perkins Shipping) who have a cargo shed located next to the wharf. Cattle yards and loading facilities are located on the northern side of the wharf.

Weipa is a deep water port with a departure channel capable of taking vessels up to about 85,000 tonnes DWT.

**Navigation & Channels**

**Departure Channel:** A departure channel has been established with a least depth of 11.1m at LAT.

**Pilotage:** The *Transport Operations (Marine Safety) Act 1995* specifies that, unless a current Pilotage Exemption Certificate (PEC) is held by the master of a ship, pilotage is compulsory for:

- A ship that is 50m or more.
- A foreign flag ship that is 35m or more.
- A vessel towing another vessel where the combined length of the vessels is 50m or more.
- A ship whose owner or master asks for the services of a pilot.
- A ship whose master is directed by the Harbour Master to use the services of a pilot.

**Tides:** Weipa has a “Diurnal Tide Range” which refers to a tide which has a cycle of about one tide per day – one high and one low tide every 25 hours. Tide height is affected by wind direction; sustained south-easterly winds have the effect of reducing the predicted tide and north-westerly winds increasing them.

Winter tidal range is a maximum of 2m. During the wet season (Jan – April), tides in the Embley River have been recorded as high as 3.96 to 4.27m.
Map #21
Weipa Seaport
Wharves

Berth Facilities: There are four berths at the port. Details for each berth are shown in table below.

<table>
<thead>
<tr>
<th>Berth</th>
<th>Depth (at June 2007)</th>
<th>Berth Length</th>
<th>Berth Pocket (L x W)</th>
<th>Max DWT</th>
<th>Draft at LAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lorim Point East</td>
<td>12.5m</td>
<td>255m</td>
<td>255 x 50m</td>
<td>85,000</td>
<td>13.1</td>
</tr>
<tr>
<td>Lorim Point West</td>
<td>12.3m</td>
<td>255m</td>
<td>255 x 50m</td>
<td>85,000</td>
<td>13.1</td>
</tr>
<tr>
<td>Humbug Wharf</td>
<td>9.5m</td>
<td>108m</td>
<td></td>
<td>5,000</td>
<td>9.5</td>
</tr>
<tr>
<td>Evans Landing</td>
<td>9.6m</td>
<td>195m</td>
<td></td>
<td>25,000</td>
<td>9.9</td>
</tr>
</tbody>
</table>

There are also berths for tugs.

Facilities/Services

Port Control at Weipa – Vessel Traffic Service: The Port Control Centre is situated at the Harbour Master’s office. For ship traffic scheduling, pollution incidents and reporting defective navigation aids, please direct initial enquiries to the Port Control Centre. The port is controlled by the Regional Harbour Master, Cairns.

Call sign “Weipa VTS” is provided by MSQ and provides a 24 hour, 7 days a week marine operations service to the port community.

Tugs: Tug services are provided by Svitzer Australasia and tug requisitions are generally made by ships’ agents.

Most ship movements require the use of two tugs and there are four tugs based at Weipa.

Bunkering: There are no bunkering services available.

Electrical Power: Shore power connection is not available.

Fresh Water: There is fresh water available at all berths.

Fuel: Fuel is available. Contact the PCQ Port Supervisor.

Garbage Disposal: Ships should dispose of all garbage ashore using the garbage reception facilities.

Ship Loaders:
- There is one travelling/slewing shiploader on each wharf.
- Design rate maximum capacity: 6,400 tonnes/ph
- Average loading capacity: 5,000 tonnes/ph
- Length of travel: approx 200m
- Boom operating range: suited to 43m beam vessels
- Height above datum: 16.4m (+ 120)

Loaded Tonnage: Loaded tonnage is calculated on draught survey.

Line Boats: Two line boats are available and are operated by towage provider, Svitzer Australasia.
Pratique/Health Regulations: Weipa is a first port of entry and notification of quarantine inspection is required. Radio Pratique is available. Send a message to the “Quarantine Officer” through the ship’s agent, not more than 24 hours before arrival (this stipulation is not enforced). The agent will keep the vessel advised. The message is in accordance with the advised procedure in the Sailing Directors for Entry to First Australian Port.

Restrictions: Access to the wharf and loading plant is restricted. Persons requiring access, crew-members of visitors, must wear safety hard hats, safety shoes, adequate eye protection and comply with all safety regulations. RTA is not responsible for accidents incurred by personnel who use their wharf gangway.

Pedestrian access along the wharf approach is not permitted. Special authorisation is required for private vehicles and visitors within the port for wharf access. Access to the remainder of the port site is strictly forbidden.

Ship’s Chandler: The chandler will attend the vessel if necessary. Bonded stores are also available.

Shore Leave: The crew is permitted to go ashore after immigration and customs clearance. The agent can arrange a minibus service to Weipa Township and return.

Waste: There are not waste or quarantine waste facilities available; however, there are garbage disposal facilities.

Statistics
In 2007/08, the port of Weipa handled:

- Ships……………………436
- Bauxite……………………22.005 million tonnes
- Fuel……………………..73,453 tonnes
- General cargo………..32,640 tonnes

By comparison, bauxite handled in 1997/98 was just over 10 million tonnes.
3.1.4 Mourilyan Harbour

**General**

Mourilyan Harbour is currently operated by Ports Corporation Queensland (PCQ) and is expected to be transferred to the new FNQ Ports in mid-2009. It is located 17 km south of Innisfail.

Its primary role is that of a bulk export port for sugar and molasses from the South Johnstone, Tully and Babinda sugar mills. Since 1995, it has also been sporadically exporting live cattle.

A 4,400 tonne trial shipment of woodchip occurred in 2006/07 to test loading facilities.

The bulk sugar loading facility is operated by QSL under a leasing arrangement with Sugar Terminals Limited (STL).

The live cattle loading facilities were constructed by the Henry family from Sugarbag Station, west of Mt Garnet.

**Facilities**

The commercial facilities in the harbour consist of a bulk sugar and molasses terminal, with an enclosed conveyor to a shiploader and single loading berth. There are also onshore sugar and molasses handling and storage. The storage shed has a capacity to store 186,000 tonnes.

The port terminal is operated by Mourilyan Bulk Sugar Terminal, a subsidiary of QSL. There are six QSL terminals throughout the state. All are specifically designed to receive, store and out-load raw sugar to domestic and export markets. The technology installed at the terminals enable a 30,000 tome cargo ship to be loaded in less than a day.

Other facilities within the harbour include a pilot boat jetty, coast guard jetty, public jetty, boat ramp and commercial vessel mooring piles.

**Navigation**

Entry to Mourilyan Harbour is via a narrow entrance with steep hills on either side.

The harbour was developed for larger shipping by blasting out rock bars in the entrance.

The bulk sugar terminal is located on the northern side of the inlet of the Moresby River.

**Berth Facilities**

One berth which is a bulk cargo loading facility is serviced by conveyor and shiploader. The berth handles exports of sugar, molasses and live cattle.

- **Berth Length:** The berth length is 193m.
- **Nominal Depth LAT (at berth pocket):** As at April 2007, the nominal depth lowest astronomical tide (LAT) was 10.1m at berth pocket.
- **Berth Pocket (length x width):** The berth pocket is 193m x 42m.
- **Maximum Vessel Size:** The optimum maximum size vessel is 195mt length overall (LOA) and 32.0mt beam. Any vessels over this size may be able to enter the harbour at the discretion and determination of the Regional Harbour Master.
Map #22
Mourilyan Seaport
Restrictions:
- The ballast condition should have the propeller fully immersed with maximum trim 2.5m by the stern with a forward draft not less than 2% of LOA.
- There are no restrictions on time and berthing is at the discretion of the Harbour Master with regards to weather conditions.
- Engines must not be immobilised while alongside.
- Unberthing is in accordance with the state of tide and draft. Under keel clearance required is 10% if draft is 10m or more. If under 10m, under keel clearance is 0.9m.

 Depths of Water
When approaching, the depth of water is 9.6m below datum. The depth of water at sugar berth is 10.1m below datum.

Facilities
Tugs: Tug services are provided by Svitzer Australia. The tug which services Mourilyan has twin screw steering nozzles with 33 tonnes bollard pull from the head and 22.9 tonnes from stern. No lines are used at Mourilyan.

Bunkering: There are no bunkering services available.

Electrical Power: There is no shore power connection available.

Emergency Services: Queensland Fire and Rescue Service is the response agency for any fire within the port, both land and marine fires. Response will initially be out of Mourilyan, with back-up from Innisfail. Due to the small size of the port, there are no dedicated fire fighting personnel in the port.

Fresh Water: There is freshwater available from the wharf.

Fuel: Facilities for fuel are not available at Mourilyan.

Gangway/Deck Watchmen: The ship's gangway is used and the ship's crew are used as watchmen.

Garbage Disposal: The garbage and waste facilities currently provided in the port to bulk ships is limited to general garbage (which excludes quarantine waste). This service is provided to ships by an independent waste contractor on a 'user-pays' basis.

Ship Loader: Details include:
- Type: Travelling gantry with luffing boom.
- Design rate maximum capacity: 2,300 tph
- Average loading capacity: 1,800 tph
- Length of travel: 143.3mt
- Boom operating range: +15.0 degrees to -7.5 degrees
- Maximum outreach from fender line: 13.50mt
- Height above datum: 16.39mt above LAT
- Height below datum: 26.49mt to bottom of berth
- Travel speed: 50m/min not variable.

Line Boats: There are no line boats available at Mourilyan. The pilot boat runs stern lines.

Pratique/Health Regulations: Mourilyan is a first port of entry and notification of quarantine inspection is required. Quarantine approval to berth is available. Send quarantine message through to the ship’s agent, not less than 72 hours before arrival and an agent will keep the vessel advised. The message is in accordance with the advised procedure in the Sailing Directors for Entry to First Australian Port.
Restrictions: Access to wharf and loading plant is restricted. Persons requiring access, crew-members or visitors, must wear safety hard hats, safety shoes, adequate eye protection and comply with all safety regulations. Mourilyan Bulk Sugar Terminal and PCQ are not responsible for accidents incurred by personnel who use their wharf gangway.

Pedestrian access along the wharf approach is not permitted. Special authorisation is required for private vehicles and visitors within the port for wharf access. Access to the remainder of the port site is strictly forbidden.

Ship’s Chandler: The chandler will attend the vessel if necessary and bonded stores are also available.

Shore Leave: The crew is not permitted to go ashore except for medical requirements.

Statistics
The following gives statistics for 2007/08.

- Ships visited: 27
- Sugar exports: 470,224 tonnes
- Molasses exports: 55,263 tonnes
- Woodchip: Nil
- Livestock: 5,326 head

Tonnages of sugar through the port fluctuated depending on crop sizes.
3.1.5 Karumba Seaport

**General**
Karumba seaport is located in the mouth of the Norman River as it enters the Gulf of Carpentaria. It is the only point in the Queensland section on the Gulf of Carpentaria where a sealed road reaches the shores of the Gulf.

It is currently operated by Ports Corporation Queensland (PCQ) but is proposed to be transferred to the new FNQ Ports based in Cairns in mid-2009.

It was a landing point in early flying boat services from Australia to the United Kingdom and a lodge was constructed there.

When the extensive prawn resources of the southern Gulf were identified in the 1960’s, Karumba became a major base for a rapidly growing industry with wharves and processing plants constructed, and a sealed road constructed to Normanton 75 km away. Karumba is now much less important as a base for the fishing industry that has changed its patterns to export of unprocessed bulk pack product delivered from boats operating at sea to ‘mother ships’ primarily out of Cairns who supply fuel and other stores at sea.

However, other fisheries have developed in the area.

In the early 1990’s, it became a general cargo transhipment point for goods destined for Weipa. Freight was transported to Karumba from Brisbane and Cairns by road and then transported by barge to Weipa. This trade ceased recently in favour of shipment ex Townsville, subsequently shifted to being ex Cairns. However, barge services remain to Mornington Island.

In the 1980’s/1990’s, live cattle trade to Indonesia expanded but reduced to much lower levels after the Asian crisis in 1998.

In 1999, Century Zinc/Zinifex (now OZ Minerals) commenced zinc exports via a pipeline to a dewatering plant at Karumba.

In recent years, Karumba has developed as a tourism recreation centre, especially oriented to recreation fishing.

The township of about 600 is right next to the port facilities.

There is an unsealed airstrip on frontal sand dunes just north of Karumba Point.

**Navigation**
As a port, Karumba is limited by the shallow waters of the lower Gulf.

Zinc shipments are loaded onto 5,000 tonne barges which tranship to larger vessels lying offshore. Berths and channel are dredged.

**Depths of Water:** The depth of approaches are 3.7 below datum.

**Tides:** Karumba has a “Diurnal Tide Range” which refers to a tide which has a cycle of about one tide per day – one high and one low tide every 25 hours. There is an extreme range during spring tides of up to 4.7m. Prolonged periods of off-shore winds may also influence the tidal level greatly, with drops in level of up to one meter being recorded.
Map #23
Karumba Seaport
Facilities

General: Oz Minerals’ commercial facilities at the port include a dewatering and transport operation. Zinc concentrates are transported to the port via a 304 kilometre underground slurry pipeline. Once dewatered, the mineral concentrate is transported via a transfer vessel, the MV Wunma, to export ships anchored in a designated area 45 kilometres offshore in the Gulf of Carpentaria.

Other facilities in the port provide for general cargo, fuel and fisheries’ products. Most of the port facilities such as wharves and storage facilities are privately owned and are not on PCQ land, so they are not under the direct control of PCQ.

A Raptis and Wren have wharves and cold stores to receive fishery products - one mainly prawns and the other fish, largely to handle product from their own boats. Carpentaria Fuels have a wharf and limited storage facilities.

At Karumba, Oz Minerals is the largest operator at the port and is responsible for the operation of the largest export facility.

Terminal operations can be broken into the following components:
- Processing plant and stockpiling facilities.
- Conveyor system for loading MV Wunma at the Norman River wharf.
- Ship loading plant within MV Wunma being a purpose built covered transfer vessel.
- Deep water self-discharging of MV Wunma onto export vessels.

There are a number of other facilities in the port which are privately owned and operated.

Berth Facilities: There are a number of berth facilities in the port, most of which are privately owned and operated. Contact the berth operator or ship’s agent for specific details on lengths, maximum vessel size and any restrictions for each berth.

<table>
<thead>
<tr>
<th>Berth</th>
<th>Actual Depth (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gulf Freight Services Wharf</td>
<td>6.2</td>
</tr>
<tr>
<td>Gulf Freight Services Ramp/Wharf</td>
<td>4.6</td>
</tr>
<tr>
<td>Karumba Cold Stores Wharf</td>
<td>6.2</td>
</tr>
<tr>
<td>Karumba Livestock Loading Wharf</td>
<td>5.4 (Note: Currently no livestock is exported from this wharf)</td>
</tr>
<tr>
<td>Mobil/Trinity Wharf</td>
<td>6.3</td>
</tr>
<tr>
<td>Pasminco Export Wharf</td>
<td>4.2</td>
</tr>
<tr>
<td>Raptis Wharf</td>
<td>5.3</td>
</tr>
<tr>
<td>Ruby Marine Wharf</td>
<td>5.3</td>
</tr>
<tr>
<td>Seawift/Shell Wharf</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Figures are taken from MSQ ‘Notice to Mariners’ for the Port of Karumba.

Tugs: There are no tugs required at the port.

Bunkering: There are no bunkering services available at the port.

Electrical Power: Check with the ship’s agent to confirm availability of shore power at the specific wharf ship is berthing at.

Fresh Water: Check with the ship’s agent to confirm availability of water at the specific wharf ship is berthing at.

Fuel: Check with ship’s agent to confirm.
Garbage Disposal: There are no garbage disposal services available.

Line Boats: There are no line boats available at Karumba.

Pratique/Health Regulations: Karumba is a first port of entry and notification of quarantine inspection is required. Radio Pratique is available. Send message to the “Quarantine Officer” through the ship’s agent, not more than 24 hours before arrival. (This stipulation is not enforced). The agent will keep the vessel advised. Text of the message is in accordance with the advised procedure in the Sailing Directors for Entry to First Australian Port.

Restrictions: Access to any wharf and/or loading plant is restricted. Persons requiring access, crew-members or visitors, must wear safety hard hats, safety shoes, adequate eye protection and comply with all safety regulations. The berth operator is not responsible for accidents incurred by personnel who use their wharf gangway.

Ship’s Chandler: The chandler will attend vessel if necessary and bonded stores are also available. See port service providers for contact details.

Shore Leave: The crew is permitted to go ashore after immigration and customs clearance.

Waste: There are no waste services available at Karumba.

Statistics
Tonnages through the port rose strongly from 1998/99 to peak at 1.3 million tonnes in 2005/06, and remain high at 0.9 million tonnes in 2006/07 and 1.1 million tonnes in 2007/08 being Zinc 997,477 tonnes, Lead 58,747 tonnes, and General Cargo 10,272 tonnes.

Karumba has continued to export live cattle with the number exported in 2007/08 being 12,659 head.

A total of 64 ships visited the port in 2007/08.
3.1.6 Thursday I/Horn I (Port Kennedy)

**General**

Port Kennedy (Thursday I/Horn I) is currently operated by Ports Corporation Queensland (PCQ) but is proposed to be transferred to the new FNQ Ports in mid-2009.

Port Kennedy has a long history as an important port of passage on the route through the Torres Strait from Australia to Singapore and India including being, over time, a coal bunkering port and subsequently fuel bunkering. Major international shipping passes through the channel to the north and does not use the port facilities.

The port has played a long role in defence and security which continues today in the form of customs and fisheries patrols based at Thursday Island and regular visits by naval patrol boats.

The role of the port is now mainly as a local cargo entrepot for the Torres Strait, receiving cargo in from Cairns and redistributing it to the various island communities. It also plays a role as a base for the region’s marine industries including recreational fishing and diving charters, reception and transport of commercial fisheries product (especially crayfish), inter-community private boat and ferry movements including to and from the Northern Peninsula Area, and as a marine industries sales, repair and maintenance centre.

It should be noted however, that much of the activity of the commercial fishing industry in the strait (especially prawning) is supported by ‘mother ships’ direct out of Cairns, transporting fuel and stores in and product out.

Traditionally, the port was located along the foreshore of the commercial and administrative centre of Thursday Island. However, Horn Island, which has a less constrained land use situation, has recently been an increasing location for cargo operations, for ferry operations for passengers from and to the airport located on Horn Island, and for an increasing residential population.

Thursday Island is an important base for Torres Strait pilotage service from which pilots are transferred to and from shipping passing through the Strait.

A feature of the port is the very strong tidal movements.

**Tides**

Tides can vary up to 3m, while currents can exceed 8 knots through Normanby Sound. Strong, complex tides and currents that are poorly understood potentially make the Strait a hazardous place for shipping.

**Facilities**

**General:** PCQ facilities on Thursday Island include:

- Multi-user facilities at the main wharf for general cargo.
- Engineer’s wharf for ferry passengers.
- Multi-user fuel wharf used for refuelling of small craft.

On Horn Island, PCQ facilities include the Cargo Facility and Passenger Facility. PCQ also owns a major fuel storage facility on Horn Island, which is leased and operated by a local company.
Map #24
Port Kennedy (T.I.) Seaport
Berth Facilities: Due to draught restrictions, there are limits on the size of vessels which can use the berthing facilities at Thursday Island.

- Hovell Bar: 3.2m
- Main Wharf: 3.1m (4.3 alongside wharf)
- Caltex Wharf: 3.0m
- Engineers Wharf: 4.3m
- Horn I Passage: 4.8m
- Inner Harbour: 4.9m

Tugs: There are no tug services at the port.

Bunkering: Bunkering services are available through two local operators – Seawift and Endeavour Shipping (Perrott Salvage) (recently sold to Seawift).

Electrical Power: Shore power connection of 240 volts is available.

Fresh Water: Fresh water is available.

Fuel: Fuel is available from the Horn I Cargo Facility and the Main Wharf on Thursday I.

Garbage Disposal: Garbage disposal is available for small quantities, however 12 hours notice is required. There are facilities to receive quarantine waste or garbage.

Pratique/Health Regulations: Thursday Island is a first port of entry and notification of quarantine inspection is required for vessels arriving from overseas.

Restrictions: Access to Thursday Island's main wharf and loading area is restricted while loading and unloading cargo occurs. Persons requiring access, crew-members or visitors, must wear safety hard hats, safety shoes and comply with all safety regulations. PCQ is not responsible for accidents incurred by personnel who use these facilities.

Waste: There are no waste services available.

Statistics
Cargo trade through the port fluctuates between 70,000 and 90,000 tonnes, but has shown a gently rising trend. Tonnage in 2007/08 was 77,875 tonnes.
3.1.7 Cape Flattery

**General**
The port of Cape Flattery is currently under the control of Ports Corporation Queensland (PCQ) but is due to be transferred to the new FNQ Ports in mid-2009.

The port of Cape Flattery operates primarily for the export of silica sand from the Cape Flattery silica mine. The mine site on Cape York covers a lease of around 6,500 hectares and has an estimated resource of over 500 million tonnes of silica sand.

Cape Flattery Silica Mines Pty Ltd, a wholly owned subsidiary of Mitsubishi Corporation, operates the single port terminal and is the leading producer of world class silica sand for the glass, foundry and chemical industries.

Terminal operation can be broken into the following components:
- Onshore silica sand handling and stockpile.
- Outloading to the off-shore berth.
- Shiploading.

There is a general-purpose wharf for the mine and for the mooring of line boats that assist in ship berthing.

**Facilities**

**General:** The port comprises on-shore silica sand handling and stockpile facilities and a 500m single trestle jetty and conveyor running from the mine to an off-shore berth and shiploader. Loading berth capacity is 80,000 deadweight tonnage (dwt).

There is also a general purpose wharf for the import of fuel and other supplies for the mine and for the mooring of two line boats which assist in ship berthing.

Pilotage services are provided by Maritime Safety Queensland (MSQ).

**Berth Facilities:** There is one berth which is a bulk silica sand loading facility serviced by conveyor and shiploader.

**Berth pocket (length x width):** There are no berth pockets defined.

**Nominal Depth LAT (at berth pocket):** Nominal depth lowest astronomical tide (LAT) at berth pocket is 14.1m (as at October 2001).


**Restrictions:** Restrictions include:
- Ballast condition should have the propeller fully immersed with maximum trim 2.5m by the stern with a forward draft not less than 2% of length overall (LOA).
- There are no restrictions on time, and berthing is at the discretion of the Regional Harbour Master with regards to weather conditions.
- Engines must not be immobilized while alongside.
- Unberthing is in accordance with the state of tide and draft.

**Depths of Water:** Depth at Mooring Dolphin #1 is 26m.

**Tugs:** None are stationed at Cape Flattery.

**Bunkering:** Bunkering services are not available.

**Electrical Power:** Shore power connection is not available.
Fresh Water: There is no fresh water available from the wharf as there are no facilities.

Fuel: There are no facilities available for fuel at Cape Flattery.

Gangway/Deck Watchmen: The ship's gangway is used and the ship's crew is used as watchmen.

Line Boats: Line boats are available.

Restrictions: Access to wharf and loading plant is restricted. Persons requiring access, crew-members or visitors, must wear safety hard hats, safety shoes, adequate eye protection and comply with all safety regulations. Cape Flattery Silica Mines Pty Ltd is not responsible for accidents incurred by personnel who use their wharf gangway.

Pedestrian access along the wharf approach is not permitted. Special authorisation is required for private vehicles and visitors within the port for wharf access. Access to the remainder of the port site is strictly forbidden.

Ship's Chandler: The chandler will attend the vessel if necessary.

Shore Leave: The crew is not permitted to go ashore at Cape Flattery.

Waste: There are no waste or garbage disposal services available.

Statistics
Tonnages have been fluctuating between 1.3 and 1.8 million tonnes per annum. In 2007/08, Cape Flattery handled 34 ships carrying 1.735 million tonnes of silica sand.

3.1.8 Small Ports
Red Island Point (Seisia)
There is a wharf at Red Island Point/Seisia that serves the Northern Peninsula Area (NPA) communities of Bamaga, Seisia, Umagico and Injinoo.

Regular weekly Seaswift services ex Cairns proceed on to Red Island Point after calling at Thursday I/Horn I, and discharge cargo before returning to Cairns. These ships also offer a service of returning vehicles to Cairns for tourists who have driven to Cape York or vice versa.

The wharf facilities are also used by fishing/cruising charter vessels that offer tours into the Torres Strait area.

Skardon River
Port Musgrave/Skardon River was declared as a port in February 2002 with Ports Corporation Queensland as the port authority.

The port is located approximately 100km north of Weipa and is owned by Skardon River Kaolin, a subsidiary of Minerals Corporation Ltd. The current owners bought the mine from Australian Kaolin after it went into liquidation and have upgraded and commissioned the plant.

The port facilities are located upstream on the Skardon River. The river is shallow and very limited and is used to ship out kaolin by barge and to bring in supplies. PCQ is working with the mine owners to determine the most cost effective solution to transport the product. Recent export shipments are believed to have been carried by Endeavour Shipping’s “Pacific Explorer” barge.

It was identified that Carpentaria Contracting of Weipa (through arrangements with the Commonwealth Government), have established facilities at Skardon River for the destruction of seized foreign fishing vessels (a facility that was previously being considered for location at Horn Island).
Quintell Beach
Quintell Beach serves the Lockhart River community on the east coast of Cape York Peninsula. It is a barge ramp located at the end of a breakwater that handled 4,000 tonnes of cargo in 2006/07 and 4,681 tonnes in 2007/08. Seaswift operate regular services to the port from Cairns.

The port receives its income from the trade over the barge ramp. The introduction of a road transport service to the area has meant a general reduction in the volume of cargo, but the area is not accessible by road for four to five months of the year.

3.1.9 Relevant Ports Outside the Region
The following outlines relevant facilities at ports outside the Far North Queensland region of particular significance to the region.

Townsville Seaport
Townsville seaport acts as a major bulk and general cargo port and as a live cattle export port.

It has more extensive storage areas and facilities than Cairns seaport for export of bulk products including fertiliser, mineral ores and concentrates and timber products.

Like Cairns it has facilities for import of fuels and fertilisers.

It has parallel facilities for export of sugar and molasses to those at Cairns, Mourilyan and Lucinda. It has facilities for export of live cattle.

Mineral processing in the Townsville area of copper, zinc and nickel have an output for export of ingots and other refined products in containers that attract regular calls by general cargo vessels. The services can also be available for export and import of other containerised cargo including meat products.

The port is equipped with two portainer cranes capable of handling respectively 25 tonnes and 55 tonnes (standard lift 40 tonnes).

The port facilities are used to import motor vehicles from overseas.

The stevedoring company based in Townsville (Northern Stevedoring Services) also provides stevedoring services for the port of Cairns.

Townsville port is used for import/export of cargoes from Papua New Guinea via the Consort Shipping (PNG) service to Port Moresby and Lae.

Although Perkins Shipping based their vessel there recently to run services to Weipa to replace those out of Karumba, this service was subsequently shifted to base in Cairns. Although Townsville receives substantial calls by vessels based overseas, it has very little shipping based there.

Although there are tourism and fishing vessels based in Townsville, numbers are much smaller than Cairns.

Defence presence in the seaport is limited to an army small ships unit.

While tonnages through Townsville seaport are larger than Cairns, the presence of marine industries and employment is much lower and back-up services and facilities like slipways smaller.
**Port of Brisbane Seaport**

Facilities at Brisbane seaport, especially more regular calls by general cargo container ships to a wider variety of markets, can provide an opportunity to access export markets for some of the Far North’s industries, including for mining, horticultural products and fishing industry products. Much of the region’s cattle output is transported south to feedlots and fattening areas that in turn provide meat for export via Brisbane.

Slipways and other marine service industries provide the main competition to Cairns in this field.

**Darwin Seaport**

The port has been subject of major new initiatives over recent years driven by an emerging offshore oil and gas industry and bulk mineral exports from the Northern Territory and South Australia mines.

Integral to Darwin seaport’s development is the Austral Asia Railway from Adelaide, the continued development of East Arm Wharf and the redevelopment of City Port.

The Land Development Corporation and the Northern Territory Government are assessing the options for East Arm Wharf by calling for Registrations of Interest by 27 February 2009 for prime waterfront industrial land as part of Stage 2 of the East Arm Marine Services precinct.

Darwin Business Park (strategically located close to East Arm Port and the rail freight terminal), plans to release a further 11 lots in 2008/09 ranging in size from 1.04 to 1.9ha. Development leases are convertible to freehold. $200 million worth of development has been committed to the Darwin Business Park including the $55 million VOPAK fuel terminal.

The Common User Area (CUA) is a 20ha site close to East Arm Port which is being promoted as an area for:

- Marine services and maintenance.
- Engineering, fabrication and assembly of a range of building, equipment and modules for the resources sector.
- Mining support, services and maintenance.
- Defence support activities.
- Oil and gas support services.

Preliminary planning has commenced on the proposed gas based industrial estate of Middle Arm Peninsula. Large parcels of land will be developed to meet development requirements.

Darwin seaport is of some significance to the Far North Queensland region.

Live cattle exports through Darwin can be drawn from the southern parts of the Far North Queensland region.

At times, Darwin slipways/facilities can complete with Cairns slipways/facilities.

The Northern Territory Government has regularly sought to induce Freeport Indonesia to transfer its Australian buying base and transhipment business to Darwin.

Darwin based coastal shipping can compete with Cairns based shipping to service ports in the Gulf area.

**Port Moresby Seaport**

Port Moresby seaport is of no major significance to the region, except for some competition in slipway, repairs and maintenance services.
3.1.10 Overview of Port Capacity for Cargo

Current capacity of the region’s major ports for bulk exports of cargoes in terms of maximum size vessels is as follows compared with elsewhere in Queensland.

<table>
<thead>
<tr>
<th>Port</th>
<th>Capacity (dwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns / FNQ</td>
<td></td>
</tr>
<tr>
<td>Weipa</td>
<td>85,000</td>
</tr>
<tr>
<td>Cape Flattery</td>
<td>65,000</td>
</tr>
<tr>
<td>Cairns</td>
<td>50,600</td>
</tr>
<tr>
<td>Mourilyan</td>
<td>45,000</td>
</tr>
<tr>
<td>Thursday I</td>
<td>2,500</td>
</tr>
<tr>
<td>Karumba</td>
<td>5,000</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Gladstone</td>
<td>231,800</td>
</tr>
<tr>
<td>Hay Point</td>
<td>230,000</td>
</tr>
<tr>
<td>Abbott Point</td>
<td>200,000</td>
</tr>
<tr>
<td>Brisbane</td>
<td>127,000</td>
</tr>
<tr>
<td>Townsville</td>
<td>85,100</td>
</tr>
<tr>
<td>Mackay</td>
<td>68,000</td>
</tr>
<tr>
<td>Lucinda</td>
<td>50,000</td>
</tr>
<tr>
<td>Bundaberg</td>
<td>36,700</td>
</tr>
<tr>
<td>NT</td>
<td></td>
</tr>
<tr>
<td>Darwin</td>
<td>100,000</td>
</tr>
</tbody>
</table>

(1) **Note**: These are approximate tonnages which can vary with ship configuration.

By and large, development of the region’s ports in terms of ability to handle large vessels for bulk cargo shipments is limited. Brisbane seaport dominates general cargo trade in the State.

General cargo tonnages by region other than SEQ for 2006/07 was:

<table>
<thead>
<tr>
<th>Region</th>
<th>Tonnages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns and Far Northern Ports</td>
<td>333,463 tonnes</td>
</tr>
<tr>
<td>Townsville Northern Ports</td>
<td>261,623 tonnes</td>
</tr>
<tr>
<td>Mackay Region Ports</td>
<td>15,029 tonnes</td>
</tr>
<tr>
<td>Central Queensland Region Ports</td>
<td>101,186 tonnes</td>
</tr>
</tbody>
</table>

The Cairns/Far North Queensland ports lead the State in general cargo tonnages handled outside of the Brisbane/South East Queensland region.

The following table compares crane capacities at Cairns, Other Queensland and Darwin seaports and container movements.

<table>
<thead>
<tr>
<th>Seaport</th>
<th>Port Crane Capacity</th>
<th>TEU Movements 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>None (1)</td>
<td>18,263</td>
</tr>
<tr>
<td>Townsville</td>
<td>2 portainer cranes respectively 25 tonnes and 55 tonnes (40 tonnes standard lift),</td>
<td>19,773</td>
</tr>
<tr>
<td></td>
<td>1 ore unloading crane.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 slewing luffing crane (30 tonnes).</td>
<td></td>
</tr>
<tr>
<td>Gladstone</td>
<td>No fixed crane.</td>
<td>2,351</td>
</tr>
<tr>
<td></td>
<td>Mobile crane available.</td>
<td></td>
</tr>
<tr>
<td>Rockhampton</td>
<td>Fixed leg 25 tonnes</td>
<td>945</td>
</tr>
<tr>
<td>Mackay</td>
<td>None</td>
<td>Not recorded.</td>
</tr>
<tr>
<td>Darwin</td>
<td>1 rail mounted portainer crane with heavy lifting capacity of 70 tonnes at 10m outreach and 40 tonnes at 30m outreach. The facility has future capacity for the provision of additional quay cranes. 1 dry bulk materials shiploader designed to load panamax class vessels.</td>
<td></td>
</tr>
</tbody>
</table>

(1) **Note**: The 25.4t crane on Wharf 6 has been decommissioned and will not be brought back into operation.

Cairns seaport is thus effectively constrained to handling self loading vessels.
3.1.11 Comparative Port Charges

Appendix 3 gives comparative port charges for Cairns, Weipa and Mourilyan with Darwin, Brisbane and Townsville.

The following gives some key comparisons.

<table>
<thead>
<tr>
<th>Container Type</th>
<th>Port</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns (other than seafood) TEU</td>
<td>$68.70</td>
<td></td>
</tr>
<tr>
<td>Townsville TEU</td>
<td>$55.81</td>
<td></td>
</tr>
<tr>
<td>Brisbane 20ft</td>
<td>$46.20</td>
<td></td>
</tr>
<tr>
<td>Brisbane 40ft</td>
<td>$92.40</td>
<td></td>
</tr>
<tr>
<td>Darwin Import TEU 20ft</td>
<td>$123.85</td>
<td></td>
</tr>
<tr>
<td>Darwin Export TEU 20ft</td>
<td>$90.07</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Container (Empty)</th>
<th>Port</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>$10.80</td>
<td></td>
</tr>
<tr>
<td>Townsville</td>
<td>$11.14</td>
<td></td>
</tr>
<tr>
<td>Brisbane</td>
<td>$5.72</td>
<td></td>
</tr>
<tr>
<td>Darwin</td>
<td>$17.13</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Animals ($ per head)</th>
<th>Port</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>$1.66</td>
<td></td>
</tr>
<tr>
<td>Weipa</td>
<td>$0.99</td>
<td></td>
</tr>
<tr>
<td>Mourilyan</td>
<td>$1.2353</td>
<td></td>
</tr>
<tr>
<td>Darwin cattle etc</td>
<td>$1.71</td>
<td></td>
</tr>
<tr>
<td>Darwin sheep, goats</td>
<td>$0.4326</td>
<td></td>
</tr>
<tr>
<td>Brisbane</td>
<td>$0.396</td>
<td></td>
</tr>
<tr>
<td>Townsville cattle</td>
<td>$1.73</td>
<td></td>
</tr>
<tr>
<td>Townsville sheep</td>
<td>$0.15</td>
<td></td>
</tr>
<tr>
<td>Karumba cattle</td>
<td>$2.359</td>
<td></td>
</tr>
<tr>
<td>Karumba sheep</td>
<td>$0.793</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fertiliser Imports (per tonne)</th>
<th>Port</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>$2.98</td>
<td></td>
</tr>
<tr>
<td>Townsville</td>
<td>$3.43</td>
<td></td>
</tr>
<tr>
<td>Darwin</td>
<td>not specified</td>
<td></td>
</tr>
<tr>
<td>Brisbane</td>
<td>$1.65 $1.32</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Petroleum Based Projects Import</th>
<th>Port</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>$3.86 $/m3</td>
<td></td>
</tr>
<tr>
<td>Darwin</td>
<td>$8.45 $/kl</td>
<td></td>
</tr>
<tr>
<td>Brisbane (refined oil)</td>
<td>$1.925</td>
<td></td>
</tr>
<tr>
<td>Townsville</td>
<td>$4.94 $/tonne</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raw Sugar Export</th>
<th>Port</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>$2.63 $/tonne</td>
<td></td>
</tr>
<tr>
<td>Mourilyan</td>
<td>$2.0735 $/tonne</td>
<td></td>
</tr>
<tr>
<td>Townsville</td>
<td>$2.81 $/tonne</td>
<td></td>
</tr>
</tbody>
</table>

Source: Cummings Economics from Seaport Websites.

The general indication is that charges at Cairns and other regional ports are not very different to those at other Queensland ports and may in fact, be on the low side.

An exception is Thursday I and Quintell Beach where the general charge of $21.098 and $14.33 per tonne respectively compares with other goods’ charges - Cairns import $3.45/export $2.80, Darwin $4.85, Mourilyan $1.2573, Brisbane $3.663 and Townsville $3.48.
Suggestions were received that charges on the fishing industry for berthage and on seafood products were relatively high. However, fishing vessels themselves as opposed to ‘motherships’ can unload without charges.

Comparative berthage fees are as follows for:

<table>
<thead>
<tr>
<th>Raw Sugar Export:</th>
<th>1st 24 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darwin</td>
<td>11.24 c per GRT</td>
</tr>
<tr>
<td>Cairns 1000 – 7500 GRT</td>
<td>19.78 c per GRT</td>
</tr>
<tr>
<td>Townsville exceeding 182.9 meters</td>
<td>26.0924 c per GRT</td>
</tr>
</tbody>
</table>

Again, Cairns’ rates appear to be broadly competitive.

3.1.12 **Marinas**

There are four main marinas in the region and the smaller ones.

The following gives details:

**Port Hinchinbrook Marina (Cardwell)**

The marina has been developed as part of the Port Hinchinbrook residential and resort development.

It currently has 180 berths with capacity to lift this to 250.

Berth sizes are 10 – 35 meters. New breakwaters ensure entry all weather and all tides.

Depth is limited and not enough for superyachts.

Fuel pontoon is available.

Associated facilities are:

- Restaurant and bar.
- Swimming pool and tennis courts.
- Overnight cabins, apartments.

Norship Marine have established a maintenance/refit facility with a 80 tonne travel lift at Cardwell.

**Marlin Marina (Cairns)** (see also Section 3.1.2 Cairns Seaport)

Cairns Marlin Marina is a state of the art floating marina right on the foreshore of the Cairns CBD.

It has 214 berths that will accommodate a variety of cruising vessels including superyachts up to 80 meters.

Features include:

- Berthing up to 80 meters - Floating pontoon berths.
  - Freshwater and electricity (3-phase in some berths).
- Heli-pad.
- Vehicle parking.
- ADSL and broadband wireless internet connection.
- City centre location.
- Adjacent to tropical swimming lagoon, parklands and BBQ’s.
- 24-hour security and CCTV surveillance.

**Innisfail Marina**

Subloos have a small floating marina in the Johnstone River of 14 berths.
**Half Moon Bay Marina (Yorkeys Knob just north of Cairns)**
197 berths with 9 being 20m and over and an additional 2 special berths including home port berths for superyacht Eendracht and Mystique.
Fuel – Gatehouse Security, 3-phase power.

**Bluewater Marina**
108 berths servicing both mono and multi-hulled vessels and berth lengths of 12m, 15m and 18m.
Deepwater ocean access.
3-phase power available from 18m berths.
24hr security CCTV, cameras and on-site manager.
Water and electricity available at each berth.

**Meridian Marina (Port Douglas)**
112 berths ranging from 12 to 45 meters.
Fuel facilities.
Secure gated berthing, 3-phase power.

**Closehaven Marina (Port Douglas)**
38 berths ranging from 14 to 25 meters.
Fishing boats and Recreation.

**Port Douglas Fuels**
5 berths up to 17 meters.

**Sea Haven (Innisfail)**
Metricon has commenced construction of a 56 berth marina and residential and commercial complex. Plans have also been submitted for a larger marina development opposite Sea Haven.

**Overview of Marina Capacity**
Current marina capacity in the region is summarised as follows.

<table>
<thead>
<tr>
<th>Marina</th>
<th>Berths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>214</td>
</tr>
<tr>
<td>Port Hinchinbrook</td>
<td>180</td>
</tr>
<tr>
<td>Innisfail Subloos</td>
<td>14</td>
</tr>
<tr>
<td>Half Moon Bay (Yorkeys Knob)</td>
<td>197</td>
</tr>
<tr>
<td>Bluewater</td>
<td>108</td>
</tr>
<tr>
<td>Cairns Cruising Yacht Squadron</td>
<td>12</td>
</tr>
<tr>
<td>Port Douglas</td>
<td>155</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>880</strong></td>
</tr>
</tbody>
</table>

This compares with capacity in the Whitsundays/Mackay region of 1,231 as at mid-2007 with more under construction.

Cairns seaport has a large capacity to moor cruising yachts on piles on the eastern side of the inlet.
3.1.13 Other Small Boat Landing Facilities/Jetties

Cardwell:
Apart from the marina at Cardwell, there is a jetty with limited depth at low tide. Cape Richards tourist resort has a landing.

Mission Beach:
There is a jetty at Clump Point that is used especially by Quick Cat Cruises’ ferry service to Dunk Island and trips to the reef, and Calypso Adventures who run diving, snorkelling and sightseeing tours to the reef. There are jetties/landings at Dunk and Bedarra Islands.

Innisfail:
The Johnstone River at Innisfail is used as a base for fishing and recreation vessels with a number of jetties and moorings available and two small slipways, one of which is on the market. Bars across the mouth of the river severely restrict entry at low tide.

A jetty at Deeral on the lower reaches of the Mulgrave River is used as a landing for the daily Franklin Islands’ cruises.

Cairns:
There are jetties at Green and Fitzroy Islands mainly serving ferries carrying day visitors.

The jetty at Palm Cove serves as a loading and discharge point for visitors on reef trips.

There are two boat ramps in Cairns, and one each at Yorkey’s Knob, Barron River and Palm Cove.

Port Douglas:
Apart from the marina at Port Douglas, there are a number of jetties and landings and a small slipway. Apart from tourism recreation craft, the facilities are also used by fishing vessels.

Cooktown:
There is a wharf at Cooktown that is used by commercial fishing vessels, recreation fishing charters, recreational vessels, navy vessels, visiting cruising yachts and tenders from cruise ships bringing visitors ashore.
3.2 **VESSEL OPERATIONS**

### 3.2.1 General

As Section 2 identifies, the Far North Queensland region has the largest fleet of small ships and boats based and operating in the region in northern Australia, and one of the largest fleets in Australia.

The following table gives numbers of registered vessels by broad category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing</td>
<td>394</td>
</tr>
<tr>
<td>Passenger</td>
<td>603</td>
</tr>
<tr>
<td>Other commercial including trading</td>
<td>1,086</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,083</strong></td>
</tr>
</tbody>
</table>

(Note: Not included in this list are the vessels operating from HMAS Cairns.)

At 2,083 registrations, it exceeds Brisbane 1,895, Gold Coast 1,979 and Mooloolaba 1,228.

The following provides further details of the various types of vessels operating in the region and their capability.

### 3.2.2 Trading & Work Vessels

This class of vessel tends to fall into the following categories.

1. Cargo Vessels on Scheduled Freight Services.
2. Fishing Industry ‘Motherships’.
3. Cargo Vessels on Contracted Tasks.
4. Tugs and Other Work Vessels.

#### 1. Cargo Vessels on Scheduled Freight Services

Cairns is the leading port for coastal shipping services in northern Australia including vessels on scheduled cargo services to nearby ports to the near north in Papua New Guinea and Papua Indonesia.

Map #30 illustrates the relevant shipping routes.

**Seacorp (Fremantle):**
- Services ex Fremantle to Darwin and other ports in the Pilbara/Kimberleys area.

**Perkins Shipping (Darwin):**
- Ex Darwin to Dili and other South East Asian ports.
- Ex Darwin to Gove and Groote I and other NT community ports.
- Ex Cairns to Weipa and Gove.

**Seaswift (Cairns):**
- Ex Cairns to Torres Strait and Weipa
- Ex Cairns to Cape Flattery, Green, Lizard, Dunk Island and others.

**Freeport Indonesia**
- Ex Cairns to Amamampare in Papua Indonesia on a 10-day cycle.

**Consort Shipping (Lae):**
- Ex Lae and Port Moresby to Townsville.

The following gives details of ships operating services from Far Northern ports.
Trading Vessels

**Ex Cairns**

*“Seaswift”*

1) Trinity Bay
- General cargo: 1 x 30 tonne crane
- Length: 81m
- Draft: 5.74m
- Deadweight: 3,200 tonnes
- GRT: 1,594 tonnes
- Container capacity: 125 TEU’s

Operating weekly services Cairns to Thursday/Horn Is, Bamaga and Weipa.

2) Newcastle Bay
- General cargo: 2 x 30 tonne cranes
- Length: 83.2m
- Draft: 5.39m
- Deadweight: 2,768 tonnes
- GRT: 1,964 tonnes
- Container capacity: 125 TEU’s

Operating services Cairns to Torres Strait and Weipa.

3) Temple Bay – Landing Craft
- Length: 22.06m
- Draft: 1.29m
- Deadweight: 50 tonnes
- GRT: 37 tonnes

Especially to Lockhart.

4) Trojan – Landing Craft
- Length: 38.0m
- Draft: 2.14m
- Deadweight: 320 tonnes
- GRT: 343 tonnes

Operating Lizard/Green/Dunk Is.

*“Perkins Shipping”*

5) Francis Bay – Ro/Ro Landing Craft
- Length: 79.9m
- Draft: 4.27m
- Deadweight: 2,100 tonnes
- GRT: 1,551 tonnes
- Container capacity: 80 TEU’s

Operating weekly services Cairns to Weipa and Gove.

*“Freeport Indonesia”*

6) Java Seas
- General cargo: 2 cranes
- Length: 91.0m
- Draft: 4.971m
- Deadweight: 3,168 tonnes
- Container capacity: 256 TEU’s

Operating Cairns to Amamampare, Papua Indonesia, on a 10-day cycle.
Ex Thursday I

“Seaswift”

7) Malu Titan – Landing Craft
   Length 49.85m
   Draft 2.19m
   Deadweight 545 tonnes
   GRT 347 tonnes

8) Malu Warrior – Landing Craft
   Length 36.23m
   Draft 1.94m
   Deadweight 230 tonnes
   GRT 250 tonnes

9) Malu Chief – Landing Craft
   Length 42.0m
   Draft 1.9m
   Deadweight 270 tonnes
   GRT 290 tonnes

10) Wadjemup – Landing Craft
    Length 42.85m
    Draft 1.7m
    Deadweight 161 tonnes
    GRT 214 tonnes

Ex Karumba

11) A 25m barge (operated by Carpentaria Fuels of Karumba), operates ex Karumba to Mornington Island to service that community.

2. Fishing Industry ‘Motherships’

Ex Cairns

“Seaswift”

12) Kestrel Bay – Fishing vessel ‘Mothership’ (Gulf)
    Length 55.55m
    Draft 4.6m
    Deadweight 1,208 tonnes
    GRT 851 tonnes

13) Emu Bay – Fishing vessel ‘Mothership’ (East Coast)
    Length 40.14m
    Draft 3.0m
    Deadweight 600 tonnes
    GRT 347 tonnes

Portsmith Fuel has run a mothership to the Torres Strait with a dumb barge standing off Yorke Island for many years, but advised at end November 2008, that the service was being withdrawn.
3. Cargo Vessels on Contracted Tasks

The following is a non-exhaustive list of local cargo vessels on contract work and tugs.

“Seaswift”

Cargo

Malu Intruder – Landing Craft
Length    32.5m
Draft     1.5m
Deadweight 160 tonnes
GRT      190 tonnes

Malu Raider – Landing Craft
Length    31.5m
Draft     2.0m
Deadweight 320 tonnes
GRT      263 tonnes

Roslyn Bay
General cargo 1 x 30 tonne crane
Length     81m
Draft      5.74m
Deadweight 3,200 tonnes
GRT       1,594 tonnes
Container capacity 125 TEU’s

On charter in South East Asia area.

4. Tugs and Other Work Vessels

“Seaswift”

Cossack – Tug single screw
Length    15.24m
Bollard Pull 5 tonnes

Arjuna II – Tug twins screw
Length     23m
Bollard Pull 10 tonnes

Adonis – Tug single screw
Length     21.30m
Bollard Pull 11 tonnes

Carcinos – Dumb barge
Length     52.67m
GRT        729 tonnes

“Endeavour Shipping”

Endeavour Shipping recently sold their cargo vessels to Seaswift. What will happen with these vessels is not known but Endeavour Shipping/Perrott Salvage indicated they retained 11 tugs and barges for logistical work.

“Svitzer”

The international Svitzer Group have 4 tugs and 2 line launchers stationed at Weipa, 2 tugs at Cairns, 2 tugs at Mourilyan Harbour, and 2 tugs and 2 line boats at Townsville.

Live Cattle Exports

Livestock carriers of the Seaswift group “Molunat” (gross 1370t and dwt 996t) and “Norvantes” (gross 125t and dwt 1405t) have traditionally carried livestock from Karumba to Asian markets. The port is restricted to vessels under 95 meters.
3.2.3 Fishing Fleet

Commonwealth Fisheries

There are three Commonwealth controlled fisheries that relate to the region.

- Coral Sea Fishery – from Sandy Cape (Frazer I) north to east of Cape York.
- Torres Strait Fishery.
- Northern Prawn Fishery – west of Cape York.

In 2006, some 77 vessels operated in the Northern Prawn Fishery. The numbers are now believed to be down to about 50 among 19 owners.

Vessels based in the north are mainly in Cairns, Darwin and Fremantle. The catch in 2006 was distributed about 33% Queensland waters, 40% in Northern Territory Gulf waters and 27% in other Northern Territory waters.

Following the relocation of Austral Fisheries’ 10 trawlers from Darwin to Cairns taking place at present, it is believed that there will only be about 15 – 20 left in Darwin with 32 located in Cairns.

The offshore Coral Sea Fishery is only small with 18 fishing permits operating.

- Line and trap: 9
- Trawl: 2
- Sea cucumber: 2
- Aquarium: 2
- Lobster & trochus: 3

Only 192 tonnes of fish was landed in 2006/07, value $1.38 million.

Torres Strait Fishery is operated in association with Papua New Guinea by the Torres Strait Protected Zone Joint Authority and includes a number of fisheries including prawn, line, mackerel and lobster, plus a number of other smaller fisheries that vary over time including beche-de-mer and trochus. The prawn fishery operates around Yorke I, especially with trawlers based in Cairns and supplied by a ‘mothership’ out of Cairns. The mackerel and line fisheries are operated with small vessels by a mix of outside commercial fishermen and local indigenous fishermen. The lobster industry is heavily operated by local indigenous fishermen using small boats. There are proposals to allocate more of the licences to local indigenous persons.

There are a number of inshore fisheries controlled by the Queensland Government including:

- East Coast Trawl Fisheries.
- East Coast & Gulf Line Fisheries.
- East Coast & Gulf Net Fisheries.
- Live Fish Trade.
- Aquarium Fish.

Aquarium Fish operations are mainly out of Cairns with 3 operators accounting for about 75% of the industry. The live fish trade is spread up and down the northern Queensland coast, but with Cairns acting as the main point for air freight export to Hong Kong.

Numbers of fishing vessels identified as being based in Cairns and the other east coast ports are as follows.
Table #31: Numbers Fishing Vessels, Cairns and Other East Coast Ports

<table>
<thead>
<tr>
<th>Location</th>
<th>Total</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td>110</td>
<td>60 East Coast/Torres Strait trawlers 14 – 18 meters (only 40 working)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32 Gulf trawlers (including 10 Austral Fisheries just relocated to Cairns)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 Net</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Live trout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Tuna</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Aquarium</td>
</tr>
<tr>
<td>Cardwell</td>
<td>6</td>
<td>Line/Net/ Crab</td>
</tr>
<tr>
<td>Innisfail/Mourilyan</td>
<td>13</td>
<td>7 Trawlers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Other</td>
</tr>
<tr>
<td>Port Douglas</td>
<td>7</td>
<td>3 Trawlers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Other</td>
</tr>
<tr>
<td>Cooktown/Charlotte Bay</td>
<td>23</td>
<td>12 Mainly live trout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 Cray (Cooktown to Ti)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Crab/Net</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td></td>
</tr>
</tbody>
</table>

We thus have some 153 vessels identified as being based in the Cairns and the other east coast ports.

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trawlers</td>
<td>102</td>
</tr>
<tr>
<td>Other</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
</tr>
</tbody>
</table>

In the Torres Strait, there are 12 trawlers operating but based in Cairns. There are also commercial line and cray fishermen operating, but mainly based out of Cairns. There are substantial numbers of small local indigenous boats operating in the cray and line fisheries, but mainly operating from small ‘runabouts’.

DPI Fishery statistics indicate over 100 commercial fishing vessels operating in the Queensland Gulf fisheries.

Some 30 of these are trawlers based in Cairns and others come into the prawn fishery from Darwin and Western Australia. Boats operating in the line net and crab fisheries are locally based at Karumba and Weipa.

Some 8 barra and mackerel boats (16 – 20m) operate from Weipa and the occasional trawler.

Fishing vessels based in the Karumba area were estimated at:

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3 fishery mainly Barramundi and King Threadfin 10m and under</td>
<td>74</td>
</tr>
<tr>
<td>N3 fishery mainly Barramundi and King Threadfin 10 to 20m</td>
<td>62</td>
</tr>
<tr>
<td>N3 fishery mainly Barramundi and King Threadfin 10 to 20m</td>
<td>62</td>
</tr>
<tr>
<td>Shark Grey Mackerel boats (20m)</td>
<td>2</td>
</tr>
<tr>
<td>Spanish Mackerel (20m)</td>
<td>1</td>
</tr>
<tr>
<td>Prawn Trawler (A Raptis &amp; Sons)</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
</tr>
</tbody>
</table>

Company ownership of prawn trawlers is estimated at east coast - 10%, Torres - nil, and Gulf - 70%.
3.2.4 Reef (Tourism) Fleet

There is a large fleet of vessels based in Cairns, Port Douglas, Cape Tribulation, Mission Beach and operating from Deeral Landing offering day trips to the reef.

They range from large fast ferries through to smaller vessels concentrating on also providing diving experiences. Then there are the specialist diving operations and charter fishing operators including game fishing boats.

Passenger movements ex Cairns total about 700,000 a year, ie. an average of close to 2,000 a day.

Major ferry operators are:

- Ex Cairns: Quicksilver Cruises, Great Adventures, Sunlover Cruises, Big Cat Green Island Reef Cruises, Reef Magic Cruises, Ocean Spirit Cruises
- Ex Port Douglas: Quicksilver Cruises
- Ex Cape Tribulation: Ocean Spirit Cruises
- Ex Clump Point: Quick Cat Cruises
- Ex Deeral: Franklin Island Cruises

The following gives details of capacity of 16 major vessels.

<table>
<thead>
<tr>
<th>Length meter</th>
<th>Pax Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>350</td>
</tr>
<tr>
<td>34</td>
<td>400</td>
</tr>
<tr>
<td>Unspec</td>
<td>170</td>
</tr>
<tr>
<td>32</td>
<td>160</td>
</tr>
<tr>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>30</td>
<td>300</td>
</tr>
<tr>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>25</td>
<td>85</td>
</tr>
<tr>
<td>24</td>
<td>130</td>
</tr>
<tr>
<td>24</td>
<td>120</td>
</tr>
<tr>
<td>28</td>
<td>90</td>
</tr>
<tr>
<td>Port Douglas</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>450</td>
</tr>
<tr>
<td>37</td>
<td>300</td>
</tr>
<tr>
<td>32</td>
<td>150</td>
</tr>
<tr>
<td>Cape Tribulation</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>Franklin I (Deeral)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,065</strong></td>
</tr>
</tbody>
</table>
Other significant operators are as follows (some are sailing catamarans):

- Ocean Free & Freedom Cairns
- Passions of Paradise Cairns
- Ranging Thunder Cairns
- Reef Encounter Cairns
- Compass Cruises Cairns
- New Horizon Cairns
- Stardancer Sailing Cairns
- Seastar Cruises Cairns
- Reef Daytripper Cairns
- Calypso Cruises Clump Point
- Floreat Reef Charter Cairns

Daily reef tour passenger capacity is estimated at over 3,500 passengers.

Some 15 boats conducting sightseeing or fishing tours of Cairns inlet were identified.

In addition, there is an extensive reef visitation capacity for diving.

Major Cairns based diving oriented operators are:

- Deep Sea Divers Den Cairns
- Taka Dive Cairns
- Cairns Dive Centre Cairns
- Mike Ball Dive Expeditions Cairns
- Spirit of Freedom Cairns
- Pro Dive Cairns
- Tusa Dive Cairns
- Down Under Dive Cairns
- Rum Runner Cairns

Port Douglas diving and/or charter operations include:

- Aristocat Pt Douglas
- Enterprise Pt Douglas
- Haba Dive Pt Douglas
- Joe Joe Pt Douglas
- Thornton Pt Douglas
- Poseidon Pt Douglas
- Bianca Charters Pt Douglas
- Silversonic (Quicksilver) Pt Douglas

Number of charter fishing boats (excluding game fishing) in the area is estimated at:

- Cairns 2
- Port Douglas 8
- Clump Point 1
- Innisfail 6

Game fishing boats identified are as follows:

- Cairns permanently: 4
  in season extra: 6
- Half Moon Bay (Yorkeys Knob) 2
- Port Douglas 6

The game fishing is mainly from mid-September to mid-November and takes place heavily in the Cooktown area. Boats can come from as far away as Victoria and New Zealand. Peak numbers operating Cooktown/Lizard Island area was estimated as 15 boats.
Total capacity for reef visitation (including local cruise ships) is estimated at over 5,000 passengers and that the fleet for day trips is operating at about 60% of capacity (see TNQ Tourism Repositioning Study).

Apart from the reef fleet, there are boats operating along the coast not visiting the reef for inlet/estuary trips as follows:

- Houseboats Cardwell area: 8
- Cassowary Coast: 5
- Cairns Inlet: 15
- Port Douglas/Daintree: 7

Some 5 fishing and island tour boats have been identified based at Thursday Island and Seisia.

There are fishing charter vessels at Weipa.

Some 5 tourism operators were identified at Karumba providing a mixed range of sunset cruises, morning river cruises, croc spotting, bird watching, half and full-day fishing expeditions and crabbing.

Total is close to 50 vessels in this category in the region involved in tourism operations.

Cruising Yachts
Cairns is a major centre for cruising yachts (motorised and sailing). There are 74 based in Cairns. Numbers visiting on any given day ranges from 30 to 65. Cairns Ports advises that about 1,200 visit each year.

Cruising yachts also visit Port Hinchinbrook, Clump Point, Innisfail, Half Moon Bay Marina (Yorkey’s Knob), Port Douglas, Cooktown and there is a steady stream calling at Thursday Island and Red Island Point (Seisia).

Numbers calling at Cooktown are estimated as - Australian about 150 a year, and international about 100 a year. Numbers calling at Thursday Island were estimated in 2006/07 at about 100 a year first/last international calls and 100 domestic passing through. About 100 a year were estimated to visit Seisia.

Superyachts
About 40 superyachts visit the port of Cairns each year.

One is based in Cairns, one spends most of the year based in Cairns, and 2 are based at Yorkey’s Knob.

It is believed about 5 will call at Thursday Island each year which is also a port of entry/exit.

Cruise Ships
Up until 2007, there were two companies operating cruise ships out of Cairns – Captain Cook Cruises (Reef Endeavour) and Coral Princess. Captain Cook Cruises ceased operating in 2007. Coral Princess operates two vessels.

Cairns is the most visited cruise ship port after Sydney with over 30 visits a year (see Table). In addition, a number of larger ships (about 12 a year) that cannot enter the port stand off Half Moon Bay (Yorkey’s Knob) and ferry passengers ashore to the Marina.

Cruise ships are also making Thursday I and some of the other Torres Strait islands a regular port of call. In 2006, a total of 28 calls were composed of Cairns based Reef Endeavour 10, Coral Princess 6, and Other 12.

Cruise ships also regularly visit Cooktown including Cairns based Coral Princess twice a week. Some of the larger vessels anchor offshore and send passengers in on their tenders.
3.2.5 Navy and Government Vessels

The Navy has a fleet of about 50 vessels distributed over four operational bases Sydney, Fremantle, Cairns and Darwin.

The following Table gives the disposition of these vessels.

<table>
<thead>
<tr>
<th>Table #32: Disposition of Naval Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
</tr>
<tr>
<td>Adelaide Class Destroyers</td>
</tr>
<tr>
<td>Anzac Class Frigates</td>
</tr>
<tr>
<td>Collins Class Submarines</td>
</tr>
<tr>
<td>Huon Class Mine Sweepers</td>
</tr>
<tr>
<td>Armidale Class Patrol Boats</td>
</tr>
<tr>
<td>Leeuwin Class Hydrographic Survey</td>
</tr>
<tr>
<td>Hydrographic Survey Launches</td>
</tr>
<tr>
<td>Landing Ship Heavy</td>
</tr>
<tr>
<td>Replenishment</td>
</tr>
<tr>
<td>Landing Platforms Amphibious</td>
</tr>
<tr>
<td>Landing Craft Heavy</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

* Note: The patrol boats move around and additional boats are often in Cairns and are often in the Torres Strait area.

The Navy thus has 14 vessels stationed in Cairns. It also has a dive launch (18m), the Malu Baizam stationed at Thursday Island.

The following other government vessels are stationed in the region.

- Australian Customs Services have 6 vessels (6 – 12m) dedicated to the region (Cairns, Weipa and Thursday Island). (Refits for Australia’s Customs vessels are carried out at Norship Marine, Cairns.) Australian Customs Services also have a marine unit based in Canberra which operates 8 vessels (35m) with no homeport. The refits for these vessels are carried out by Norship Marine, Cairns.


- Queensland Police have 3 vessels ranging in size: Thursday Island – 1 (4.2 to 14.8m).

- Great Barrier Reef Marine Park Authority (GBRMPA) – One vessel (8m) homeported in Cairns and services the entire Great Barrier Reef Marine Park. GBRMPA works collaboratively with other government agencies with boats.

There are 6 pilot boats at Thursday Island, Torres Strait Pilots (3), and Australian Reef Pilots (3). There was one pilot boat that was identified as being based in Weipa.
3.3 MARITIME SUPPORT ACTIVITIES

3.3.1 General

The large concentration of home ported ships in the area leads to a strong level of marine support activities ranging over a broad field.

As a general statement, Cairns has the leading capacity and range of capability in this field in the wider North Australia/South West Pacific area.

By and large, it offers superior size and range of services to those offered in Darwin and Port Moresby and down the Queensland coast (Townsville, Whitsundays and Mackay).

In higher order services and larger vessels, it competes in the south with Brisbane and Sydney, in the Pacific Islands area with Auckland (New Zealand), and in the South West Pacific Island areas with the Philippines and with Singapore. In higher order services, it competes with Fremantle to service vessels operating across the north coast of Australia.

3.3.2 Slipways and Ship Repair & Maintenance Facilities, Cairns

Cairns has the leading slipway/travel lift capacity in the north with an ability to handle a full range of vessel types (timber, steel and aluminium), and from small vessels up to 3,000 tonnes.

There are two major operational slipways with largely complementary capacity, and one travel lift with a capacity up to 400 tonnes, and two smaller facilities dependent on smaller travel lift capacity.

Tropical Reef Shipyard
- Larger vessels, 3,000 tonne slipway capable of lifting vessels up to 90 metres maximum beam 19.6 metres.
- Floating 300 tonne capacity for smaller vessels.
- Deepwater fitting out berths for up to 7 vessels.
- Four (4) cranes of various capacity up to 100 tonnes.
- Two (2) workboats for vessel movement.
- Forklifts, elevated work platforms.
- Grit blasting, high pressure water from 3000 to 40,000 pst.
- Assessed by AJA Registrars and registered against the requirements of:
  - BS EN ISO 9001 : 2000/AS/NZS
  - OHSAS 18001 : 1999
  - BS EN ISO 14001 : 2004/AS/NZ
- Further machine shop facilities including propeller repatching, repairing and balancing, plate rollers, large welding equipment and steel thickness gauging.

Cairns Slipways
- Main slipway vessels up to 1500 tonnes and 80 metres in length.
- Graving dock 60.0m x 11.8m x 3m.
- Side slip vessels 200 tonnes and 40m length.
- Rail haul out to large shipbuilding halls for undercover work (AIMTEK).
- 360 metres available wharf space equipped with craneage, landlines water and shore power.
- Backup services offered include engineering, electrics and electronics, interiors and upholstery, life raft servicing, paint application, structural repairs.
Norship Marine
- Travel lifts = up to 400 tonnes, 60m long x 11.5m wide.
- Slipway, cranage, hauling, cherry pickers, forklift.
- Cleaning, painting and blasting sheds.
- Engineering, diesel fitting, transmission, mechanical engineering, machine shop, hydraulics, fabrication.
- Chandlery retail.
- DNV accredited welders.

Cairns Cruising Yacht Squadron
- Facilities operated on its behalf by Norship Marine.
- Travel lift of 40 tonnes.
- Hard standing areas to work on boats.
- Relationship with the Big Boat Shed across Tingara Street.

The Big Boat Shed
- Uses Cairns Cruising Yacht Squadron’s 40 tonnes travel lift.
- Range of resident services.
- Has done Navy landing and dumb barge work.

There is also an old small slipway on the other side of Trinity Inlet.

There are also slipways/travel lifts in the region at smaller centres as follows.

Cardwell = Norship Marine have established a travel lift with capacity 80 tonnes with back up service facilities.

Innisfail = There have been two slipways at Innisfail. Flying Fish Point slipway (250 tonnes) accommodating vessels up to 120 meters with a 65-tonne cradle lift. Clients need to provide their own tradesmen. Johnstone River slipway (includes a travel lift) which is up for sale.

Port Douglas = The small old Island Point slipway is now surrounded by tourism developments. Clients of the slipway need to provide their own tradesmen although the slipway can project manage. There is a proposal to build a further slipway 500m upstream.

Thursday Island = The commercial slipway at Rebel Marine built in 1993/94 is used only for the company’s own Horn I ferries. McDonald’s Charter (and ferry operations) slipway is believed to be used by that company for their own boats and Torres Pilots have used it.

Weipa = There is a proposal to develop a travel lift operation.

Karumba = The slipway in Karumba has closed. There is no common user public wharf to work at.

The following provides information about slipways/travel lifts in surrounding regions.

Darwin
Paspaley Group – Pearl Marine Engineering/Darwin Ship Repair and Engineering
- Syncrolift platform 62.5m x 22m capacity 2550 tonnes.
- Six hardstand bays.
- Engineering, machinery shop, fabrication and boilershop, electrical and hydraulics workshops.
- Water and abrasive blasting and painting.

Darwin Naval Base
- Syncrolift facilities to take Armidale Class Patrol Boats.
- Three (3) hardstand bays.

Coringle Slipway
- Perkins Shipping Group have a 60mt and 500mt slipway, a fully equipped workshop/machine shop and boiler making shed.
Cullen Bay Slipway
- Up to 40 tonne rail slipway.
- Repairs and chandlery.

Sadgroves Quay
- 70 tonne travel lift.
- Fully serviced yard.

Spot On Marine
- 50 tonne travel lift and boatyard facility.

Port Moresby
There is a slipway near the main wharves at Port Moresby (owned by Steamships and operating under the name Marine Engineering Services), capable of taking vessels up to 300 tonnes (unconfirmed). It is currently closed and being upgraded. It was reported that Raptis' fishing vessels operating in the FNQ region are using this slipway for blasting and painting work.

Curtain Brothers have built a major facility at Fairfax Harbour on Motukea Island called the Papua New Guinea Dockyard surrounded by a 77ha prime industrial park with capacity as follows.

Lift
- up to 5,000 tonnes
- 125 metres in length
- 25 metre beam
- 5 metre draft

Transfer system
- allows 9 vessels to be serviced at the one time

Lay up berth
- 150 metres.

Certified
- ISO 9002

Other Queensland
There are three slipway facilities in Townsville.
- Rosshaven Marine - 2 shiplifters 70 and 180 tonnes and Ross Ck Slipway 500 tonnes.
- Townsville Slipways - A 15 and 65 tonne rail slips.
- Curtain Brothers - Facilities used for own vessels

Bowen Marina Slipways have two small slipways of limited capacity.

Hawkes Boatyard at Airlie Beach has a Travel lift up to 50mt.

Mackay slipway is owned by Endeavour Shipping Cairns and has a limit of 750 tonnes.

Mackay Marina Village and Shipyard operates a 65 tonne travel lift capable of slipping single, double or triple hulled vessels.

3.3.3 Ship Building
Cairns' role in ship building has fallen away in recent years. There is no ship building currently taking place. However, there is a significant amount of boat building identified. Cairns Custom Craft have been building aluminium boats in Cairns for the past 30 years.

English Engineering and Norweld build small aluminium boats (tinnies). The following companies build recreational boats; Hooker, Opal Marine and Cyclone Boats. Many companies previously built commercial boats but have remained viable by embracing the buoyant recreation vessel market.

AIMTEK (NQEA) and other Cairns fabricators have the experience and capacity to re-enter ship building and are tendering to construct modules for the Air-warfare Destroyer project. (See Section 5 Economic Trends.)
3.3.4 Sub Contract, Supply & Other Services

CAIRNS

Cairns offers diversified backup services on top of those offered by the slipways themselves.

The following lists firms identified as being relevant to the sector. It is likely that there could be others we have not been able to identify.

1) Engineering/Shipbuilding Halls

**AIMTEK (NQEA), Cook Street, Portsmith**

Aimtek, formerly NQEA, has many years of experience in shipbuilding, providing maintenance/refit services to the Navy, especially in cooperation with Cairns Slipways, formerly owned by NQEA.

Its team includes naval design staff and an ability to design and build ships.

Its facilities include the large shipbuilding halls that can be used for undercover ship repair and maintenance.

Its engineering workshop includes capacity as follows:
- CNC milling large and small jobs (8 metre long bed).
- CNC turning (450 x 2000).
- Shaft lathe (7500 mm).
- Metal spray bearing journal repairs (hot and cold).
- Plate rolling (3000 x 20 x 600).
- Tested welding.
- Pressure vessel manufacture.
- CNC pipe bending.
- NDT examination and inspection.
- Weld procedure and operation qualification.
- Weld stress relieving furnace.
- Design capabilities.
- ISO 9001 Quality Systems.

2) Marine Engineering and Fabrication

**English Engineering (engineers and boat building)**

- English Engineering have a long standing general engineering capability. Workshop includes welders, lathes, milling machines and presses.
- They have special capabilities in aluminium boat building including in the past, building semi submersible reef viewers.
- Employment 32.

**Tropic Engineering (laser technology)**

- Marine engineering is 80% of business.
- Has laser equipment to line up gearboxes and shafts. Have designed and patented machine which weighs motors and works with laser equipment to measure vibration.
- Employment 7.

**Dragon Flite (marine engineering)**

- General marine engineering (lathe, milling machine, drill press, hydraulic press, welders, workshop vessel) especially for slipways, including visiting yachts requiring refit and repair.
- Employment 5.

**JM & JP Spencer Marine Engineering (propeller and shaft gear)**

- Machinery, fabrication, fitting lathes, guillotine, presses, forges, welding plant, mobile service vehicles.
- Special capability/skills – marine engineering experience in operation of and maintenance of marine systems, establishing economic efficiency in propulsion systems. Propeller and shaft gear supplies.
- Employment 6.
Cairns Custom Craft (aluminium boat building)
- Been building aluminium boats in Cairns for 30 years.
- Employment 14.

Perrott Engineering
- General marine engineering.
- Employment 15.

GP Engineering (marine and general engineering)
- Machining aluminium and stainless steel welding including for marine.

Electroshine (stainproof steel)
- Equipment to polish stainless steel to stainproof it. Only machinery to do this in the north. Marine is part of the market, especially whiteboats. Some fabrication of stainless steel items.

Cashcor Engineering (general engineering)
- General engineering including for marine sector, including plate rolling, pipe and tube bending, section rolling, presses, metal polishing, guillotine, water jet cutting.

Buongiornos Marine & Engineering (general engineering)
- Aluminium boat builder and repair also steel, stainless steel and aluminium fabrication and welding.

Ansell Engineering
- General marine engineering.

Ruby Marine Engineering
- General marine engineering.

Shoreweld Engineering
- Marine and other engineering. Welding equipment, pan brakes, ring roller, plasma cutting, pipe and tube bending, lathes, milling, mobile welding. Marine fabrication airgrills, direct glazing.

Dawsons Heavy Engineering
- General structural and other engineering including marine.

Perrott Marine Group
- General marine engineering, fabrication and propeller sales/maintenance.

Norweld Engineering
- Operate Endeavour Shipping but also minor ship repair and maintenance.

Gary Finglas Marine Maintenance
- Mobile engineering and repair services.

In addition, there is a substantial structural engineering capacity in the city, eg. Fitzroy Fabrication, and Cairns Steel Fabricators, if needed.

3) Marine Electricians

Industrial & Marine Electrics (electrical/mechanical engineering)
- Electrical and mechanical engineering services, electrical services and associated materials and products.
- Extensive experience in navy boats/landing craft and containers.
- ISO 9001.
- Employment 83.

All Marine Electrics (specialist on-board work)
- Electrical contractor specialising in on-board installation, repairs and maintenance including superyachts, fishing vessels and Navy.
- Sole operator.

D&G Edwards Electrical (general and engine room ventilation)
- General marine electrics for fishing, Navy, reef fleet, cruising yachts, slipways.
- Special capability engine room ventilation and refrigeration.
- **FNQ Marine Industries Capability Profile** –

**Bang Electrics** (*experienced marine electrician*)
- Former NQEA staff/contracted to work on hydrographic vessels but also will carry out industrial, domestic and commercial.
- Sole tradesman.

**Cairns Marine Electrics** (*low voltage work*)
- Has normal electrical tradesmen equipment. Specially skilled in low voltage DC, 12 volt, 24 volt.
- Worked in all types of marine business - fishing, Navy, yachts, reef fleet including Coral Princess cruise ship.
- Employment 3.

**Masons Electrical & Marine System**
- Marine accessories retailing including waterwitch marine systems.

**Other**
- Others reported as involved in the field are Andy Guarrera, Jesse Mueller Electric, Dave Wegert Electric (Mirett Pty Ltd), Marlec Electrics, Pasma Electrical, Kevin Tenni Farm Marine & Auto Electrical.

4) Marine Refrigeration, Air Conditioning, Heat Exchangers & Air Compressors

**Casco Refrigeration Services** (*marine freezer & air conditioning systems*)
- Manufacture and install specialised marine freezer and A/c systems for fishing and cargo vessels, superyachts and maintenance for Navy.
- Have specialised welding equipment for manufacturing special seawater resistant alloys (cupro/nickel, SAR stainless steel, aluminium, titanium), heat exchangers tube expanders and removal equipment.
- Only firm qualified to manufacture pressure vessels to AS1210 C3 north of Gladstone. Hold several design approvals for refrigeration pressure vessels and heat exchangers for Queensland WPHS.
- About 25% of business in other parts of Australia.
- Employment 15.

**Cooltecq** (*general air conditioning and refrigeration*)
- General air conditioning and refrigeration firm with about 20% marine and experience in DC for marine.
- AS 4801.
- Employment 4.

**Haden Engineering** (*general air conditioning refrigeration and electrical*)
- General air conditioning refrigeration and electrical with about 10% marine, especially for Navy.
- Lloyds and Australian Standards.
- Total employment 60 of which 5 marine only.

**Ryans Radiators & Airconditioning** (*heat exchangers*)
- Clean and repair heat exchangers, sell new ones and supply coolant and descaler to Seaswift, fishing, Navy, reef fleet and slipways.
- Have beadblaster and organic soaking baths.
- About 30% of business up into PNG and down coast to Townsville and Mackay regions.
- Employment 7.

**C J Durham Engineering** (*refrigeration mechanic*)
- Heavily involved in servicing refrigerated containers.

**Cairns Compressors & Generator Service** (*compressors & generators*)
- Scheduled maintenance services, hire services, air receivers certification.
5) Marine Electronics & Communications & Sonar

Sonartech ATLAS Pty Ltd (hydrographic equipment)
- Supplier and maintenance of hydrographic surveying systems. Supply, maintenance and repair of hydrographic software equipment. Multi-beam, echosounders, single beam echosounders, side scan sonars, sub bottom profilers, hydrographic data processing software.
- About 50% of business local, 20% other Australia and 30% overseas - Asia Pacific. Air and airfreight access out of Cairns important to the business.
- ISO 9001 : 2000
- Employment 4.

Electrotech Australia (communication and navigation equipment)
- Marine electronics – supplies and service of communication and navigation equipment for trading fleet, fishing, Navy, reef fleet, cruise vessels, slipways and shipbuilders. Exclusive agent for some marine electronics equipment such as Thrane & Thrane, and Sperry Marine. Markets also to rest of Australia.
- ISO 9001, Det Norske Veritas certified, Lloyds Register certified radio surveyors.
- Employment 5.

Seaborne Electronics (repairs and maintenance marine electronics)
- Installation, repairs and maintenance of marine electronics. Only a small percentage in Cairns itself. Deals from Brisbane up across the north and into PNG/Pacific. Has electronic test equipment.
- Office in Townsville.
- ISO 9004, Lloyd Register A1 certified.
- Employment 4.

Brian Swinton Marine electronics (marine electronics)
- Most business in Cairns, but also across to Darwin and into Fiji to cargo, fishing, reef fleet, cruise ships, slipways.
- Has specialised equipment IFR meter, bird meter, radar dummy loads, computer software.

James Marine Electronics (installation, repair and radio surveys)
- Business, cargo, fishing, defence, superyachts. 20% Cairns, 60% PNG and 20% other Australia, including Darwin. Has radio survey test equipment.
- Lloyds Register, ABS and GL certified radio surveyors.
- Employment 2.

Tropicnet (internet to boats)
- General internet provider including providing to boats.

Telesat (marine television)
- Adjustment of satellite television for boats especially travelling northern hemisphere southern hemisphere including superyachts and defence.

AUSTEK (data & communications)
- Install and repair radio communications equipment, radio repeater systems. Distributors of satellite data communications, two way radios, microwave data links, satellite phones, marine communications and electronics.

Kraken Marine (satellite service provider)
- (See also Sundry Marine Services.)

Miles Electronics (satellite phone provider)
- Marine electronics has been scaled back dramatically and now only provides satellite phones.

Cairns Navigation Centre/Markwell Marine (communication and navigation equipment)
- Retail and repair of electronic navigational, chart and communication equipment.
6) Marine Engines

**MTU Detroit (engines)** - Sales and service of high performance marine diesel engines and electronic control systems supplying fishing, defence, reef fleet and visiting yachts.
Marginal diesel propulsion units, on-board generators, electronic control system, repair and diagnostic equipment available.
Technicians factory trained on MTU and Detroit diesel engines.
Employment 10.

**Cummins Diesel (engines)** - Major supply installation, repairs and maintenance of diesel engines and generators.
Cairns regional office also covers down to Bowen, out to Mt Isa and Indonesia.

**Cairns Diesel Service (diesel fuel injection)** - Well established and service dealers for Bosch, Zexel, Denso, Delphi and Stanadyne.

**Hastings Deering/CAT (engines)** - Sales and service including workshop services, engine rebuild centre, transmission and testing centre, in Cairns.

**K G Mechanical Services (marine diesel & transmission)** - Sales parts and services for Yanmar, ZF, Perkins, Seawasp.

**McLeod Engineering (marine engineering/diesel fitting)** - General marine engineering but specialising in diesel engines, transmissions, underwater gear, cooling systems, repowers, auxiliary power system. Employment 10.


**Truck Plant & Marine Repairs (repairs and service)** - Heavy equipment, diesel engines, transmissions, hydraulics.

**L&V Clarke (repairs and service)** - Automotive, industrial and marine diesel repairs and servicing – Detroit Engine Specialists.

**Advanced Diesel Injections (testing and repairs)** - Repairers of Caterpillar, Lucas Delphi, Bosch, Stanadyne, Dexcel, Denso, Ambac.

7) Marine Hydraulics

**Pitrek (hydraulics)** - Local branch of worldwide hydraulics products and services group. Includes customers in PNG.

**Tescorp (hydraulics & other)** - Parts and servicing of hydraulics, pneumatics, lubrication, filtration and gearbox servicing of diesel motors. Major suppliers and representatives - Parker, JSG, Enerpac, Whitelaw, Alamite, David Brown, Eaton, Festo, Hydac, OEM and Oilpath. Also offers engineering design with local clients plus clients in PNG/Pacific and other northern areas. Also offers hydraulic power packs and a range of winches.

**Perrott Engineering (hydraulics & engineering)** – Parts and servicing of hydraulics and pneumatics.

**Enzed (hydraulics)** - Hose services and repair, hose maintenance specialists, design guidelines, genuine parts.

8) Marine Insulation

**Northern Insulation (insulation)** - Thermal, acoustic and fire protection including exhaust systems and engine rooms. About 50% marine, including navy and superyachts, cargo, reef fleet and slipways. Has stud welding apparatus.
9) Chandlery & Other Supplies & Services

**Sharplift Marine & Industrial (supplies)** - Marine and industrial sales including some service and repairs. Mainly FNQ, some supplies to PNG and Fiji. Employment 9.

**Whitworths Marine & Leisure (chandlery)** - Ships chandlery.

**GNM Chandlery (ships chandlery)** - General ships chandlery.

**Cairns Wholesale Paints (paints)** - About 20% marine paints.

**Trinity Fire Services (fire protection)** - Substantial supply to marine industries including fishing, trading, reef fleet, superyachts including installation of mistex engine room fire suppressant, consclium fire detection systems, xflow water mist system.

**NQ Plastics (plastic items and repairs)** - Bin fitouts for export of live fish, windscreens for Navy, reef fleet plastic boat repairs, water tanks, plastic repairs.

**Battery World (batteries)** - Batteries for trading vessels, fishing, defence, reef fleet, superyachts, slipways.

**Battery Factory (batteries)** - Includes marine supplies.

**Carpet Bob, Solomon Flooring & Alamanda Carpet Cleaning** - Superyacht business carpets and flooring.

**Custom Far North Upholstery, Upholstery Works, Kens Canvas & Upholstery, Able Canvas** - Marine upholstery and canvas goods.

**North Qld Auto & Marine Windows** - Marine windows.

**Mitchells Marine** - Chandlery.

**Jenkins Rubber Shop** - Marine seals and matting, marine docking, rubber, grommets, and bungs.

10) Boat and Ancillary Sales

**Mitchells Marine** - Honda 4 stroke outboards, Seajay boats, Blue Fin boats, Cyclone Fibreglass boats, Oceanic trailers, chandlery, sale of used boats and outboards.

**Quay Marine** – Sales of new and used boats, boat servicing, and chandlery.

**Boatscene** – Sales of new boats such as Hooker, Signature (Haines), Allison, Polycraft, Bar Crusher, Ally Craft, Horizon and Xtreme. Used boat sales. Sale of Suzuki and Mariner engines. Boat repairs and maintenance. Range of chandlery, spare parts, marine electrics and accessories.

**Affordable Cars & Marine** – Sales of Stacer boats, service workshop.

**Bills Marine** - Boating, marine electronics, chandlery, outboard motors, Yamaha, Quintex, Lames Rinta, Waverunner, Stabi craft.

Back up sub contract and supply services in other Far Northern centres are identified as follows.

11) Painting & Protective Coatings

**ElectroShine** – Electropolishing of stainless steel making stainless steel stainproof.

**Phoenix Protective Coatings** – Specialises in the marine coatings industry and is fully licensed and able to work to all EPA guidelines and regulations.

**Cairns Wholesale Paints** – Major supplier of specialised marine paints.

**Luxury Yacht Refinishers** – Accredited applicator of AWLGRIP paints and specialise in the latest 2-pack finishes and applications. Services superyachts and commercial fleets.
12) Shipwrights & Ships Carpenters

Alan Hanley
CJH Yacht Services – Cairns based.

*Coastal Shipwrights/ Superior Fibreglass/Rogers Fibreglass* – Cairns business.

Dick Ward.

Doug Rice – Cairns based.

*Northern Boat Building Services* – Cairns business.

13) Container Rentals

*Cairns Containers* – Stratford
*Cape Containers* – Cairns
*Container Engineering NQ* – Cairns
*NQ Container Services* – Cairns
*Q’ld Container Traders* – Cairns
*Reef Packaging & Freight* – Cairns North

*Royal Wolf* – Woree

14) Marine Surveyors

*Lloyds Register Asia* (surveyors) - Classification for Lloyds Register Asia.

*Det Norske Veritas* (surveyors) - Classification for Det Norske Veritas.

*Pacific Nautical Services* (surveyors) - Marine surveys particularly for insurance companies on vessels carrying cargoes.

*Queensland Ship Surveyors Pty Ltd* (surveyors) - Ship/vessel surveying to state and national regulatory standards.

*Russ Larkin & Associates* (surveyors) - Classification for American Bureau of Shipping, consulting marine engineers and ship surveyors, loss assessors, ships valuers, IICL Container Surveyor.

*D&D Maritime Services* (surveyors) - General marine surveyor.

*Howell Maritime Services* (surveyors) - Classification for Bureau Veritas, IICL Container Surveyor.

*Stewart Marine Design* (surveyors) - (See also Naval Architects.)

*Camplin Dive Services* (surveyors) – Shipping underwater surveys, ISD 9001 : 2000 (pending), AS 9801 (pending).

*Trevor Buschel* (surveyor) - *Capt Bruce Copland* (surveyor)

15) Naval Architects

*Stewart Marine Design* - Naval architects since 1978.

*GA Glanville & Co Pty Ltd* - Naval architects. (See also Defence Contractors).

*Aimtek* - (See also Defence Contractors, Engineering/shipbuilding halls and defence contractors.)

16) Defence Contractors

*AIMTEK* - (See also Engineering/Shipbuilding Halls and Naval Architects.)

*GA Glanville & Co Pty Ltd* - (See also Naval Architects).

*Defence Maritime Services* - National organisation, office in Cairns.

*BAE System Australia* - International organisation, office in Cairns.

*Spotless* - National organisation, office in Cairns.

*Cypher Research Laboratories Pty Ltd* - Tactical data and other communication & encryption systems.

*Hawker Pacific* - Naval aircraft maintenance.
17) Navigational & Medical

**Cairns Chart Correcting Agency** *(charts)* - Authorised chart correcting agency supplying Defence, Customs, Shipping, Pilots and Superyachts. Supplying charts, boat books, flags and navigational instruments.

**Cairns Navigation Centre** *(electronic charts)* - Electronic navigational, electronic charts and communication equipment. Navman, Ray Marine, Garmin, GME, Fusion, CMap, Koden, JRC, Airmar, Glomex, Icom, etc.

**First Response Australia** *(first aid and medical equipment)* - Emergency medical response courses, first aid courses, medical equipment, occupational health and safety.

18) Freight Forwarders

- **Bonnell Customs Agency** – Cairns office
- **C.T. Freight** – Cairns office
- **T.A.C.S. International** – Cairns office
- **Worldlink International** – Cairns office

19) Cold Storage & Transport

- **A Raptis and Sons** – Cairns and Karumba coldstores
- **Access Cold Storage** – Cairns coldstores
- **Cairns Cold Trans** – Cairns transport
- **Harbourside Coldstore** – Cairns coldstores
- **JP Xpress Cold Storage** – Cairns coldstores
- **Wren Coldstores** – Karumba coldstores

20) Compass Adjusters

- **Captain Bob Moss** – Cairns based
- **Captain Bruce Copland** – Cairns based
- **Fruit Bat Marine Compass Adjusting** – Mission Beach based

21) Brokers

- **Ben Lexcen Marine Brokers** – Cairns office
- **Cairns International Boat Sales** – Cairns office
- **Kraken Yachts** – Cairns office
- **Sonar Marine** – Cairns office
- **The Big Boat Shed** – Cairns office

22) Ships & Customs Agents

- **A Raptis and Sons** – Cairns office
- **Bonnell Customs Agency** – Cairns office
- **Carter Marine Agencies** – Cairns office
- **Gulf Agency Company (Australia)** – Cairns office
- **Inchcape Shipping Services** – Cairns office
- **Kraken Marine Services** – Cairns office
- **Sea Swift** – Cairns office
- **Seaports Australia** – Cairns office
- **Wilhelmsen Ships Service** – Cairns office

23) Stevedoring Services

- **Northern Stevedoring Services** – Headquartered in Townsville with operations in Cairns, Mackay and Gladstone
24) Pilotage & Towage

Maritime Safety Queensland – Cairns office
Switzer (Towage) – Local staff
Australian Reef Pilots – Local staff
Torres Pilots – Local staff

25) Scuba Diving Supply & Services

Camplin Dive Services
B.C.C.S.
Airsure
Cairns Scuba Air
Pro-Dive
Scuba Quip Service
J.D. Marine Enterprises
Deep Sea Divers Den

26) Fuel Supplies

B.P.
Caltex
Origin Energy
Portsmith Fuel
Reliance Petroleum
Shell
Trinity Petroleum
Deep Sea Divers Den

27) Government

The marine operations in the area result in a substantial amount of government capacity related to the sector.

Cairns Ports – Administers Cairns seaport. At mid-2009, it is to take over other ports in the region except Weipa.

Ports Corporation Queensland (PCQ) – Administers Karumba, Weipa, Thursday I, Quintell Beach and Mourilyan seaports.

Queensland Sugar/Terminals – Operates the terminals at Cairns and Mourilyan.

AQIS - AQIS has staff based dealing with marine matters as follows.

Cairns – 8 covering Mourilyan to Cooktown.
Thursday Island – 6
Bamaga – 3
Weipa – 2

Customs - Customs National Marine Unit have staff at Cairns and Thursday I. Their fleet of 8 seagoing Bay Class Patrol Boats operating around the Australian coast are serviced by Norship Marine in Cairns. It is estimated that 70 regular staff are related to marine aspects and a further 33 are based in Cairns, but operate vessels in various parts of Australia.

Great Barrier Reef Marine Park – Great Barrier Reef Marine Park Authority (GBRMPA) has offices in Cairns. Queensland National Parks and Wildlife Service officers carry out a policing role for GBRMPA.

Queensland Boating & Fisheries – Have offices Cairns, Port Douglas, Karumba, Weipa and Thursday I.

Department of Primary Industries and Fisheries – (DPI&F) have a substantial fisheries office and fisheries research centre at Portsmith.
**Marine Safety Queensland** – Office in Cairns provides Harbour Master and pilotage services to the seaports of Cairns, Cape Flattery, Thursday I, Weipa, Karumba and Mourilyan.

**EPA Environmental Protection Agency** – It is estimated to have about 40 staff in the area relating to the marine environment and operations.

**Queensland Water Police** – Have a small presence in Cairns.

**Australian Federal Police** – Have an office in Thursday Island mainly relating to marine operations.

**CARDWELL**
- Cardwell is home to a small fleet of houseboats (from 9m to 15m), a reef charter boat, a game fish/reef charter boat, the Hinchinbrook ferry and about 3 tinny style sports-fishing charter boats.
- Port Hinchinbrook Marina offers 180 berths ranging in size from 10m to 35m, with plans to extend to 250 berths.
- Norship Marine services vessels from Townsville to Cairns with an 80 tonne travel lift and offers a complete service with their own specialised staff. If the skills are not available with the local staff, qualified tradesmen are brought in for the job.
- Port of Call provides chandlery, tackle and diesel and unleaded pontoon refuelling.
- Anything Marine provides a range of marine sales, equipment hire and general marine systems maintenance and repair for smaller vessels.

**INNISFAIL**
- The reduction in the commercial fleet has resulted in many businesses diversifying. Mechanical and engineering work is still carried out by North Coast Machinery, Innisfail Marine and Maalacan Engineering. Ship chandlery can be purchased from Innisfail Marine and North Coast Machinery. Many other tradesmen still carry out a small percentage of marine work.

**PORT DOUGLAS**
- The composition of the Port Douglas fleet has significantly changed with the lion share now focused on the tourism rather than the fishing industry.
- Support industries include:
  - Mechanical – Port Douglas Diesel.
  - Shipwrights – Port Douglas Shipwrights, Greg Draper Shipwright.
  - Electronics – Port Douglas Marine Electronics.
  - Refrigeration – Haden, Chillydog.
  - Electrical – Port Douglas Electrics, Reef Park Electrical.
  - Marine Surveyor – Port Douglas Ship Surveyors.
  - Chandlery – Shipshape.
  - Sales/Rigging – Grieg Rigging, Port Douglas Sailmakers, Nomad Sails.

**COOKTOWN**
- Cooktown’s marine services include Fisherman’s Wharf (chandlery & fuel) and Cooks Landing (fuel)
TORRES STRAITS/BAMAGA
- The Torres Strait/Bamaga area does not have a public slipway
- The majority of the marine fleet is recreational tinny's and is serviced by a variety of marine businesses. The commercial fleet either steams or is transported on a scheduled service of a coastal cargo vessel to repair and maintenance facilities in Cairns
- Marine related businesses include Lifelink Communications & Electronics, Waiben Light Marine Services, Carpentaria Yamaha, M & DM Ahboo, T.I. Marine, Cape York Ice and Tackle, Haden Refrigeration and Airconditioning, Peter J Myers Refrigeration & Airconditioning, NPA Electrics, B&B Electrical, Bill Ware Electrics and Torres Strait Maintenance Services

WEIPA
- Weipa supports a significant number of commercial vessels and an increasing number of recreational vessels. There is no slipway in Weipa
- The majority of the marine services are supplied by Carpentaria Contracting. Due to Weipa’s mining activities there is a stable supply of tradesmen with skills transferable to the marine industry

KARUMBA
- The Karumba slipway is closed and unlikely to reopen due to EPA regulations
- A Raptis & Sons has a workshop used only for their own fleet of 11 gulf prawn trawlers that are homeported in Karumba.
- Karumba is also home to a large fleet of line and net fishermen. Approximately 60 of the boats would be under 10m and able to be moved by trailer. As they are under 10m, regulations currently allow these vessels not to be in survey. The other 12 boats are under 12m except for two that are 17m and 20m respectively. A barge service to Mornington I also operates out of Karumba.
- Other services offered are Carpentaria Fuels, Wren Coldstores and A. Raptis & Sons Coldstores
3.3.5 Education and Training

General
The size of the marine industries sector in the region has led to the development over the years of marine training above that available in most regional areas of Australia.

Marine Training Standards
The International Maritime Organisation (IMO) held a convention to improve the worldwide standards for safety and training of professional mariners in 1978. The Standards of Training, Certification and Watchkeeping for Seafarers Convention established a code adopted by many nations in 1978 and was named the Seafarers Training, Certification & Watchkeeping (STCW) Code. Subsequent Conventions were held in 1991, 1994, 1995 & 1997 to update and revise the code. The amended code (STCW 95) is named for the year that it was accepted by the IMO and it's signatories. There are 133 IMO signatory countries in the world.

Another agency which issues a standard is the British Maritime and Coastguard Agency (MCA) and the US Coastguard (USG). Some courses on offer in the Cairns region are STCW, MCA & USG compliant or approved. All courses undertaken must be conducted by a Maritime Safety Queensland authorised Registered Training Organisation (RTO).

Currently Maritime Safety Queensland authorises the following RTOs:
- Tropical North Queensland TAFE (Cairns Maritime Academy)
- Maritime Training Services
- E-Campus Australia

Qualifications or units that require STCW 95 endorsement must be completed by an Australian Maritime Safety Authority approved training provider.

Existing Training Available

**Cairns Maritime Academy**
Cairns Maritime Academy at the Tropical North Queensland Institute of TAFE specialises in training programs which prepare students for local, state and federal licensing exams, subject to the requirements of individual agencies. Marine training programs include:
- Coxswain
- Master Class 5
- Master Class 4
- Marine Engine Driver Grade 1,2 and 3
- AMSA Certificate of Safety Training Course
- Elements of Shipboard Safety
- GMDSS General Operator’s Certificate
- Marine Radio
- Master of Yachts 200 ton - Offshore (STCW compliant training, MCA approved)
- Master of Yachts 200 ton - Ocean (STCW compliant training, MCA approved)

**Maritime Training Services**
Maritime Training Services offers the following courses:
- Marine Engine Driver Grade 1,2 and 3
- Master Class 4 and 5
- Coxswain

This business will cease trading in June 2009.

**E-Campus Australia**
E-Campus Australia provides the following courses:
- Master 4 and 5
- Coxswain
- Elements of Shipboard Safety

In addition to the Maritime Safety Queensland authorised RTOs, the following offer marine training:
Australian Superyacht College
The Australian Superyacht College in Port Douglas offers both vocational and recreational courses. Courses include:
- STCW 95 safety courses
- Diveboat Master 1, 2 and 3
- Mate and Master of Yachts 200 ton – Offshore (STCW, MCA & USCG compliant training)
- Mate and Master of Yachts 200 ton – Ocean (STCW, MCA & USCG compliant training)
- Master of Yachts 200 ton – Coastal (STCW, MCA & USCG compliant training)
- Steward/ess training for superyachts
- Megayacht Deck Crew including International Crew, Small Power Boat and RIB
- Master and VHF Radio Operator

Diversity Training Solutions
Diversity Training Solutions is an RTO able to instruct a range of courses including:
- Marine Engine Driver Grade 1, 2 and 3
- Master Class 4 and 5
- Coxswain

Elite Earthmoving Machinery Training Services North Queensland
Elite Earthmoving Machinery Training Services provides accredited courses in operating loadshifting equipment eg cranes and rigging.

First Response Australia
First Response Australia provides courses in first aid, emergency care and occupational health and safety such as:
- Certificate 3 in Public Safety (Aquatic Search and Rescue)
- Certificate 3 in Occupational Emergency Care (Aquatics)

Crew Pacific
Crew Pacific although not an RTO, offers an internationally recognised Competency Certificate for Super Yacht Steward/ess.

Pro Dive/ Deep Sea Divers Den/ Down Under Dive
All the above businesses offer internationally accredited PADI Dive Instructors courses.

Cairns Dive Centre
Cairns Dive Centre offers the internationally accredited SSI beginners to professional dive courses.

Australian Maritime College
Another institution that offers vocational training within a tertiary educational institution is the Australian Maritime College (AMC), an institute of the University of Tasmania. The AMC offers:
- Coxswain
- Master Class 4 and 5
- Marine Engine Driver 1, 2 and 3
- Tourism deckhand
- Elements of Shipboard Safety
- Maritime and Logistics Management
- Deck Officer
- Engineer Officer
- Integrated Rating
- Marine surveying
Proposed Marine College
The sector is about to take a major step forward with the establishment of the Great Barrier Reef International Marine College to be located in Tingara Street, Portsmith, Cairns.

There are a number of existing strands in marine training in Cairns that will come together in using the new college facilities.

The first is at school level with Woree High School conducting a special School Based Apprenticeship Program in the marine sector. The Department of Education and Woree High School will be involved in using the new college.

The second is the Tropical North Queensland College of TAFE Cairns Campus that has conducted marine training courses over many years.

These courses will in future be delivered through the Marine College facilities.

Finally, there are private and other registered training organisations (RTO’s) that will be able to use the facilities.

The courses initially available at the GBRI Marine College will be those types currently available in Cairns. However, it is envisaged that with the college facilities available, additional courses will be explored and mounted depending on demand, including with involvement of other RTO’s.

It is envisaged that this will include conduct of courses:

- Relating to larger size vessels in association with the Australian Maritime College, Launceston.
- In association with James Cook University, Cairns Campus.
- To meet special needs of the Australian Navy including:
  - Provision of formal qualifications to personnel transitioning from the Navy to private employment.
  - A special relationship with HMAS Cairns as the base for the Australian Navy’s Hydrographic Survey vessels.
- To meet special needs of the major catchment area of the College across Northern Australia and up into the Asia/Pacific island areas and other tropical countries.
- To meet needs of the maritime services sector located in the region, apart from the fleet of vessels operating in the area.

The Great Barrier Reef International Marine College will be governed by a special board to be established, with the buildings constructed under agreement between Cairns Ports Ltd and Queensland Department of Education.

Enquiries about marine education available in Cairns can be directed to the individual organisations or via the Marine College Project Director, Kim Anderson, Tel 0408 187 291, captaintkim@bigpond.com
3.3.6 Summary of Numbers of Businesses & Organisations

Number of firms identified in the sector in Cairns was as follows (see employment and turnover further details next section).

Note: Some firms provide more than one service and there will be some instances where the one firm/organisation is listed more than once.

Marine Repairs & Maintenance - Cairns

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slipways</td>
<td>6</td>
</tr>
<tr>
<td>Marine Engineering &amp; Fabrication</td>
<td>18</td>
</tr>
<tr>
<td>Painting and Protective Coatings</td>
<td>4</td>
</tr>
<tr>
<td>Marine Electrics</td>
<td>12</td>
</tr>
<tr>
<td>Marine Electronics/Sonar, etc</td>
<td>11</td>
</tr>
<tr>
<td>Shipwrights &amp; Ships Carpenters</td>
<td>6</td>
</tr>
<tr>
<td>Marine Engines</td>
<td>10</td>
</tr>
<tr>
<td>Marine Refrig/Aircon and Air Compressors</td>
<td>6</td>
</tr>
<tr>
<td>Hydraulics &amp; Insulation</td>
<td>5</td>
</tr>
<tr>
<td>Defence Contractors</td>
<td>7</td>
</tr>
</tbody>
</table>

Total.....................................................................85

Other Marine Services - Cairns

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping &amp; Customs Agents &amp; Stevedoring</td>
<td>10</td>
</tr>
<tr>
<td>Marine Surveyors &amp; Naval Architects</td>
<td>12</td>
</tr>
<tr>
<td>Marine Retailing &amp; Boat Sales</td>
<td>5</td>
</tr>
<tr>
<td>Container Supplies &amp; Services</td>
<td>7</td>
</tr>
<tr>
<td>Administration &amp; Government Departments</td>
<td>7</td>
</tr>
<tr>
<td>Pilotage &amp; Towage</td>
<td>4</td>
</tr>
<tr>
<td>Scuba Diving Supply &amp; Services</td>
<td>8</td>
</tr>
<tr>
<td>Fuel Supply</td>
<td>7</td>
</tr>
<tr>
<td>Marine Education &amp; Training</td>
<td>11</td>
</tr>
<tr>
<td>Freight Forwarders</td>
<td>4</td>
</tr>
<tr>
<td>Navigation &amp; Medical</td>
<td>6</td>
</tr>
<tr>
<td>Cold Storage &amp; Transport</td>
<td>5</td>
</tr>
<tr>
<td>Brokers</td>
<td>5</td>
</tr>
<tr>
<td>Ships Chandlery &amp; Other Supplies/Services</td>
<td>12</td>
</tr>
</tbody>
</table>

Total.....................................................................103

On top of this, some 16 marine oriented firms were identified in Port Douglas. It is estimated that Cardwell, Innisfail, Cooktown, Thursday Island, Weipa and Karumba would account for a further 25, ie. a total of about 40 outside of Cairns.

This gives a total of about 230. Allowing for firms providing more than one service, total number of businesses/organisations operating in the sector is about 200.
4. **INDICATIVE VALUE OF THE SECTOR**

4.1 **GENERAL**

The following seeks to identify value of the sector in 2007/08.

There are a number of income flows and relationships involved (Chart #34 illustrates).

First, there is the value of operations of the vessels in the region which we have generally grouped as Fishing, Trading, Tourism and Naval/Government.

There is also the value of marine industries’ support services including repairs and maintenance (slipways and others), port operations, other commercial services and government services like Marine Safety, Immigration, Customs, Fisheries Department, etc. However, the major part of the income flow for this group of activities comes from the local vessel operations and simply adding them together involves substantial double counting.

However, the marine services sector has an element of income that derives from visiting vessels and not from the locally based fleet:

- Through their spending on repairs and maintenance with slipways and otherwise.
- Through their general spending in the community (in the case of cruise ships, visiting super and cruising yachts)

Part of the outside earnings of the slipways, repairs and maintenance group can also be for new ship and boat building.

There is a question about inclusion of seaport/marine industry dependent activities. These can include agricultural industries like sugar growing that are dependent on shipping output through the seaport and on imported inputs like fertiliser. Mining output at Weipa is seaport dependent. Marine operations access to the reef means that much of the region’s tourism income is dependent on the marine industries.

In the past, we have identified and recorded “Seaport Dependent Activities” in valuing the seaport to the regional economy.

In this report, the “Seaport Dependent Industries” are not included.
Chart #33
Composition of Indicative Value of the Sector

(A) VALUE OF REGIONAL VESSEL OPERATIONS
FISHING, TRADING, TOURISM, NAVAL/GOVERNMENT

SPEND, IN PART, ON REGIONAL MARINE INDUSTRIES’ SERVICES

(B) VALUE OF MARINE INDUSTRY SERVICES

(C) SPENDING FROM OUTSIDE THE REGION
a) VISITING CRUISE SHIPS/NAVAL VESSELS/SUPER AND CRUISING YACHTS/TRADING VESSELS
   ▪ General visits.
   ▪ Visits specifically for maintenance repair services.
b) BUILDING OF SHIPS/BOATS FOR OPERATIONS OUTSIDE THE REGION.
c) SUPPLY OF MARINE SERVICES TO CENTRES OUTSIDE THE REGION.

TOTAL VALUE = A + C

Value of regional vessel operations, plus value of spending from outside the region (visiting vessels/shipbuilding/other services supply to outside centres).
4.2 VALUE OF VESSEL OPERATIONS

The following seeks to identify value of the sector to the regional economy.

4.2.1 Fishing

**Commercial Fishing**

<table>
<thead>
<tr>
<th>Commonwealth Fisheries</th>
<th>Notes</th>
<th>Est Approx Turnover</th>
<th>Notes</th>
<th>Est Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Prawn Fishery</td>
<td>(1)</td>
<td>$53 m</td>
<td>(1)</td>
<td>160</td>
</tr>
<tr>
<td>Torres Strait</td>
<td>(2)</td>
<td>$15 m</td>
<td>(2)</td>
<td>not available</td>
</tr>
<tr>
<td>Coral Sea Fishery</td>
<td>(3)</td>
<td>$1 m</td>
<td>(3)</td>
<td>not available</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$69 m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Queensland Fisheries**

| Other Gulf Net & Trawl               | (4)   | $15 m               | (4)   | 100            |
| East Coast Prawn                     | (5)   | $26 m               | (5)   | 130            |
| Live Trout                           | (6)   | $15 m               | (6)   | 120            |
| Other East Coast (Cray/, Beche-de-    | (7)   | $28 m               | (7)   | 180            |
| Mer, Tuna, Aquarium, Crab)           |       |                     |       |                |
| Mariculture/Aquaculture              | (8)   | $22 m               | (8)   | 210            |
| Total                                |       | $106 m              |       | 740            |

(1) Based on 32 Gulf trawlers based in Cairns. Average turnover $1.65m (current 2008/09 prices) (in 2007/08 values CPI Brisbane) and crew of 5.
(2) Value official statistics AFMA. There is a great deal of part-time employment, especially indigenous – employment is not able to be estimated.
(3) Value official statistics. Turnover per vessel not known and employment not able to be estimated.
(4) Value QDPIF Statistics. Estimated employment at $150,000 turnover per employee.
(5) Value estimate 50 boats based in region of which 7 are in the Torres Strait figures leaving 43 east coast. Average turnover $625,000 gives $27m turnover. Employment 130.
(6) Industry information.
(7) Estimates based on industry information.
(8) QDPIF website data for 2006/07 adjusted to 2007/08 values.

**Recreational Fishing**

Recreational fishing by locals and visitors form a significant part of the marine industries and leads to expenditure on boats and trailers, fishing gear, camping gear and the like.

It was not possible to obtain a local feedback from recreational fishers or from the extensive range of businesses they support in whole or part within the region.

The thoroughly researched 2000/01 National Recreational and Indigenous Fishing Survey – Economic Report by the Department of Agriculture, Forestry and Fisheries provides reliable information at national level that provides a basis for making ‘order of magnitude’ estimates of the value of what this element might be in the region.

The report indicates at a national level, the following level of composition of expenditure by 3.36 million fishers:

- Boats and trailers $940m
- Travel Associated with fishing $395m
- Fishing gear $183m
- Camping gear $134m
- Other $198m
- Total $1,850m

**Expenditure**

- Queensland $328m
- Australia north of the Tropic $74m
It is likely that local lifestyle and other factors lead to a higher propensity for population in the region (especially indigenous population), to engage in higher levels of recreation fishing activity. However, data about expenditure by indigenous population indicated that per capita spending impact was lower, reflecting lower expenditure on fancy equipment. We have assumed that the two factors balance out.

On a simple proportion of population basis, these point to a level of expenditure in Far North Queensland of about $22m in 2000/01. Inflation over 7 years to 2007/08 of 29.5% and population growth of 15.4% since then, would place this at $33m in current value. There were widespread reports that the GBRMPA Representative Areas Program (RAP) had resulted in a decrease in this activity. The report “Estimating the Impact on Recreational Fishing-dependent Businesses of the Great Barrier Reef Rezoning by Colin Hunt for Department of Environment & Heritage, Canberra, November 2005, provided some evidence that the drop in the Cairns section may have been as much as 37%. This would bring the figure back to about $22m if applied to the region as a whole. As it would not have applied to the region as a whole, it is estimated that as an order of magnitude figure, value is currently around the $25m mark.

4.2.2 Trading Fleet
Industry information made available indicates that total turnover of the trading fleet operating in the area was about $75m in 2007/08 with about 360 persons employed.

4.2.3 Reef Fleet & Tourism
It has not been possible to construct a comprehensive estimate of expenditure generated by the reef fleet and tourism vessels by returns received from individual operators. The following pieces together an estimate from various sources, including information from limited returns.

Reef Fleet
Total reef visitation is about one million to the outer reef and 320,000 to Green I. The following estimates turnover generated by the fleet excluding commissions.

<table>
<thead>
<tr>
<th>Reef</th>
<th>Expenditure</th>
<th>Volume (15% children)</th>
<th>Estimated turnover</th>
<th>Net of commissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green I</td>
<td>$69 - $105</td>
<td>$75 average</td>
<td>320,000</td>
<td>$22.00 m</td>
</tr>
<tr>
<td>Outer Reef</td>
<td>$100 - $200 plus</td>
<td>$150 average</td>
<td>1,000,000</td>
<td>$143 m</td>
</tr>
</tbody>
</table>

Net of commissions $18.00 m

Estimated trip turnover $114.5 m

Plus diving 10% @ $75 $7.5 m

$122 m

Total $140 m

This figure also equates with industry information from operators and approximate estimates of market share.

Non-Reef Fleet Small Tourism Operators
The 50 non-reef marine tourism operators around the region would range from very small incomes to some with substantial turnovers (eg. Torres Strait and large Cairns Inlet operations). It is estimated that average would probably be of the order of $120,000 a year giving a total of $6m.

Superyachts
Cummings Economics estimated turnover in the 2008 study at about $20m a year.
Cruising Yachts

Industry information indicates typical cruising yacht expenditure of repair, maintenance, operating costs and sustenance of $20,000 to $30,000 per annum, ie. about $60 to $80 per day. Cairns Marina records 74 full-time yachts plus 1,200 calling by average of 7 days, ie. 8,400 yacht days. These are higher end vessels and expenditure estimated at full-time $2.2m, visiting $0.7m, total $2.9m. Cairns has a quarter of the berths in marinas. Estimate for marinas for the region is $11.6m.

On top of this, industry information indicates that in Cairns, for every one cruising yacht in the marina, there will be 9 at anchor. At lower end expenditure of $60 a day, this would produce estimated expenditure in Cairns of $4.5m. Assuming for every one at anchor in Cairns there is a further 0.5 at anchor elsewhere in the region, would give a further $2.2m. On the foregoing basis, estimated expenditure generated by cruising yachts is of the order of $18m per annum.

Cruise Ships

Cruise Australia estimate puts expenditure at Cairns from visiting cruise ships at $6m. Local cruise ships are included in the reef fleet estimates.

The following table summarises the estimates:

<table>
<thead>
<tr>
<th>Summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reef Fleet</td>
<td>$140 m</td>
</tr>
<tr>
<td>Non-Reef Fleet Small Tourism Operators</td>
<td>$6 m</td>
</tr>
<tr>
<td>Superyachts</td>
<td>$20 m</td>
</tr>
<tr>
<td>Cruising Yachts</td>
<td>$18 m</td>
</tr>
<tr>
<td>Cruise Ships (visiting)</td>
<td>$6 m</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$190 m</strong></td>
</tr>
</tbody>
</table>

Most of the superyacht and cruising yacht expenditure is visiting vessels. Split local and visiting vessels is estimated:

- Local vessels: $150m
- Visiting: $40m

4.2.4 Naval, Government & Other Vessel Operations

The following gives estimated value of naval operations, other government vessels and pilot vessels in the region based on industry information.

<table>
<thead>
<tr>
<th>Government &amp; Pilot Vessel Operations</th>
<th>Notes</th>
<th>Est Turnover</th>
<th>Notes</th>
<th>Est Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAN</td>
<td>(1)</td>
<td>$140.0 m</td>
<td>(2)</td>
<td>900</td>
</tr>
<tr>
<td>Other Government vessels (AQIS, Immigration, Customs, NPWS, Cairns Port)</td>
<td>(3)</td>
<td>Included elsewhere</td>
<td>(3)</td>
<td>Included elsewhere</td>
</tr>
<tr>
<td>Pilotage</td>
<td></td>
<td>$6.3 m</td>
<td></td>
<td>61</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$146.3 m</strong></td>
<td></td>
<td><strong>961</strong></td>
</tr>
</tbody>
</table>

(1) Includes elements of wages, base maintenance, ship maintenance, fuel consumption and other operating expenses. This is an approximate estimate only.

(2) Uniform and non-uniform.

(3) See Other Marine Industry Services.
4.3 **VALUE OF MAINTENANCE, REPAIR & OTHER SUPPORT SERVICE OPERATIONS**

4.3.1 **Slipways**

Information available indicated that income of slipways in the region (including travel lift based operations), totalled about $51m and accounted for an estimated 360 full-time equivalent jobs.

Some of this income is derived from the regional fleet and some from outside the region. This varies between the slipways with a tendency for slipways handling larger vessels to earn more from outside the region.

Total earnings from outside the Far North Queensland fleet is estimated at about $16m, ie. about 30% of total slipway income.

4.3.2 **Repair and Maintenance and Other Services**

Repairs and maintenance includes marine engineering, marine electrics, marine painting and coating, marine engines, marine hydraulics, marine insulation, marine electronics, refrigeration and air conditioning.

Some 66 Cairns based firms were identified as operating in this field, many also providing services to other industries other than the marine industries, especially to road transport, mining and agricultural industries.

From information provided by the firms, marine related equivalent full-time employment was estimated at 260 and marine related turnover at $48m.

On top of the Cairns firms, about 30 such firms were identified in Cardwell, Innisfail, Port Douglas, Thursday Island, Weipa and Karumba, with an estimated employment of 100 and turnover about $5m (ie. 30 firms by average 1.7 employees, each by $100,000 turnover per employee).

The following summarises by sub groupings for Cairns and for the group outside of Cairns.

| Table #34: Summary of Repair & Maintenance Operations by Sub Groupings For Cairns and for Outside of Cairns |
|-------------------------------------------------|----------------------------------------|------------------------------------------|
| No. of Firms                                      | Est Turnover                          | Est Equiv Full-time Employment          |
| Engineering/Painting & Coating                   | 22                                     | $15 m                                   | 114                                       |
| Marine Electrics, Electronics, Sonar, etc        | 23                                     | $11 m                                   | 57                                        |
| Shipwrights etc.                                 | 6                                      | $3 m                                    | 23                                        |
| Marine Engines                                   | 10                                     | $10 m                                   | 48                                        |
| Marine Refrigeration, Aircon, Hydraulics & Insulation | 11                                     | $9 m                                    | 40                                        |
| Outside of Cairns                                | 40                                     | $6 m                                    | 60                                        |
| Total                                            | 112                                    | $54 m                                   | 342                                       |

Part of the income of these firms can come from expenditure by slipways.

It is estimated from industry information that ranging from 10 – 30% of major slipway turnover is spent on outside contractors but a large part of CYCC, Big Boat Shed and other smaller slipway turnover relates to outside contractors. It is estimated that outside contractor expenditure by slipways is about $15m.

The non-slipway repairs and maintenance sector is estimated to earn about 20% of its income from outside the region, especially from superyachts. Other elements include work on visiting cruising yachts, visiting cargo vessels and cruise ships and some earned by providing services into surrounding regions. Outside income by this group net of that through the slipways is estimated to be of the order of about $11m.
### 4.3.3 Other Marine Industry Services

The following table sets out estimates of employment and turnover for a range of other marine industry services.

<table>
<thead>
<tr>
<th>Cairns</th>
<th>Notes</th>
<th>Est Turnover</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping &amp; Customs Agents &amp; Stevedoring</td>
<td></td>
<td>$7.4 m</td>
<td>23</td>
</tr>
<tr>
<td>Marine Surveying &amp; Naval Architecture</td>
<td></td>
<td>$1.7 m</td>
<td>17</td>
</tr>
<tr>
<td>Marine Retailing &amp; Boat Sales</td>
<td>(1)</td>
<td>$11.0 m</td>
<td>39</td>
</tr>
<tr>
<td>Scuba Diving Related Sales &amp; Services</td>
<td>(2)</td>
<td>$2.9 m</td>
<td>20</td>
</tr>
<tr>
<td>Cold Storage</td>
<td></td>
<td>$3.7 m</td>
<td>14</td>
</tr>
<tr>
<td>Providing/Supplies</td>
<td>(3)</td>
<td>$10.0 m</td>
<td>40</td>
</tr>
<tr>
<td>Port Administration</td>
<td>(4)</td>
<td>$49.0 m</td>
<td>102</td>
</tr>
<tr>
<td>Other Government</td>
<td>(5)</td>
<td>$27 m</td>
<td>270</td>
</tr>
<tr>
<td>Fuel Supply</td>
<td>(6)</td>
<td>$1 m</td>
<td>10</td>
</tr>
<tr>
<td>Education</td>
<td>(7)</td>
<td>$1.6 m</td>
<td>16</td>
</tr>
<tr>
<td>Defence Contractors</td>
<td>(8)</td>
<td>$6.7 m</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$122 m</td>
<td>618</td>
</tr>
</tbody>
</table>

1. This is the turnover of major outlets in this field. Much of it will be to recreational boat users and fishermen. About 10% is estimated to involve commercial operators.

2. Figures for some of the operations in this group are included elsewhere with tourism diving operations and air compressors.

3. This estimate is for some of the main providors only. There is a great deal of minor supplying to the various marine operations including navy, cruise ships, superyachts, fishing vessels, visiting cargo vessels, and cruising yachts. This involves a myriad of minor items. It is not possible to completely track this through on the supply side.

4. Includes Cairns Ports, Ports Corp Q’ld, and Marine Safety Q’ld.

5. Other Government includes Customs, Immigration, AQIS, Water Police and Q’ld Dept of Primary Industries and Fisheries (marine related, GBRMPA, Q’ld National Parks & Wildlife Service (marine related).

6. Includes estimate of fuel supplied to marine operators only and shipped northwards by coastal shipping and proportion of employment by the fuel distributors based in Cairns. Turnover figure is estimated value added by operators.

7. Includes relevant Cairns TAFE, Crew Pacific and other private providers at $100,000 per employee.

8. Includes core staff employment only but not sub contractors of GA Glanville, DMS, BAE Systems, Spotless and estimate of turnover at $100,000 per employee.

Most of the turnover of shipping and customs agents and stevedoring is derived from visiting vessels.

Marine surveying and naval architecture is derived mainly from a mix of the local fleet, but a number of these businesses earn income from outside the region.

Marine retailing and boat sales is heavily to recreational fishermen, some to commercial operators, but some is to recreational boat users not recreational fishermen.

Scuba diving related sales are mainly related to reef fleet/tourism operations.
4.3.4 Overview

The following summarises employment and turnover in vessel operations of the locally based fleet (ie. it excludes spending by visiting vessels that is included in the next Table #38).

<table>
<thead>
<tr>
<th>Table #36: Local Vessel Operations Only</th>
<th>Est Turnover</th>
<th>Est Employment</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing Commercial &amp; Recreational</td>
<td>$200 m</td>
<td>900</td>
<td>(1)</td>
</tr>
<tr>
<td>Trading &amp; Other Work Vessels</td>
<td>$75 m</td>
<td>360</td>
<td></td>
</tr>
<tr>
<td>Reef Fleet &amp; Tourism</td>
<td>$150 m</td>
<td>750</td>
<td>(2)</td>
</tr>
<tr>
<td>Government &amp; Pilot Vessels</td>
<td>$146 m</td>
<td>960</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$571 m</strong></td>
<td><strong>2,970</strong></td>
<td></td>
</tr>
</tbody>
</table>

(1) Does not include employment in Torres Strait and Coral Sea Fishery. Much of this employment is on a part of year basis only.

(2) Estimate derived from est turnover of $150m divided by est of $200,000 per person employed.

On top of this, the region derives income from visiting vessels and other income derived from outside the region by local marine industry businesses estimated as follows.

<table>
<thead>
<tr>
<th>Table #37: Est Income from Visiting Vessels &amp; Other Sales by Marine Industry Outside the Region</th>
<th>Notes</th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cruise Ships (1)</td>
<td>(1)</td>
<td>$6 m</td>
</tr>
<tr>
<td>Superyachts (2)</td>
<td>(2)</td>
<td>$18 m</td>
</tr>
<tr>
<td>Cruising Yachts (3)</td>
<td>(3)</td>
<td>$16 m</td>
</tr>
<tr>
<td>Slipways (excluding superyachts) (4)</td>
<td>(4)</td>
<td>$8 m</td>
</tr>
<tr>
<td>Other Maintenance &amp; Repair (excluding superyachts) (5)</td>
<td>(5)</td>
<td>$4 m</td>
</tr>
<tr>
<td>Other Marine Services Shipping &amp; Customs Agents &amp;Providoring (6)</td>
<td>(6)</td>
<td>$7 m</td>
</tr>
<tr>
<td>Marine Survey &amp; Naval Architecture (7)</td>
<td>(7)</td>
<td>$1 m</td>
</tr>
<tr>
<td>Port Administration &amp; Government (8)</td>
<td>(8)</td>
<td>$40 m</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$100 m</td>
</tr>
</tbody>
</table>

(1) Cruise Australia shows a figure of $6m for Cairns. We believe this is an under estimate. It does not include locally based vessels whose turnover is included as part of the ‘reef fleet’ estimate.

(2) See Value of Superyachts report $20m less allowances for locally based operations.

(3) $18m less $2m.

(4) See text for explanation.

(5) See text for explanation.

(6) See previous table. Assumes almost all income is derived from visiting ships.

(7) See previous table. Assumes only part of income is derived from visiting ships.

(8) Assumes bulk of PCQ income and part only of Cairns Ports and Marina income is derived from visiting ships. Significant part of Customs and some other government turnover is assumed to relate to overseas vessel visits.

The above figures do not include a number of elements of sales to visiting ships - providoring and fuel.

Total income derived from visiting ships and other outside income is thus put at something over $100m a year bringing the total income to the region of the order of $650 – $700m a year.

Total employment generated is estimated as follows.

- Local Vessel Operations: 2,970
- Slipways: 360
- Other Repairs & Maintenance: 340
- Other Marine Industry Services: 620

**Total: 4,290**

Employment generated is estimated at over 4,000.
5. **ECONOMIC TRENDS AND OTHER FACTORS AFFECTING THE MARINE INDUSTRIES**

5.1 **GENERAL**

The following looks at economic trends and factors that have been affecting the maritime industries sector in the past and those that seem likely to affect these industries in the future.

In doing so, it draws heavily on the many responses received from key persons in the sector as a result of the questionnaire sent out and the many interviews undertaken as part of the research process.

This includes responses about markets and competitive factors affecting workforce, infrastructure, industry trends, strengths, weaknesses, opportunities, threats and growth expectations.

**Recent Major Changes in the Economic Situation**

It should be noted that the study was prepared during a period of major change in the global, national and regional economy.

During the first part of the research period, the world and Australian economy was experiencing overall buoyant conditions, but with tight labour conditions, with the mining sector particularly competing for workforce, growing inflation of input prices (especially fuel), high interest rates, and an extremely high Australian dollar, causing problems for a number of the region's industries and the sector in general.

From July onwards, conditions stated to change and October 2008 saw major changes take place.

The Australian dollar dropped against the US dollar and on a trade weighted index basis by about 30%. World fuel prices have dropped from their peak of over $140US a barrel to about $40 - $50US a barrel. Labour supply conditions have eased generally and in potential competition from the mining sector.

There are still substantial uncertainties around about the impacts of the recession currently underway in the USA and Europe and the marked slowing of global economic growth that is evident.

The following looks at economic trends and other factors that have been impacting firstly on likely demand for marine activities of cargo and work vessels, fishing, tourism, defence and the like, before looking at the maritime support activities.

**General Trend to Larger Vessels**

One fundamental trend needing to be recorded that is important throughout the sector is the trend to larger vessels.

This trend is evident throughout the sector - in cruise ships, in bulk cargo, fertiliser, fuel and sugar ships, in coastal trading vessels, in 'superyachts' becoming 'maxiyachts', in the Armidale class of patrol boats being larger than the Fremantle class, in fishing vessels being forced to travel further and become larger, and in the size of vessels that the slipways need to handle.
Shipping Availability & Freight Rates
The world commodities boom (up until recently), had led to a world wide shortage of shipping, both bulk and liner, and staff to run them and shipyards could not keep up with the demand.

It was claimed that if a Panamax vessel was ordered, it would start being built in 6 years time and an 80,000 tonne vessel would be started in 8 years. Against this background, sea freight rates had risen strongly.

More recent trends in the global economy can be expected to see shortages of shipping and freight rates fall.
5.2 SEAPORT TRADE, TRADING, WORK VESSELS & PORT FACILITIES

5.2.1 Existing Port Trades & Trends

The following tables give trends in cargo statistics for the region’s seaports.

Cairns Cargo Trends

Table #38: Cairns Seaport Cargo Movements (Tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sugar</th>
<th>Molasses</th>
<th>Petroleum Products</th>
<th>Other</th>
<th>Total Exports</th>
<th>Petroleum Products</th>
<th>Fertiliser</th>
<th>LPG</th>
<th>Other</th>
<th>Total Imports</th>
<th>Total Cargo</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/03</td>
<td>348,962</td>
<td>55,676</td>
<td>48,549</td>
<td>138,236</td>
<td>591,423</td>
<td>503,776</td>
<td>52,299</td>
<td>18,142</td>
<td>34,200</td>
<td>608,417</td>
<td>1,199,840</td>
</tr>
<tr>
<td>2003/04</td>
<td>281,158</td>
<td>56,176</td>
<td>36,984</td>
<td>138,989</td>
<td>513,307</td>
<td>542,638</td>
<td>55,100</td>
<td>17,361</td>
<td>35,876</td>
<td>650,975</td>
<td>1,164,282</td>
</tr>
<tr>
<td>2004/05</td>
<td>235,081</td>
<td>53,182</td>
<td>34,693</td>
<td>130,902</td>
<td>453,858</td>
<td>540,747</td>
<td>72,589</td>
<td>14,274</td>
<td>38,360</td>
<td>665,970</td>
<td>1,119,828</td>
</tr>
<tr>
<td>2005/06</td>
<td>241,315</td>
<td>50,883</td>
<td>34,630</td>
<td>160,713</td>
<td>487,541</td>
<td>545,392</td>
<td>42,370</td>
<td>17,146</td>
<td>40,263</td>
<td>645,171</td>
<td>1,132,712</td>
</tr>
<tr>
<td>2006/07</td>
<td>166,450</td>
<td>40,711</td>
<td>34,489</td>
<td>159,458</td>
<td>401,108</td>
<td>545,765</td>
<td>54,199</td>
<td>18,539</td>
<td>45,253</td>
<td>663,976</td>
<td>1,065,084</td>
</tr>
<tr>
<td>2007/08</td>
<td>289,123</td>
<td>44,412</td>
<td>26,439</td>
<td>180,846</td>
<td>540,820</td>
<td>546,887</td>
<td>41,354</td>
<td>18,719</td>
<td>43,964</td>
<td>650,924</td>
<td>1,191,744</td>
</tr>
</tbody>
</table>

Average Annual Growth

1 Yr | 73.70% | 9.09% | -23.34% | 13.41% | 34.83% | 0.21% | -24.01% | 0.97% | -2.85% | -1.97% | 11.89% |
5 Yrs | -3.69% | -4.42% | -11.45% | 5.52% | -1.77% | 1.66% | -4.59% | 0.63% | 5.15% | 1.36% | -0.14% |

Chart #39 : Cargo Tonnages FNQ Seaports

Thursday Island

Port of THURSDAY ISLAND Trade

Product is General Cargo

Weipa

Port of WEIPA Trade

Products: Fuel, General Cargo, Livestock

Cape Flattery

Port of CAPE FLATTERY Trade

Product is Silica Sand

Mourilyan

Port of MOURILYAN Trade

Products: Sugar, Molasses
Statistics on sea trade through the port of Cairns (see Table #19) indicate a number of patterns.

Bulk sugar and molasses exports are static and fluctuate from year to year depending on the crop. Under the influence of Cyclone Larry, volumes were down in 2006/07 but recovered in 2007/08.

The indications are that the volume of raw sugar cargoes will continue this pattern at both Cairns and Mourilyan seaports.

Bulk import cargo of petroleum product has been tending to decline. It could be expected that volumes would increase with general growth in the economy and population. However, there have been a number of negative factors in recent years. There is a strong tendency towards more fuel efficient vehicles. The airport, fishing and reef fleet heavily influence volumes and recent declines in the fishing fleet, relatively static tourism figures and more fuel efficient aircraft and vessels have also contributed to a tendency for volumes to decline in trend terms.

New farming practices are leading to a tendency for fertiliser imports to also see a trend decline. Recent very high fertiliser prices have also been suppressing fertiliser demand.

While the trend in these commodities seems likely to be static and mildly declining, surges could occur in the future, especially when underlying economic conditions for tourism improve.

In contrast to the bulk commodities, the trend for general cargoes is upwards reflecting increasing demand in the Torres Strait (as incomes rise) and especially in the mining centres in the Peninsula and Papua Indonesia. Freeport Indonesia indicates their cargoes out of Cairns have risen in recent years to a value of about $300m a year from less than $200m a decade ago.

Figures for Mourilyan also reflect the static trendline for sugar and molasses, but with year to year fluctuations.

Port statistics for Thursday I reflect a gently rising trend that would be consistent with the steady population and income growth taking place in that area.

Figures for Weipa reflect the expansion that has taken place there in recent years as mine output has been expanded.

Figures for Karumba indicate zinc exports are at a plateau, and indicate the fall off in the live cattle trade. This year’s figures will reflect the loss of general cargo services to Weipa.
5.2.2 Future Port Cargo Trends

Inquiries in cargo producing industries overall indicate the following potential demand for containerised cargo and non-containerised cargo. There was a general expectation that the volume of general cargo through Cairns and some of the region’s ports would rise very strongly over the next ten years of both bulk commodities and general cargo. Industry views varied but by and large, they ranged from increases over the next decade of between two-thirds to a doubling and even possibly a tripling.

Current concerns to cut greenhouse gas emissions were seen as a positive for shipping worldwide. Shipping emissions are believed to be lower on a tonne kilometre basis than road transport and coastal shipping represented an opportunity ‘to get trucks off the roads’. This view has been reflected in recent reports at Commonwealth level (see report, “Rebuilding Australia’s Coastal Shipping Industry”. See Appendix 4, List of References).

The following looks at Cairns and Mourilyan jointly and then the other ports.

Cairns and Mourilyan

Container Trade General

It is very clear from statistics and reports that the trend in general cargo is towards container trade. The following table gives growth in numbers of containers handled by major ports over the 10 years, 1995/96 to 2005/06.

<table>
<thead>
<tr>
<th>Number</th>
<th>1995/96</th>
<th>2005/06</th>
<th>Growth 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melbourne</td>
<td>923,142</td>
<td>1,929,925</td>
<td>109%</td>
</tr>
<tr>
<td>Sydney</td>
<td>684,714</td>
<td>1,445,465</td>
<td>111%</td>
</tr>
<tr>
<td>Brisbane</td>
<td>249,439</td>
<td>766,278</td>
<td>207%</td>
</tr>
<tr>
<td>Fremantle</td>
<td>202,680</td>
<td>455,428</td>
<td>125%</td>
</tr>
<tr>
<td>Adelaide</td>
<td>69,355</td>
<td>189,391</td>
<td>173%</td>
</tr>
<tr>
<td>Total 5 Ports</td>
<td>2,129,330</td>
<td>4,786,487</td>
<td>124%</td>
</tr>
</tbody>
</table>

Av Annual Gwth: 8.5% pa.

It can be seen that average annual growth is 8.5% pa. with growth through Brisbane leading.

Figures for Brisbane, Cairns and Townsville over the 4 years, 2003 to 2007, give the following pattern.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2007</th>
<th>Growth 4 years</th>
<th>Av Annual Gwth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brisbane</td>
<td>570,256</td>
<td>875,069</td>
<td>53%</td>
<td>11% pa</td>
</tr>
<tr>
<td>Townsville</td>
<td>17,770</td>
<td>19,773</td>
<td>11%</td>
<td>2.5% pa</td>
</tr>
<tr>
<td>Cairns</td>
<td>14,075</td>
<td>18,263</td>
<td>30%</td>
<td>7% pa</td>
</tr>
</tbody>
</table>

The indications are that container movements through Cairns have been growing at close to the national average, but less than Brisbane. Townsville has been losing market share in Queensland to Brisbane.

The indications are that increasing volumes of cargo will be shipped via containers as some cargoes previously shipped in bulk are shipped in containers (examples given have been coal, grain, and salt).

Inquiries about potential cargoes to be shipped from the region indicated a likelihood that some minerals would be shipped in ‘bulka bags’ in containers rather than in bulk.

The indications are there is likely to be an increased proportion of 40-tonne containers handled.
5.2.3 Container Cargo Coastal Shipping Northwards

As has been identified in Sections 3.1.2/3.2.2, Cairns is already a significant container port in Queensland terms.

Volumes through Cairns seem set to continue expanding especially under the influence of expanding mining activity in the Upper Peninsula/Weipa area where very major increases in mining production are being planned by Rio Tinto Aluminium and through new mining operations of Cape Alumina and Chalco (Aurukun) as well as expanded operations of kaolin mining and possibly mineral sands. (See later Section Weipa and Western Cape Ports.) (Note: Recent global economic events could see a hiatus of a number of years.)

Increasing Navy operations in the Torres Strait have been requiring increased fuel and supplies. Government infrastructure spending in the Torres Strait is also a factor.

While northbound cargoes to Torres and Western Cape ports have been growing, the trend has been to use larger ships and fewer services. In recent years, the number of ships has fallen from 5 northwards ex Cairns plus the Weipa service out of Karumba to 3 out of Cairns, 2 Seaswift and 1 Perkins.

The trend towards larger vessels is driven by easier crewing and fuel efficiencies. Increases in fuel and also steel prices have been mentioned as affecting the competitiveness of the sector.

General cargo shipping has been re-established to Gove (which is now owned by Rio Tinto). Services ex Cairns were lost to Darwin in the early 1990’s.

Freeport’s Indonesia trade seems secure. The Northern Territory Government has been courting the company to ship ex Darwin. However, the port of Darwin is west of the mine. Supply to the mine is out of the nearest Australian metropolitan centres (Sydney and Brisbane) via Cairns is much more efficient than a route via Adelaide and Darwin.

There could be prospects of the major projects in Papua New Guinea, especially the two giant LNG plants to be established near Port Moresby at a cost of about $13m, leading to the reestablishment of shipping services out of Cairns.

5.2.4 Containerised Cargo Coastal Shipping Southwards

Coastal containerised shipping could also be boosted by moves from Growcom on behalf of the banana industry to investigate feasibility of shipping bananas to southern markets by sea as opposed to them being transported by road and to a lesser extent by rail.

Discussions have been initiated between Growcom and the coastal shipping companies to explore possibilities. The volumes to be shipped are large. Total output is over 250,000 tonnes a year and the market stable. Initial target would be the Brisbane market. Current road costs can be as low as $1.80 per carton.

There is a critical factor in establishing feasibility that relates to quality. It is believed that bananas shipped by sea will arrive in a much better quality condition than those road transported and attract a price premium. Trials need to be conducted to test this.

It is also believed that current pallet sizes may not be ideal for standard shipping containers. If the industry can adapt to coastal shipping, it will put it in a position to potentially exploit overseas markets in the future should suitable economic conditions apply. It is believed that there could be an opportunity to supply the Darwin market using shipping links via Weipa and Gove.

There is a question of backloading from the south. It is believed highly likely that if shipping bananas is viable on the south bound leg, backloading general cargo will be viable on the north bound leg.
If transport of bananas is viable, other horticultural crops from the area that could be potential cargoes are as follows.

**Mangoes**: There is difficulty sourcing trucks in sufficient volume during the Christmas holiday period when harvesting is in full swing. Crops are mainly December through to about February.

**Pineapples**: Growers in South East Queensland were recently informed that canneries were reducing the quantities of pineapples bought this season. This announcement was expected to result in more pineapples entering the fresh fruit market. Far North Queensland has one major pineapple grower with another international company potentially entering production. Peak season is October to January.

**Potatoes**: The Atherton Tablelands is a major Australian potato growing area producing approximately 50,000 tonnes of potatoes each year from about 60 growers. Approximately 40,000 tonnes is harvested in the period August to November. Pre 1980’s, potatoes were transported south on the ANL service.

**Pawpaws**: Have a year-round season.

**Avocados**: Season February to July.

**Pumpkins and Watermelons**: Production is seasonal and timed to be on the market early. Southern supplies become available later in the summer. Tableland production is substantial.

**Other possibilities**: Other possibilities include lychees and citrus.

There is a question of which port might be used. Mourilyan seaport is close to the main banana producing area but is not currently well geared for handling containers. Cairns has existing facilities that handle containers and would be better placed to handle growing volumes of bananas from the Babinda, Douglas, Tablelands and Cooktown districts. Cairns would be well placed to handle other crops like mangoes, pineapples, potatoes, avocados, etc. Most north bound container cargo would be destined for Cairns.

### 5.2.5 Containerised Cargo Overseas

A number of other potential containerised cargoes have been identified that might possibly be shipped overseas ex Cairns if:

- Shipping can be attracted servicing suitable markets, eg. New Zealand and Asian ports.
- The services are fast enough for this type of product.
- Support facilities like irradiation are in place.
- Self loading container ships are available.

The following lists some potential cargoes mentioned.

**Primary Products**

**Exports**: Melons, Bananas (NZ, Eco), Avocados, Lychees, Potatoes, Pineapples, Mangoes, Beef, Hides and Skins, Low G Sugar, Seafood (frozen prawns).

**Imports**: Cocoa beans from PNG.

Some of these products have limited shelf life and voyage time will be important. Establishment of an irradiation facility could be necessary for some.

**Minerals**

Bulka bags containerised – Vital Minerals, Queensland Ores and Icon Resources, Tungsten concentrate - (Vital Minerals 4,000 mt pa, Icon 1,000 mt pa, Queensland Ores say 2000 mt pa, Total about 6 – 7,000 tonnes pa.) (Note these figures were given prior to the October 2008 collapse of commodity prices.)
For some markets, the balance of advantage would be in shipping via Townsville or Brisbane in the short to medium term. The question of future Cairns and Mourilyan port container handling facilities is further addressed in Section 6 Issues and Needs.

General cargo services developed out of Townsville represents an opportunity to increase exports from the region for containerised cargo. The following gives details of a number of operations.

**Hai Win Shipping** – Operating two ships between Townsville and China with some calls to Darwin. 
Schedules result in a service about every two weeks, mainly to the Chinese port of Shanghai plus less regularly to other ports of Kaoh Siung, Qindao and others.
Ships are 120m with 6.5m draft but gearless. Minimum shipment to call is 50 – 100 containers.
They are concentrating heavily on mining equipment but also trying to get general cargo (eg. furniture) from North Queensland to Korea and China and possibly export of hay in 40ft containers.

**Swire Shipping** – Have services from southern ports to Singapore, Thailand, Indonesia and Malaysia who call once a month at Townsville, but on demand and not so regular. 
The ship has limited capacity once it gets to Townsville.

**Austral Asia** – Offer services from Australian ports to north Asian ports on an 18-day cycle that call at Townsville for Xstrata.

**Kyowa Shipping** – Have shipping services between Townsville and Japan.

### 5.2.6 Non-Containerised Cargo – Cairns & Mourilyan

Non-containerised cargo possibilities for Cairns and/or Mourilyan seaports are as follows.

**Fuels**

Bulk fuels is likely to remain the major import cargo for Cairns seaport indefinitely into the future. Any upsurge of tourism development including airport activity as a result of a lower Australian dollar and lifting of air capacity constraints could see a growth in volumes being imported.

Existence of an oil refinery at Port Moresby might possibly see a change in origin. The LNG plants to be built near Port Moresby will bring LNG as a fuel source closer to hand.

There are some threats developing to current imports of LPG (see Section 6 Issues and Needs).

Green house gas concerns seem likely to lead to pressure for more fuel efficient vehicles including aircraft and vessels.

It is possible that locally grown biofuels (especially ethanol), will replace some imports in the future. It is possible that biofuels (the cheapest tends to be Palm Oil) could be imported in the future.

**Fertilisers**

Rising cost of fertilisers has been a major concern and a factor suppressing growth in demand. However, recent changes in economic settings may change this trend.

Imports are mainly of urea. Also imported are potash, ammonium nitrate, nitrophoska and sulphate of potash.

There may be a change in origin of imports with some of the urea from overseas sources being replaced by imports from Brisbane in 5 – 6,000 tonne ships. This would not change the overall volume of cargo handled.
Cement
Local industry sources have suggested that cement transport to the region from Brisbane could usefully be changed over to coastal shipping. There is a supply monopoly with the cement coming in bulk by rail. Failures of supply have seen cement deliveries rationed causing substantial disruption to the construction sector. It is believed that alternative competitor supply by ship is being looked at.

Live Cattle
The low dollar is leading to a resurgence of interest in using Mourilyan for export to markets in SE Asia and Pacific Islands. A change in legislation governing cattle road transport operations could be favourable to using closer ports like Mourilyan rather than trucking through to Darwin. Karumba is believed to have depth restrictions. The owners of Sugarbag Station near Mt Garnet have built yards to hold 56,000 head, has supplementary yards to hold 8,000 head near Daradgee, and proposes to build yards to hold 10,000 head 4km from Mourilyan port.

Forest Products
Major pine plantations are maturing in the Cardwell area and at Black Mountain near Kuranda. Apart from sawn logs, woodchips are produced from thinnings and low grade timber. One company successfully trialled a shipment of 5,000 tonnes of woodchip and was planning to ship via Mourilyan. However, a dispute has developed with Queensland Forestry about access to the product that has held up any further action. Mourilyan is the closest suitable port to the major Cardwell plantings.

Minerals

Sulphur Imports
Metallica Minerals have indicated a need to import 200,000 mt pa. of elemental sulphur for their proposed nickel mine south of Mt Garnet. Capital costing and feasibility study has been completed and discussions held with Ports Corp Qld re using Mourilyan. The sulphur would be drawn in bulk from Canada or the Middle East at a rate of 20,000 tonnes per month commencing Q1 2011. Proposal is to construct hoppers, conveyors and storage facilities at Mourilyan and truck via the Palmerston Highway to Mt Garnet.

Iron Ore
Hillgrove Resources iron ore prospect south of Almaden (reserves so far estimated at 0.5 to 2 million tonnes) is 120 – 150 km from Mourilyan but also close to the Chillagoe railway line. The company was looking at shipping through Mourilyan. Depending on resource, it indicated it could commence in Q1 2011.

Kagara
Kagara are currently trucking concentrate for their Mt Garnet operation to Townsville to the zinc refinery located there. Concentrates are copper, lead and zinc. The Mungana operation is only 1km from the railway and Kagara would like to send ore out by rail. They are very pessimistic about shipping either via Cairns or Mourilyan. It was reported that Railways are not helpful. The company also believes there is undue concern about a spillage through the Wet Tropics World Heritage area. They note that the ports of Cairns and Mourilyan are not geared to handle the products.

Mt Mulligan Coal (Mantle Mining)
Mt Mulligan is in very early stages of investigation due to lack of mining analysis data. Should the operation be a coal bed methane/coal operation (rather than coal only) then the time frame for commencement would be earlier. Similarly, the viability of the mining operation will depend on whether the coal is thermal coal or metallurgical coal. Metallurgical coal is three times the value of thermal coal. Port options canvassed have been between Townsville and Cape Melville. Coal is ideally transported in Cape Size vessels (80 – 100,000 mt). Coal can be exported in Handimax vessels (40 – 50 000 mt) requiring less draft.
Silica
There are major high grade silica sand deposits on the southern side of Mourilyan Harbour. Koolgarra Mining have bought out previous tenement holders Califer Industrial Minerals and lodged a mining lease operation. There is a potential to have a major impact on the port’s operations.

Einasleigh Deposits
There are copper and high grade silica prospects near Einasleigh that are considerably closer to Mourilyan than Townsville that could swing to go through Mourilyan if that port was better set up to handle minerals. Both are also next to the railway line from Forsayth to Cairns.

5.2.7 Other Ports

Cooktown District
While Cape Flattery seems likely to continue on a steady path, the existence of a coal basin behind Cooktown in the Laura Basin could result in need for port development in that area in future. Part of the coal deposits are right next to the sea at Bathurst Head.

Waratah Coal
The company is currently conducting wildcat exploration for coal in two locations near Cooktown. Should the coal be classified as coking coal the focus will be on export markets. It is understood that Cape Flattery currently accommodates Panamax vessels (60-70,000 mt). Capesize vessels require draft of 19m. Port options are open.

Torres Strait
Torres Shire Council has suggested that Wednesday Island right next to the main shipping channel might be established as a container entrepot port linking shipping through the straits between Pacific countries, the Americas and South East Asia, with a route from south eastern Australia and New Zealand.

A 2006/07 study into developing Daru Island across the border in Papua New Guinea as a shipping port of this nature and outlet for minerals and gas from Papua New Guinea Western Province was not positive.

A continuation of current cargo shipping patterns seems likely to continue to Torres Strait ports and landings and to Red Island Point (Seisia), perhaps with steadily increasing one-way carriage of tourist vehicles.

Weipa and Western Cape Ports
It is likely that there will be a need for and opportunities for a major increase in port facilities in the Western Cape area over the next 10 years at a number of levels – in bulk mineral exports, general cargo coastal trade, small shipping berthing, maintenance facilities, marina development and attention to bio security aspects.

Bulk Export Cargo
This currently takes place in the region at two points:
- Rio Tinto’s bulk bauxite export facilities at Lorim Point, Weipa;
- Skardon River’s kaolin exports in smaller barge type vessels ex Skardon River; although the recent drop in mineral prices including aluminium may delay or even result in cancellation of some projects.

Rio Tinto have upgraded their production in recent years and increased their loading facilities at Lorim Point to be able to export at a rate of 19 million tonnes pa. (previously 11 million tonnes).

Most Rio Tinto bauxite in the past has come from the immediate vicinity of Weipa and from the north across the Mission River at Andoom.

Rio Tinto have indicated that they are proposing to increase production from areas to the south of Weipa and establish a beneficiation plant in that area. They are studying a proposal to build a new port near Boyd Bay initially indicating a proposed shipment rate of 35 million tonnes per annum, but more recently of over 50 million tonnes.
Chalco have advised they are proposing to mine bauxite from deposits south of Weipa and ship to an alumina refinery to be established at Bowen at a rate of about 7 – 8 million tonnes per annum.

There is a question as to whether they would ship through the proposed Rio Tinto port at Boyd Bay or establish their own.

Cape Alumina have indicated they are proposing to mine bauxite from deposits approximately 45km north east of Weipa and ship at a rate of 7 – 8 million tonnes per annum via a port to be constructed at Port Musgrave (near old Mapoon). This is not proposed to be a deep water port but to use a system of the type currently being used at Karumba for Century Zinc and at McArthur River where ore is loaded on large barge type vessels that transport the product to bulk carriers lying off shore in deep water. They are proposing to be in production by 2012.

These mining and bulk export operations will result in an expansion of other marine operations in the area.

In the background is continuing exploration for gas in the Bamaga Basin offshore to the wet of the northern end of the Peninsula.

General Cargo

Weipa

General cargo comes into Weipa via the Humbug Wharf currently via weekly services ex Cairns by Perkins Shipping (Gulf Freighters) and Seawifft. These operations are likely to continue and expand with the general growth of population and industry in the area. The facilities at Humbug Wharf seem adequate, but can only be used by approved transport operators such as Seawifft, Perkins and Rio Tinto Alcan. Humbug Wharf is serviced by truck mounted cranes owned by private contractors. Humbug Wharf is not accessible to the public. All other marine activity such as customs, navy, fishing and pleasure craft utilize Evans Landing. Evans Landing is also the only fuel wharf for Weipa. Congestion at Evans Landing is a constant problem due to government vessels occupying the berth for days at a time. Part of the wharf is also reported to be in poor condition with reinforcing protruding through the concrete.

Aurukun

Chalco proposes to import their general cargo needs direct into the ramp at Aurukun. However, there is a question as to whether this will be adequate, especially during the construction period.

Port Musgrave

Cape Alumina are proposing to import their general cargo via their port facilities at Port Musgrave.

Skardon River

Skardon River will continue general cargo imports via their facilities at Skardon River.

Embley River Ferry & Road Development

Rio Tinto Alcan’s expansion of bauxite mining to the south of Weipa (the South of the Embley Project), will pose a transport problem from Weipa to the proposed new mine site.

The proposed South of the Embley Project is 45km south of Weipa and 50km north of Aurukun. The Chalco bauxite deposit south of Weipa is 85km from north to south and 20 to 30km from east to west and is adjacent to the South of the Embley Project. The current road from Weipa to Aurukun is a circuitous route to the east. It is proposed to establish a ferry service across the Embley River at Hey Point with the Rio Tinto Alcan workforce commuting daily to the South of the Embley Project. The main infrastructure for the South of the Embley Project will be at Boyd Point (45km south of Weipa). This would also be a direct route from Weipa to Aurukun.
Karumba
Century Zinc have advised that if no further reserves are identified, they will cease production in 2015.

Legend International Holdings have looked at shipping phosphate via pipeline to Karumba but are currently favouring shipping by rail to Townsville. Phosphate Australia are also looking at possibly export of phosphate via a Gulf port with Burketown under consideration.

Resumption of substantial live cattle exports could be encouraged by the recent fall in the Australian dollar.

It seems that for the time being, general cargo shipments will be to supplying Mornington and Sweers Island.

Construction activity associated with mining development seems likely to see increased demand for cargo charters.
5.3 **Fishing Industry**

Prospects for the fishing industry vary. However, the indications are that it will continue the general process of fisheries for given species growing initially and then being stabilised or reduced for environmental reasons, but over time, for the species fished to diversify.

Overall, the indications are that the fishing fleet operating in the region will not grow but that more vessels might locate in the region to serve more distant fisheries.

Availability of workforce for the industry and for skilled tradesmen for the marine support activities has been heavily impacted by the requirements of the mining industry. Cairns with its larger overall workforce, larger marine industries support sector and lesser impacts from mining activity within the region, has been attracting vessels to base in Cairns, eg. the recent transfer of Austral Fisheries’ 10 vessels operating in the northern prawn fishery from Darwin to Cairns. Any reduction in mining employment may reduce the pressure on some of the other centres.

**Prawning**

The northern prawn fishery contracted sharply after 2001/02 but seems to have stabilised in recent years.

| Table #40: Northern Prawn Fishery Output, 2000/2001 to 2006/07 |
|-----------------------------|-------------------------|
| **Year** | **Catch (tonnes)** | **Estimated Value** |
| 2000/01 | 9,270 | $164 m |
| 2001/02 | 7,509 | $135 m |
| 2002/03 | 5,689 | $83 m |
| 2003/04 | 6,176 | $74 m |
| 2004/05 | 5,024 | $65 m |
| 2005/06 | 5,277 | $73 m |
| 2006/07 | 4,864 | $64 m |

The east coast prawn fishery was greatly reduced from 2004 on by the introduction of the GBRMPA Green Zones.

A further major contraction that was imminent in mid-2008 due to the very high Australian dollar and very high fuel prices seems to have been averted with the drop in the dollar and fuel prices. There were claims that there would be no industry left in three years time. The benefit of the drop in the Australian dollar has however been offset by a recent drop in prawn prices from $23.50 to $19.00 a kilo. Imported prawns are taking a larger share of the market.

Very heavy regulation and changing regulatory requirements are having an effect on willingness to continue in the industry (see further discussion, Section 6 Issues and Needs).

**Live Fish Trade**

It is expected that the live fish trade ex Cairns will continue to grow. The livestock shipped is high quality. The drop in the Australian dollar is a positive although fluctuating prices have been a worry.

Constraints in the Cairns area are leading to collection spreading further north and south with Cooktown and Bowen becoming major catching areas. Lack of road development affects catching spreading further north than Cooktown.

Over zealous government regulation is seen as a threat (see further comment, Section 6 Issues and Needs).

There is also substantial possibilities of developing commercial farming of tropical reef fish species.
Crayfish
Northern tropical rock lobster aquaculture looks like becoming feasible in the not too distant future.

Beche-de-Mer
Quotas are stable and the fishery well managed. Demand is reported to be strong.

Aquarium Fish
The Cairns region dominates this activity in Queensland.

The GBRMPA RAP initiative has resulted in a need to travel further to obtain species and appears to have consolidated the sector into fewer larger operators. The RAP has imposed higher costs on operators. It is expected that the sector will grow.

There is a steadily growing market with a growing interest in a wider product range. Technology in a new aquarium and ease of keeping marine species is also a positive. The area has a diversity of product and sustainable harvesting regimes.

However, it is reliant on air transport and cheap imports are a threat especially from countries without Australia’s high environmental controls. However, there is an expectation that conditions for import of aquarium fish will be becoming stricter in many countries to deny imports of inappropriately caught species.

5.4 TOURISM AND RECREATIONAL VESSELS

The high dollar, high fuel surcharges on airfares and lack of aircraft capacity have combined in the last three years to restrict the growth of tourism into the Cairns area with a resulting slow down of reef visitation. Average annual growth 2007 on 2001 was 1.7% pa., a total increase of 10.6% (see Chart). (Note: It was reported that these figures do not include Green Island visitation.)

The growth of 10.6% over the six-year period 2001 to 2007 is lower than general growth in holiday visitor numbers over the period that has been more like 20% to 30% indicating a lower propensity to visit the reef.

With all the above factors changing in recent months, the industry’s domestic and overseas competitiveness has been restored. However, the degree to which the global economic slow down will affect holiday travel in general in source markets is not clear at this stage.

Given tourism patterns of the past, it seems likely that further surges in visitor numbers will take place in the future.
However, the reef fleet as it stands at present has plenty of capacity to carry additional passengers and substantial growth could be accommodated before there was a need to increase the number of vessels.

The region’s major strength in marine tourism is seen to be:

- The existence of the Great Barrier Reef as a world icon and better protected than most reefs in the world.
- The diversity of tourism product it has to offer (two world heritage areas side by side).
- High quality of its tourism product.
- Safety and political stability.
- Cairns people – Australians.
- The ample capacity of the reef fleet.
- All-year round climate for reef access.

However, visitor numbers are impacted by exchange rates and economic conditions in source markets, airline access, affordability of restaurants and accommodation compared to many other areas. Costs of workforce are high. A reef visit tends to be a once in a lifetime experience and many people have seen the reef.

Reef visitation still remains weather susceptible.

Cairns is also a long way from major population centres.

Reef visitation is especially attractive to international visitors.

Most visitors in the past have accessed the reef from Cairns or Port Douglas. There appears to be substantial interest developing in investing in tourism facilities in the Cassowary Coast and it seems likely that there will be growth in that area in the future.

The other area of expected significant growth (especially for recreational fishing), is the Torres Strait, Northern Peninsula area and Weipa. These areas are becoming more attractive as larger aircraft are put on the routes with concessional fares available.

There is an expectation that superyacht and cruising yacht numbers around the world will continue to grow strongly and that demand for serviced marinas for tourism and recreational vessels will continue to grow strongly.

Cruise ship visits are expected to continue growing. Although Captain Cook Cruises have withdrawn as a locally based cruise company, Coral Princess with two smaller vessels carrying 50 and 44 pax respectively seems to be operating well.

In 2008, some 31 major cruise ships visited carrying 13,000 passengers. Another 12 stood off Yorkey’s Knob and ferried passengers ashore and to the reef. Proposals have been announced for a $11.2m upgrading of the cruise passenger terminal.

Indications were received that investigations were underway into the feasibility of home-portal of a major cruise ship at Cairns of over 70,000 tonnes gross weight.

Indications were also received of a possible new cruise ship route calling at Weipa, Thursday Island, Lizard Island and Cairns that would particularly look to cater for German visitors.

Numbers of recreational vessels registered in the Cairns Regional Council and Cassowary Cost Regional Council areas continue to grow.
<table>
<thead>
<tr>
<th>Year</th>
<th>Total Value</th>
<th>Annual Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>11,492</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>12,190</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>13,155</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>14,036</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>14,435</td>
<td></td>
</tr>
</tbody>
</table>

Note: Includes motor boats, sailboats and jetskis.
Source: GBRMPA form Q’ld Transport.

Average annual growth 2002 to 2008 was 3.9% per annum.

5.5 **DEFENCE & GOVERNMENT**

The research did not identify any major changes in the likely Naval and Government fleet in the area. However, the Air-warfare Defence AWD Destroyer contract process is leading to an opportunity for local firms to contract to build modules for shipment to Adelaide for assembly.

Potential value of work and employment over 5 years is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Annual Value</th>
<th>Total Value</th>
<th>Annual Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Module</td>
<td>$28 m</td>
<td>$136 m</td>
<td>160</td>
</tr>
<tr>
<td>Two Modules</td>
<td>$55 m</td>
<td>$275 m</td>
<td>250</td>
</tr>
</tbody>
</table>

This is looked at further in Section 6.3.

Apart from the Australian Navy, other naval forces in the Pacific represent a potential market for the region’s marine maintenance facilities.
5.6 **MARITIME SUPPORT ACTIVITIES**

5.6.1 **Slipways**

A number of factors have been negative to slipway business in Cairns in the last few years.

The first has been the decline in the fishing fleet. The second has been the stagnant level of the reef fleet. A third impact has been the high dollar on Cairns’ competitive position in the wider north Australia/nearby Asia Pacific market vis-a-vis other slipway facilities.

However, there has been a positive factor as commented upon in Section 5.3 in relation to the fishing fleet.

A major growth in mining activity in the north has greatly increased the demand for skilled workforce putting pressure on the maritime sector’s skilled workforce needs. The Cairns region with its bigger overall workforce but comparatively lower mining activity has been less affected. If anything, this has increased Cairns’ dominance in maritime industry services in the north leading to fishing vessels locating in Cairns to service more distant fisheries. Darwin has been particularly impacted. It was claimed that the Northern Territory government was aligned with the gas industry and that slipping charges were so high in Darwin compared with Cairns that it almost paid Darwin boats to steam all the way to Cairns and back for refits. If they were operating east of Darwin, it was cheaper to base in Cairns.

However, there is also some evidence that slipping business has been concentrating in Cairns at the expense of smaller facilities in places like Karumba, Thursday I and Innisfail. This is contrary to some opposite trends for actual fishing to decentralise away from Cairns leaving a shortfall in facilities in the smaller ports (see further comments, Section 6.2).

The growth of mining has had a further benefit for some firms operating in the sector. It has allowed some of them to retain their skilled workforce in the face of a decline in marine business due to loss of fishing activity, by taking on some work in the mining sector.

Another positive factor has been the sector’s ability to offset losses in fishing business and stagnant reef fleet business by attracting superyacht business from distant markets.

Norship has also been able to gain nationwide business by securing the contract to service all Custom vessels from around Australia.

In attracting business, it is clear that Cairns tends to compete on scale, quality, facilities and efficiency, with shipyards in the north in Mackay, Townsville, and Darwin at the larger ship end of the market.

It competes on price with Brisbane and Auckland.

It competes on quality of workmanship and skills with facilities in Papua New Guinea and Fiji, especially in those fields other than cutting, blasting and painting, that require high levels of skills, eg. engineering, engines, electrics, and electronics.

Cairns is closer to its main North Australia/South West Pacific markets than Singapore and Philippines. The Philippines’ yards with their very low labour costs, are probably the sector’s main competitive threat.

Downward movements of the Australian dollar in the second half of 2008 have seen the Philippines’ peso appreciate from 2.5 cents to 3.2 cents Aust, ie. by about 28%.

Looking forward, the recent fall in the dollar is a major positive factor for the competitive position of the Cairns’ slipways in the wider Asia/Pacific market.
Mining development in the form of three major LNG plants to be constructed (two near Port Moresby and one near Darwin or Kimberley Coast), seems likely to continue and indeed accelerate the workforce pressure on yards in those cities.

The fishing industry is still shaken and uncertain about its future, but hopefully falls in fuel costs and the Australian dollar have stabilised the situation. The transfer of the 10 trawlers from Darwin is a major boost.

Hopefully, the strengthened competitive position of the tourist industry will see Reef Fleet operations expand again in the future and superyacht business is expected to continue expanding.

Mining expansion particularly at Weipa seems likely to see an expansion of the trading fleet activity. Superyacht and cruising yacht activity seem set to continue long-term growth.

Thus overall, the prospects for the sector are looking quite good at this point in time.

Major investment in upgraded facilities is taking place in the form of Norship raising its travel lift capacity to 400 tonnes and Tropical Reef slipways investing in increased capacity to take larger and more vessels.

Expectations of growth vary. If averaged, expectations of growth probably stand at an increase of about a quarter over the next three or four years.

Some repositioning in naval contracts is taking place among defence contractor companies and slipways.

An interesting aspect of the demand for slipways relates to shipping voyage patterns. To save money, ships will tend to go to slipways located where their paying voyages will take them. For instance, Papua New Guinea based Consort vessels engaged in trade voyages to Townsville are slipped in Cairns. Cairns based vessels will tend to slip in Cairns. However, if they are working on charters in other areas, eg. South East Asia, they may slip there, rather than incur the cost of steaming back to Cairns with no paying cargo.

There is thus a strong advantage to the slipways in attracting vessels to Cairns or nearby ports on paid trading voyages.

5.6.2 Services Exports

Significant outside sales of Cairns based marine service firms have developed in fields like marine surveying, marine electrics, and marine electronics including sonar, not just to other regions in the north, but to the Pacific area.

However, at times, this is affected by countries legislating to use their own local surveyors.

5.6.3 Education & Training

There is every likelihood that requirements in the sector for formal education and training will increase over the foreseeable future, providing an opportunity for expansion of the GBRI Marine College and others.

It is expected that there will be an opportunity for the College to progressively expand its influence throughout its potential market area across the north and adjacent Asia/Pacific island areas and to expand its offerings (eg. in association with the Australian Maritime College, Launceston and the Navy).
6. **ISSUES AND NEEDS**

6.1 **GENERAL**

The following seeks to record issues and needs raised in the study, including those seen as weaknesses and threats and where further actions may need to be taken by various groups including Government.

It should be noted that during the course of the study, three major economic threats to the sector receded – the high level of the Australian dollar, the very high cost of fuel, and for the maintenance and repair section, pressures on skilled workforce coming from a very buoyant mining sector.

As recorded in Section 5.1, one very important trend that raises a number of issues for the region’s ports and especially for the Cairns seaport, is the increasing size of ships commonly used in the various marine industry segments.

6.2 **VESSEL OPERATIONS**

6.2.1 **Trading and Work Vessels**

**Seaport Facilities for Shipping**

**Cairns Barge Facilities**

The major immediate need identified in Cairns was the need for an improved common user barge ramp.

Two special markets were identified:

- Roll-on/roll-off for heavy mining equipment.
- Potential need to transport heavy sections of ships if NQEA succeed in winning contracts to build sections of the new Air-warfare Destroyers being built in Adelaide.

Immediate need was seen to handle vessels up to 1800 tonnes, up to 3 – 5,000 tonnes in 5 years and in the longer-term, up to 10,000 tonnes.

There does not seem to be a fixed view on location. At present, use is being made of the “Duck Pond” area along Fearnley Street for barge loading. The land side is highly suitable. However, there are seaward side constraints. Also, the potential need to use the “Duck Pond” area for fishing fleet and other work areas for superyachts and cruising yachts and the restricted entrance for larger vessels is a problem.

The opinion was expressed that it needed to be located in the existing cargo port area, and location between No. 6 and 7 wharfs was suggested.

**Port Cranes – Cairns**

Another significant issue is wharf-side crane facilities.

The decommissioning of the crane on No. 6 wharf leaves the port without dockside crane capacity.
This compares with the situation in other major regional ports:

**Townsville**
- 2 x Portainer cranes.
- 1 x Slewing Luffing crane.
- 1 x Ore unloading crane.
- Operated from 3 berths (although information says only Berths 3/10).

**Mackay**
- None, mainly shiploaders.

**Gladstone**
- Patrick Stevedores currently have a mobile crane available on this wharf (Auckland Point No. 4 Wharf). There are no fixed cranes, however long-term plans include the provision of a wharf crane dependent on demand.
- Containers handled at 2 berths.

**Rockhampton**
- Fixed leg crane (25 tonne).
- Containers handled at 1 berth.

This means that ships using the port need to be self loading or mobile cranes need to be brought in.

Port facilities at the other end of the north bound coastal shipping routes (Torres, Western Cape, NT, Freeport) mean that use of self loading vessels is necessary.

Even if there were sufficient cargoes for a container ship to call, lack of crane facilities means that it would need to be self loading. Cairns Ports staff believe that there are sufficient self loading ships around that if containerised cargoes were available in sufficient quantity, lack of crane capacity would not be a problem. No. 7 Wharf has been built to a standard where a travelling crane could be installed.

The question is:

a) Would existence of wharf cranage result in cost cutting efficiencies in loading and unloading coastal shipping?

b) The extent to which overseas cargoes might become available locally that would be of a volume and type to be more cost efficiently handled through Cairns seaport rather than being transported south to Townsville or Brisbane and in sufficient volume to justify investment in port cranage.

**Container Space**
The amount of space for containers at Cairns seaport was raised as an issue. This is a priority port need in the area of 7 and 8 Wharves. Containers are coming off Hartley Street and there would be problems if traffic increased. One suggestion was to reduce sugar storage (for the 12 sugar ships a year) and replace with container space. Other suggestions/possibilities include increasing the space in the vicinity of No. 7 and 8 wharfs by relocating the port workshops or gaining access to Incitec land.

**Bulk Cargoes**
Cairns seaport is currently very constrained in being able to handle additional bulk cargoes. The main constraint is the availability of storage areas for bulk cargoes. Current port plans provide that if any major bulk cargo becomes available, it could only be handled through opening up the northern end of Admiralty Island. This would be expensive in that bridging would be required, new wharves would need to be developed and there would be major environmental issues. This would be practical only if a very large, sustained resource became available.

However, historically, bulk cargoes becoming available from the Cairns hinterland, have been smaller and of shorter duration. It is a deficiency of current arrangements that such cargoes cannot be handled.

It is suggested that the land and buildings currently reserved for fertiliser handling are in excess of requirements and arrangements might be made that would allow part of this area to be used for other bulk commodities provided suitable dust control arrangements were in place.
Sugar
Channel depths restrict the size of vessels that can come into Cairns which at times need to go to other ports to top up cargoes.

Petroleum Products – Cairns
Tankers can only come in on a flood tide and this adds to operating costs. It has been suggested that a further access point is needed at an extended fuel wharf.

Fears were expressed about the quality of the facilities and heightened risk of accidental explosions. The terminal is located next to the Naval Base.

Fertilisers
Port depth constraints were also mentioned as a problem. Vessel size is restricted. Ships have to go to other ports to unload so they can reduce their draft to get into Cairns. There is seen to be a need to dredge to allow larger ships to call.

Channel/Port Depths
Limitations of Cairns seaport’s channel depth and width were seen as an issue for each of the bulk cargoes of sugar, fertiliser and petroleum products. As noted in Section 8.2.3, it was also seen as a constraint to the development of the cruise shipping trade. It is not the role of this report to come to any conclusions about the balance of costs and benefits of deepening the channel. It is important however, that it is recorded as a significant issue for the port given general trends towards larger ships being used. Impacts on costs of fuel and fertilisers have an influence on the cost structure of the wider regional economy.

Associated Infrastructure
Inquiries about potential cargoes that might demand seaport facilities highlighted the poverty of the region’s rail and road infrastructure for transporting bulk commodities.

Not only is the rail network ex Cairns to the west limited, the attitude of Queensland Rail to possibilities of using it was reported to be negative.

The failure to upgrade the Kuranda Range Road to take freight efficient vehicles, even to B-Double standard has major implications for Cairns seaport as an efficient conduit for inward movement and distribution of fuels and fertilisers, but also for potential outward movement of commodities.

The viability of Mourilyan as a bulk export port could be improved by expenditure to increase the Palmerston Highway’s capacity from current B-Double limits to Type 1 Road Train limits. It is believed that the section at and the crossing of the Beatrice River would need to be rebuilt.

The fact that these transport corridors pass through World Heritage areas was reported as affecting attitudes of mining companies to using Cairns and Mourilyan seaports, especially fear of consequences if a spillage took place.

Costs of Container Movements Through Brisbane
Apart from the costs of transporting containers imported via Brisbane to Cairns and their return ($2,800 per container), the distance and time factors lead to other costs. Imported containers must be returned within 10 days. However, they take 3 days to rail to Cairns and 3 days to return. Any delays in pick up, or in the transport system, can lead to substantial penalties being imposed of $50 a day (11 – 20 days), and $100 a day (20 days onwards).

Port Land Costs and Charges – Cairns
A substantial amount of comment was received about recent moves to increase lease rentals by very large amounts with some claiming it was threatening the viability of their business. Indeed, some represented increases of more than 1% of turnover that could substantially affect profitability. There was comment about moving away from unimproved values to improved values.
There were widespread claims that fishing berthage charges were the highest in Australia or very high when compared with other ports. Examination of product handling charges also seem to indicate high rates on fish products.

The payment of dividends to the State Government rather than their reinvestment in the seaport received some criticism.

**Towage Requirements – Cairns**
It needs to be recognised that towage requirements can add to costs of bringing in product. Excessive costs have a potential to result in loss of port trade. It is recommended that stakeholders be consulted with a view to minimising such costs.

**Mourilyan**
The number of potential cargoes and other uses through Mourilyan emerged from the study. There is clearly a need for forward planning to handle contingent uses. The harbour itself is limited in size along with the extent of areas around it for storage facilities. Studies need to define the extent to which it can be seen as an alternative to Cairns given the large existing investment in Cairns in port and distribution facilities for fuel and fertilisers and the need to accommodate larger cruise ships.

**Thursday Island**
There was concern expressed that PCQ was using remote ports as a ‘cash cow’. Examination of charges data (see Section 3.1.11) indicate very high charges for Thursday Island.

It is noted that a study is currently being carried out at Commonwealth level into costs of living in the Torres Strait. It is believed that this study is looking into the justification of a Commonwealth subsidy on freight to this area similar to the current subsidy scheme for freight to and from Tasmania.

**Weipa**
The major port need at Weipa is believed to be a common user barge ramp for trading vessels to unload heavy mining equipment and a solution to the congestion at the Evans Landing Wharf. Marina and travel lift needs are looked at in later sections.

**Seisia**
It was reported that no one pays for use of the wharf at Seisia, no one is looking after its upkeep and that it is deteriorating.

**Wharf Control – Gove and Weipa**
Effective control of the wharves at Weipa and at Gove by one company (Perkins) poses some difficulties for competitive services.

**Peninsula Road**
Eventual sealing of the Peninsula Developmental Road poses a long-term threat to coastal shipping services to Western Cape ports and eventually to Bamaga.

**Navigational Safety**
Given the extensive existence of coral reefs and islands in the Torres Strait and in the shallow reefs along the 1,000km of the region’s east coast, navigational safety is an issue, especially with a view to avoiding groundings and fuel and other cargo spillages.

Some 8,000 vessels a year pass through the inner route and 12,000 a year pass through the Torres Strait. Ships over 70 meters need to be piloted. A new route has recently been established, especially in the Princess Charlotte Bay area.

Offices of a new Reef Reporting System have been established in Cairns which obviously needs to become the major centre for this type of activity.

**Labour Force**
Comment was received about shortages of skilled labour, especially in a marine environment. There were comments that Cairns was seen as a transition place.
The view was expressed that Cairns had an opportunity to develop as a significant maritime education and training hub in an Australia wide and South West Pacific context. (See further Section 6.4 Education and Training.)

**Pump Out Facilities**
While pump out facilities are available in Cairns, they are not available in other ports.

### 6.2.2 Fishing

**Aquarium Fish**
The issues for aquarium fish operators have some similarities with those of the Live Fish Trade (see below). There is a strong need for more cargo space on direct overseas air flights.

This fishery has four fishery managers to deal with – EPA, DPI&F, GBRMPA and AFMA. It was reported that the amount of time required to liaise with Government Departments over the past five years starting with the Green Zones has got worse. This all reduces time spent pursuing sales, adds to costs and reduces competitiveness, especially in the face of a need to compete with cheap imports.

The view was expressed that there is a need for the environmental movement, tourism and government to accept that sustainable fisheries have a place in modern society. There is a need to work with the sector to ensure that Australian marine aquarium fish are ‘branded’ as being harvested sustainably and that governments restrict imports of those that are not harvested sustainably.

The other major issue relates to workforce training and accreditation. Difficulties are being experienced. New work health and safety regulations require certification of new divers, but training and certification providers are not in place.

**Live Fish Trade**
There are a number of issues facing this trade that need attention:

- The industry is susceptible to on-shore power supply reliability.
- More air cargo space is needed on direct flights overseas. It is a perishable cargo susceptible to ‘in transit’ delays.
- Better facilities for unloading live fish are needed in Cairns.

Overzealous and increasing government regulation without consultation is seen as a major threat, including in market areas, leading to increasing costs of paper work and delays.

**Tuna**
There are concerns that the Federal Government is talking about bringing in quotas.

**Prawning**
There is concern about the potential for the fishery to collapse if motherships withdraw. Those of Endeavour Shipping and Portsmouth Fuel have recently withdrawn from the Gulf and Torres Strait and only ones left are those of Seaswift. Costs of fuel for ships steaming to ports to refuel and drop off product are very high.

There are also concerns that further reduction in net fisheries would result in shut down of local net mending – a necessary skill for the industry to be available locally.

**Fishing Facilities - Cairns**
There were substantial complaints about costs of operating from Cairns Port compared with other ports, especially when boats are not working due to regulation.

It was widely claimed that Cairns has the most expensive fishing berthing in Australia. It was claimed that Cairns costs were astronomical at $1.20 per metre per day plus electricity costs compared with $3 - $6 per day (most without electricity charges), at ports in Victoria. It was reported there was no charge in Hobart if supply to Muirheads.
It was claimed there was a 25ft distance between the water and top of wharves at low tide to unload product.

Maintenance and dredging were deficient at the old trawler base (reputably due to EPA constraints), with boats sitting on the bottom and being damaged.

The second trawler base was built wrongly. Vessels can only get in or out on bottom or top of tide due to tidal currents in between.

Fishing boats are having to stack up to four abreast at times. Boats are having to play ‘musical chairs’. Problems occur if a crane is needed for carrying out any work on vessels not moored alongside the wharf.

There were reports of insufficient fire hoses and hydrants. It is especially of concern where vessels are stacked up 3 or 4 abreast at wharves.

It was reported there are insufficient pen spaces. This is made especially acute due to lack of dredging and a need to accommodate larger vessels. This can lead to smaller boats based year round in Cairns losing space to the bigger Gulf trawlers.

The new trawler base fingers are too narrow to allow more than one vehicle on them at a time.

Security is frequently mentioned as a problem and a card system advocated as a solution, especially at some times of the year.

**Fishermen’s Wharf – Cairns and Port Douglas**

Interest was expressed by fishing interests in Cairns in pursuing the concept of a “Fisherman’s Wharf” with associated restaurant and market facilities. Fremantle and Southport have sales off boats. It was suggested to also make it an education hub.

It was also suggested that a “Fisherman’s Wharf” type arrangement with sales direct from fishing boats would also be appropriate for Port Douglas. It was claimed product would be $6 per kg cheaper to the public and fishermen still make $2 per kg more.

**Cardwell**

There is a need for commercial facilities to unload and fuel at Cardwell. (Port Hinchinbrook Marina claimed to be not friendly to commercial fishermen.)

**Innisfail**

There is a need to upgrade the public facilities to take heavier than 2-tonne vehicles including fire vehicles (have to use a long hose at present). There is a major need for dredging.

**Mourilyan Harbour**

Mourilyan Harbour could be excellent as a fishing port. It is central but needs floating wharfage, with fuel facilities, and needs cold storage. The installation of woodchip facilities affected the wharf being used by fishermen.

**Motherships South of Cairns**

There are no motherships operating south of Cooktown.

**Competitive Facilities South**

It is claimed that the northern prawn fleet is moving south to Townsville (fisherman’s friendly wharf) and Bundaberg where there are lots of private wharfage, fish buyers and cold stores. Mackay has no cold storage.

Much of the ‘line’ fleet to the south of Cairns is at Bowen.

Refitting in Townsville was reported to be slightly cheaper.
Cooktown
Restrictions on fishing in the Cairns area mean that fleet is decentralising with a need to upgrade facilities up the coast at Cooktown and further north. Sealing of the road to Cooktown means that product can now be road freighted to Cairns and further south. Cooktown fuel is expensive however.

Cooktown is silted up and needs dredging for boats over 20 meters. There is a public wharf but it is congested. Two private wharves are used all the time. Nobody has any anchor points.

Gove
Fuel prices at Gove are very high. Mining companies are claimed to discourage fishermen.

Karumba
It was reported that at times, it is difficult to get food into Karumba due to flooding.

Weipa
No issue for trawlers, but not much wharf space.

Torres Strait
The prawning grounds are near Yorke I away from Thursday I and Horn I facilities. There were views that the withdrawal of the Portsmith Fuel mother-shipping arrangement and quota and other licence changes could result in a major contraction of the fishery.

Catch Times and Marketing
It was suggested that prawn catches were at the wrong time (March/April/May) and that more flexibility in catch times would suit the market better and reduce cold storage costs.

Training
Trawlers not operating full-time affects the ability of young trainees to achieve ‘sea time’.

Conflicts with Recreational Fishers
  East Coast – There is conflict in fisheries like Spanish Mackerel with commercial fishermen calling for a bag limit on recreational fishermen and fishing charter operators.
  Gulf – There is concern expressed by the Northern Gulf Natural Resource Management group about the impact of recreational fishers based on Karumba on fish stocks in the area.

Marketing
The biggest problem for the industry is seen to be the price of local product. It was suggested there needs to be more marketing to create a demand for the local product.

By-Catch
An effort is being made by CSIRO to research by-catch compositions in the Northern Prawn Fishery, especially of bugs, squids and scallops, with a view to helping the industry increase income from these sources.

Bio Security
The need for careening facilities has been raised for the Gulf ports of Weipa and Karumba. At present, boats are being brought up on beaches for scraping. It was claimed that in warm tropical waters, scraping needs to be carried out twice a year. There is seen to be a need for dedicated facilities to place the bio security risks in single controlled areas minimise risk of marine infestations spreading in the area.

It would appear that at Karumba, there is one area being used on Ports Corp land. It was observed that infestations could have the potential to close ports such as Weipa.

Motherships’ Rubbish
There were complaints that Cairns Regional Council was levying charges on rubbish brought back from fishing vessels. This rubbish is taken on board to avoid dumping at sea and it was suggested that disincentives to bringing in rubbish from sea should be removed.
6.2.3 Reef Fleet & Other Tourism Vessels

Tourism Vessels Maintenance
Low growth and an oversupply of capacity is seen to be leading to a gradual tendency to run down boats and associated equipment quality and to a failure to invest in new boats and hardware.

Marketing Policies
Federal and State Governments were accused of having indulged in vote catching ‘dispersal’ policies that have ignored the icons such as the Great Barrier Reef that bring tourists to Australia. International air access is seen as a major issue.

Climate Change Impacts
There is widespread concern that negative media is impacting on perceptions of the quality of the Great Barrier Reef experience. It was claimed that it was a perception rather than a reality.

On the other hand, there is concern in the sector about potential coral bleaching events and water run off.

It is believed important by some that the region portray a climate friendly image. One issue is that engines available to the industry breech warranty if bio fuels like ethanol are added to fuel.

(Note: Research in the European market indicated that there was not as large a concern about green house gas emissions of air travel as was feared. The research reported that it was viewed as more important to be ‘green’ in lifestyle at home during the year and if you did, travel carbon emission ‘splurging’ on holidays was more permissible.)

However, it is clear that there will be pressures for the marine industry to present a ‘green’ image in the future. The question is how much this can be allowed to affect price competitiveness.

Inferior Sites
There was a claim that some operators run to inferior sites and this affects perceptions of the quality and state of the reef.

Sullage Disposal
Sullage disposal is a current major issue – as to whether there should be on-board treatment or on-shore disposal. Shore disposal is a problem for those vessels staying out on the reef for a number of days. Sullage regulations commenced on 1st January 2009.

Port Facilities for Reef Fleet

Cairns – The marina is regarded as excellent for general reef operators, but capacity is tight.

Sullage pumping facilities are an issue (see above).

The charter fishing element of the fleet would like to have an area of the marina dedicated for ‘local’ charter boats that can be accessible to walk-on traffic. (Currently, there are ‘no trespassing’ signs at the start of the fingers and ‘walk on’ traffic is being lost.) Fingers D or E would be suitable for this function. It was suggested that this could include bringing back the Marlin Gantry with a fibreglass marlin and educational boards about marlin and sports fishing and the tagging program.

Charter fishermen see a need for improved car parking for loading, repairs and maintenance and 24 hour access to trolleys that have drop down or removable sides.

Concern has been expressed about keeping the marina clean and presentable at all times and about cruising yachts carrying out repairs in the marina and being mixed up with charter fishing vessels.

There will be a need for additional marina facilities in Cairns for growing numbers of superyachts and cruising yachts.
Port Douglas – There were concerns that the channel is not managed and maintained. Very low tides can stop vessels especially those with a deeper draft. The marina silts up. A problem holding up dredging was a dump site for spoil. (However, both appear likely to be attended to in 2009.)

Cardwell – Dredging is an issue and the role for EPA in unduly delaying it.

Cooktown – The small Coral Princess 50 pax cruise ship operating out of Cairns would like to reliably come alongside Cooktown wharf but depending on tides has to send passengers in on tenders. However, if weather conditions are poor, it is not possible to send in the tenders and Cooktown is bypassed.

Working Visas
A need to increase working visas and immigration of workforce in general was mentioned.

Diving
The number of people doing diving instruction courses is declining Australia wide and Asia/Pacific.

Other Charter Fishing Issues
Charter fishing operators are concerned about a constant battle with environmentalists.

They are also concerned about cheap Queensland licence costs of $250 that encourage New South Wales boats to come north but penalise Queensland boats going south ($50,000 in New South Wales).

Seasonal closures in October/November/December and reduced fishing areas are of concern including lack of consultation.

Cruise Shipping – Under Realisation of Income Potential
Industry organisation Cruise Down Under puts figures for 2006/07 economic impact of the cruise shipping industry in comparison with other major ports as follows.

<table>
<thead>
<tr>
<th>Table #43: Cairns Cruise Shipping Compared, 2006/07</th>
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<tbody>
<tr>
<td><strong>Visit Days</strong></td>
</tr>
<tr>
<td>****</td>
</tr>
<tr>
<td>Sydney</td>
</tr>
<tr>
<td>Brisbane</td>
</tr>
<tr>
<td>Melbourne</td>
</tr>
<tr>
<td>Darwin</td>
</tr>
<tr>
<td>Fremantle</td>
</tr>
<tr>
<td>Cairns</td>
</tr>
<tr>
<td>Hobart</td>
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</tbody>
</table>

The table indicates that Cairns has the second highest visit days and fourth highest passenger days, but that expenditure shown for Cairns is only a fraction of that in Sydney, Brisbane and Melbourne and exceeded by Darwin and Fremantle with much lower passenger days.

**Pax expenditure per passenger day comes out at:**
- Fremantle………………..$557
- Brisbane………………...$553
- Sydney…………………. $458
- Darwin………………….. $295
- Melbourne………………$169
- Cairns…………………... $141

**Spending by operator per visit day works out at:**
- Melbourne………………543,750
- Sydney…………………. 423,595
- Brisbane………………346,296
- Darwin…………………. 189,655
- Fremantle………………150,000
- Cairns…………………... 24,705
If the above figures are correct, Cairns as Australia’s second most visited cruise shipping port has a major problem of under-realisation of potential expenditure in all sections.

Information available on locally based cruise shipping operations indicates that expenditure generation by locally based cruise ships is many times the value of the calls by the larger vessels. There is strong justification in pursuing local basing of cruise shipping and giving preference to locally based cruise ships.

**Cruise Ship Facilities**

Proposed new cruise ship facilities at Cairns need to build in a capacity to get visitors from and to the ship by covered walkways during wet weather.

**Channel Restrictions**

The depth and width of the channel is a substantial issue for cruise ship business. Substantial numbers of cruise ships have no alternative but to stand offshore and ferry passengers ashore.

A number expressed a desire for their ships to come into the port. The channel is so tight for some vessels that they need to get computer modelling carried out to enter. Entry becomes risky if weather/wind conditions change.

Difficulties have been experienced in the past of cruise ships having difficulties and scraping the side of the channel.

Indications from the cruise ship companies are that, for the larger ships, it is a real question as to whether going into port is worth it compared with:

- Carrying passengers ashore in the ship’s tenders (which are really their life boats), or
- Passengers being packed up from the ship by reef ferries to visit the reef.

The pros and cons were put as follows.

Going into port involves extra cost which presumably would be higher if substantial capital expenditure was incurred in deepening the channel and increasing the extent of the swing basin to take larger ships. Cruise ships cannot run the risk of being delayed in port due to tight depth and width tolerances and changed weather conditions.

The ship’s tenders are the ship’s lifeboats that need to be kept in top condition. Constant use of the tenders has its problems.

- For safety reasons, they need to be no more than two miles from the ship.
- Constant use involves wear and tear and they cannot be used constantly.

While going into port reduces the need to use the tenders, it is possible to substitute their use by having shore based catamarans come out. The tenders carry 100. Shore based ferries will typically carry 200 to 300.

This need will probably be relevant to a number of the smaller centres up and down the coast.

Calling into port has an advantage of cruise ships being able to carry out minor maintenance and repairs in port.

The possibility of a large cruise ship being based in the port further emphasises the issue of port depth and channel width.

The real underlying issue for the cruise ships is the reaction of passengers. Cairns is highly desirable in terms of the proximity of the CBD’s shops and facilities and the range of tours available from the CBD area. However, landing at Yorkey’s Knob is proving to be quite satisfactory and there is an opinion that there is not a big balance of advantage for passengers in going into the port.
Cairns Ports staff are of the opinion that the balance of advantage is very much in favour of going into port and that the experience has been that every cruise ship that can enter the port has come in rather than stand offshore. In this case, given increased size of cruise ships, the current port restrictions are an issue.

It is also clear that the depth of the port is an issue for bulk cargo ships loading sugar and unloading fuel and fertilisers (see Section 6.2.1).

It is of interest in relation to cruise ships that the larger ships do not go into Townsville but anchor offshore for two reasons:

a) The bend in the channel can be a problem.

b) The sugar wharf berthed at, is some distance from the downtown area requiring passengers to be bussed into town.

**Government Regulation**

Increasing government regulation and restrictions is reported across the sector to be placing a burden on the Reef Fleet that is increasing need for staff allocated to this function and costs.

**Marina Development and Small Boat Facilities & Issues**

With strong continuing growth likely to take place in recreational boat ownership, demand for tourism visitation to the reef, diving, charter fishing and superyacht and cruising yacht visitation, demand for marina facilities throughout the region seems likely to expand, creating a demand for private and public facilities.

It is likely that a number of these will be associated with residential and commercial land developments that will help finance them.

It is normal to have associated with these developments, fuel and other marine sales (bait, etc.) and some repair and maintenance facilities.

**Port Hinchinbrook** is typical of this type of development but has a critical need for dredging.

**The Mission Beach** community is calling for a marina to be developed in the northern (leeward) side of Clump Point.

Small boat facilities including fishing boat facilities are seen to be needed as part of the development mix at **Mourilyan Harbour**.

There are a number of marina developments proposed at **Innisfail** associated with residential developments. The Sea Haven Development at Innisfail is proposed to include 56 berths and associated restaurant and 178 house lots. There is also a proposal to develop the “Sea Borne” marina on the northern side of the river with 200 berths, 390 residential lots and marine industry facilities.

The **Cairns Marlin Marina** has been highly successful.

Clearly, more marina type developments will be needed in Cairns over a period of time to cater for:

- Expansion of the reef tourist passenger ferries. Space is currently limited although passenger capacity is such that numbers could expand substantially without need for new facilities.
- Expansion of dive and reef charter operations over time (preferably associated with reconfiguration to make the charter fishing and perhaps dive operations more accessible for ‘walk up’ clientele).
- Expansion of superyacht berths to cater for growing demand.
- Expansion of berths for cruising yachts.
It seems to us that the priority usage for the Marlin Marina facilities should be for the tourism related Reef Passenger Fleet, Dive and Charter fishing vessels and the Superyachts.

The earlier Superyacht study indicated conflicts with work being done on both superyachts and cruising yachts. One way to relieve demand pressure on the Marlin Marina will be to create better facilities in the Smith’s Creek area for superyachts and cruising yachts to move to for the purposes of having work carried out on them but in a comparatively attractive atmosphere. Possible location would be in the area of the second trawler base/duck pond area. It may be possible to create an attractive facility in this area that incorporates both a second super and cruising yacht facility but with more relaxed maintenance work rules and a fisherman’s wharf complex.

There may be some capacity to expand the marina development further out to sea or into the port towards No. Wharf.

Other sites suggested for additional marina capacity in the immediate city area were the northern end of Admiralty Island and the Esplanade foreshore. Both have natural or visual environmental complications. The northern end of Admiralty Island would require major infrastructure spending in the first place and compete with likely future cargo port expansion requirements and possible long-term relocation of fuel storage areas. However, it was suggested that it might be developed with ‘world class’ superyacht maintenance facilities.

**Yorkey’s Knob** and the **Bluewater** development will take pressure off Marlin Marina especially for use by cruising yachts and possibly some dive and charter fishing operations. Other potential sites in the northern beaches area may be possible.

**Port Douglas**, Meridien have recently taken over the Marina Mirage complex and there are a range of issues relating to the future development of Dickson’s Inlet (see Section 6.3).

**Cape Tribulation** - There is a growing trend to access the reef from the Cape Tribulation area and it seems likely that demand for reef access marina facilities will increase in that area. Current town planning policies would appear to mitigate against the development of a marina in that area.

**Cooktown** - There are clear pressures to upgrade access into Cooktown for fishing industry, small cruise ships and Navy access through dredging. The need for forward planning and zoning of strategic port land along the Cooktown waterfront was raised.

The amount of boat usage in the Torres Strait, growing tourism operations, increasing visits by super and cruising yachts mean that a marina development could be contemplated together with a possible travel lift and associated maintenance facilities. Two possible sites were canvassed – along the town foreshore or another suggestion was in the vicinity of the Rosehill ramp on the northern side of the island.

**Weipa** is also looking to achieve improved facilities for small boats and associated repair and maintenance facilities. A number of potential locations are being studied for a marina. A separate area for repair and maintenance facilities equipped with a travel lift has been identified and is being investigated. Weipa facilities could draw vessels from throughout the Gulf area and the Torres Strait area.
6.2.4 Navy and Government Vessels

Navy
HMAS Cairns is currently in the throes of a major expansion.

Issues for the Navy included a need for more space in the port, especially to work on boats alongside. This adds to a general additional need for this type of wharf space (see Section 6.3).

A number of issues are raised in relation to training that relate to the Navy (see Section 6.5).

The need to deepen access to Cooktown was also raised (see also the Fishing and Tourism Fleet Sections 6.2.2 & 6.2.3).

Coast Guard
Coast Guard in Innisfail is at Mourilyan due to depths in the mouth of the river at Innisfail. A new ramp is being built to be finished in August next year.

Coast Guard at Port Douglas is concerned about being shifted to an impractical area upstream.

Dredging would improve emergency access from and to the port at Cooktown.
6.3 REPAIRS, MAINTENANCE AND OTHER SERVICES

Cairns Marine Services Precinct - Location, Efficiency and Pressures

One of the major advantages of Cairns' marine industries service centre is the compact efficiency of the sector’s location in Cairns. A wide range of services are conveniently located right next to the wharves and berths in Tingara Street and throughout the adjacent Portsmith area.

This area is also located close to major land transport routes (rail and road). It is close to the CBD and its business services and northern Australia’s leading international passenger and airfreight hub is only 10 to 15 minutes away by car/truck.

It is important that this Marine Industrial Precinct is retained and that there is room to accommodate expected growth. Pressures on the area comes from:

- Expansion of the CBD and tourism facilities,
- Other non-marine industrial land uses
- Environment pressures to contain the spread of the precinct into existing mangrove wetland areas further up Smith’s Creek and across onto the northern end of Admiralty Island.
- Increased lease costs forcing relocation to other areas.

Establishment of facilities on Admiralty Island would have the advantages of relatively deep water offshore but would require initial capital investment in bridging Smith’s Creek, with complications for passage of boat traffic up stream if the bridge was relatively low.

One notable danger is the existence of the fuel tanks in the middle of the precinct and suggestions were received that long-term planning might provide for their relocation to the sand ridges on the northern end of Admiralty Island. The tank farm leases are believed to expire between 2019 and 2024. Although the Shell facilities are believed to be not on Cairns Ports land.

Another suggestion received was that major purpose built world class facilities for superyachts including marinas, maintenance and repair might be located on the northern end of Admiralty Island (see previous Section 6.2.3).

Berthage for Maintenance and Repairs

Availability of more berthage space for maintenance and repairs (other than those needing slipping or lifting out of the water) was seen as a significant issue.

The question of providing berths for visiting super and cruising yachts away from the Marlin Marina for vessels who wish to carry out maintenance and repair is mentioned in Section 6.2.3.

Desire for more berth space for this type of activity was mentioned also in relation to Tropical Reef Slipway for larger vessels and Norship for smaller vessels.

The situation at Tropical Reef Slipways is particularly constrained by the sugar terminal on one side and the first trawler base on the other side. The possibility of expanding berth facilities for maintenance and repair work and relocation of fishing berths further down Smith’s Creek was raised for consideration.

The Navy will also have need for berth space for maintenance and repairs. The bulk sugar terminal next door to the Navy Base is used only 30 days a year. The Navy has also looked at acquiring further berthing space further up Smith’s Creek for this purpose.
Investment in Expanded/New Facilities
While Cairns is in a dominant position in the north in slipway/shipyard business, it faces strong competitive pressures as mentioned in Section 5.6.1 Economic Trends.

A number of comments were received in the course of the study about the degree that the Western Australian, South Australian governments and Northern Territory had supported the marine sector and that the Queensland and Federal governments had supported competitive facilities in Brisbane.

Cairns is facing competition from excellent new facilities for superyachts from the Brisbane/Gold Coast area, for general commercial work from excellent facilities in Port Moresby, and the facilities in Darwin for navy work.

There are plans for Tropical Reef Slipway to invest in increasing its capacity. Norship have been investing in increased capacity.

There were suggestions from the Superyacht study that Cairns needs to invest in world class facilities for this type of vessel if it was going to remain competitive.

It was suggested that the current arrangements at Cairns Slipway was old technology and there needed to be an investment in syncrolift type technology with side transfer capability.

Loss of Pacific Patrol Boats’ maintenance contract to Rosshaven Marine in Townsville indicates there may be a cost competitiveness problem.

Air-warfare Destroyer Contracts
NQEA’s bid to win contracts for construction of sections of these vessels has major potential benefits for the Cairns economy (see Section 5.5), but also in strengthening the marine industries sector.

There are two major issues for NQEA and the sector, the availability of the ship building sheds for the project not now owned by NQEA and the facilities for loading the sections with possibilities being:

   a) Transfers via Cairns Slipway facilities.
   b) Transfer via proposed common user barge facility.
   c) Wide load road transport to No. 7 Wharf.

Seasonality and Weather Susceptibility
Although in the words of the late Dick Fry, founder of NQEA, at a 1970’s Commonwealth Parliamentary Inquiry into the awarding of the Fremantle Patrol Boats contract, “Cairns receives a lot of boss’s weather – it rains at night and is fine during the day”.

Weather susceptibility especially during the wet season can be an issue for slipways and the marine services sector.

Situations where 80% of the work is done in six months of the year are not satisfactory.

Certainly, construction of large enclosed spaces such as the former NQEA shipbuilding sheds, the Big Boat shed and a number of sheds at Norship Marine can improve year round productivity and also in some cases, improve environmental outcomes. Future plans for the sector needs to include construction of more covered work space areas. The need for ultra clean facilities has been mentioned as particularly important for work on superyachts and future maxi yacht white boats.
Relationship with Air Services
One of Cairns’ advantages as a maritime servicing centre was seen to be the city’s air services to other parts of Australia and overseas. This advantage related to movement of personnel and crews.

However, it also related to marine parts. For instance, it was suggested that it was quicker and easier to obtain marine parts from Singapore via daily air services into Cairns than into Melbourne.

Much of the region’s fishing industry output moves by air to markets in Japan and Hong Kong as well as other overseas destinations.

This highlighted the importance of maintaining and expanding international routes.

Workforce
Although Cairns is better positioned than other northern centres, availability of and training of skilled marine tradesmen and technicians is seen as a major issue for the sector.

The role of local firms in training workforce was mentioned. However, it was clear that there was a great deal of enthusiasm for the proposed Maritime College and for the College extending its capacity to include the specialist trade needs of the marine servicing sector.

There were suggestions there was a special need to increase the supply of shipwrights particularly with timber skills.

Security Issues
Security issues were subject of widespread comment.

Security arrangements in the port have increased greatly in recent years. However, they are obviously causing problems for delivery of services by tradesmen who need to work on vessels, sometimes at odd hours and often after 6PM when gates to the fingers are locked.

Government Regulations
As with other sections, over regulation and slowness to respond by Government, was seen as an issue that can unnecessarily raise costs for the maintenance and repair sector, especially by Workplace Health and Safety and the Environmental Protection Agency (especially in relation to dredging approvals).

It needs to be recognised that the sector in Cairns competes not only with other centres around Australia but also with lower wage cost countries in the Pacific.

Immigration Restrictions
Inflexible administration of immigration laws relating to crew of ships being worked on at Cairns has emerged as an issue. If overseas vessel repair times in Cairns run on beyond original plans, cases were occurring where the crew, at substantial cost, were having to be flown home and back again. It is believed that action has been put in train by the Commonwealth Government to overcome the problem.

Ships Surveys
The opinion was expressed that Queensland should go to annual surveys as in other States to enable local ships to operate in other State waters.
6.4 **EDUCATION AND TRAINING**

After many years of unsuccessful attempts to upgrade its maritime training facilities that go back to the 1970’s and 1980’s, the region is now on its way to achieving major progress through the establishment of the Great Barrier Reef International Marine College. The College has the potential to become a major player in the sector in Cairns.

At a basic level, it will be of increasing importance to the capability of the sector and its ability to compete as a quality service provider that first class education and training is available locally.

The Marine College also has the ability to extend the outside earnings of the sector.

It is vital that the initiative continue on its current path.

Achieving the development of the College has been an initiative of the marine industries in the area. The model chosen provides for the industry to have a strong and vital input into the institution. It is important that this close relationship and vitality be maintained in its organisational structure and operations into the future.

It is also vital that it have a strong emphasis on workplace based training in collaboration with the various elements of the industry in the region. Private providers have in the past been a vital part of the sector and it is important that their role continues to be recognised.

Achieving the development of the College has brought the sector together to achieve an objective. The need for continuing overarching collaboration in the sector is addressed in a later section.

It is envisaged that the size of ship for which training can be provided will be able to be progressively increased in association with the Australian Maritime College, Launceston, and possibly in association with James Cook University, Cairns Campus.

The marine sector along with the aviation sector emphasises the leading position of the Cairns region in mechanical engineering and electronics in northern Australia and it would be appropriate that James Cook University interest itself in development of a special capability for studies in these fields at its Cairns Campus.

An opportunity that could be of particular value to local industry (especially the fishing industry), the Navy and the College relates to the Navy’s need for additional manpower in the future for crewing the new Air-warfare Destroyers and the two new Amphibious ships. The Navy is looking to develop the Navy Reserve capacity to handle its smaller ships, releasing full-time personnel to crew the larger ships.

It has been suggested that Cairns and the proposed new College could play a key role in training Navy Reserve personnel under a system that draws on the local maritime industry, especially from those sectors that tend to be seasonal, notably the fishing industry. Fishing restrictions have been further shortening operating periods for the industry. Personnel would serve in the Navy Reserve, earning income during off-periods, carrying out training through the College.

The opportunity to liaise with the Australian Navy could include the possibility of developing training simulations (e.g. for damage control training). The possibility of developing the College and Cairns as a centre for Hydrographic studies could usefully be explored along with possibilities of a special training relationship with Naval establishments in the Pacific Island countries.

The College will share with other elements of the region’s marine industries sector (e.g. slipways), and other elements of the region’s business community, an opportunity to expand its business through drawing students from a wider area across northern Australia and into adjacent Asia/Pacific Island areas.

The need to work together in these endeavours is canvassed in a later section.
7. **ANALYSIS**

7.1 **GENERAL**

This section looks back at the information in the foregoing sections and develops a capability/competitiveness matrix to summarise key capabilities, competitiveness against competitors, and an analysis of strengths, weaknesses, opportunities and threats.
## SEAPORTS

### CAIRNS

<table>
<thead>
<tr>
<th>Type</th>
<th>Cairns Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk Vessels</strong></td>
<td>Channel depths.</td>
<td>Townsville up to 85,000 tonnes.</td>
</tr>
<tr>
<td>Over 50,000 tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50,000 tonnes</td>
<td>Vessel size economies are a potential problem with depth problems occurring at present.</td>
<td>Townsville alternative but 300km to the south.</td>
</tr>
<tr>
<td>Sugar</td>
<td>Nil</td>
<td>Mourilyan potential alternative if storage and loading facilities developed.</td>
</tr>
<tr>
<td>Fertilisers</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Fuels</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Minerals &amp; woodchips</td>
<td>No storage &amp; loading facilities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hinterland road &amp; rail deficiencies.</td>
<td></td>
</tr>
<tr>
<td><strong>Container Vessels</strong></td>
<td>Channel depths.</td>
<td>Townsville up to 85,000 tonnes.</td>
</tr>
<tr>
<td>(Not Self Loading)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 50,000 tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50,000 tonnes</td>
<td>Only self loading vessels, no port crane.</td>
<td>Townsville.</td>
</tr>
<tr>
<td><strong>Cruise Ships</strong></td>
<td>Channel depths.</td>
<td>Offshore anchorage, ferry ashore.</td>
</tr>
<tr>
<td>Over 50,000 tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50,000 tonnes</td>
<td>No constraints.</td>
<td>Offshore anchorage if port charges uneconomic.</td>
</tr>
<tr>
<td><strong>Cargo Vessels</strong></td>
<td>Channel depths.</td>
<td>Townsville.</td>
</tr>
<tr>
<td>(Self Loading)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 50,000 tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50,000 tonnes</td>
<td>Deficient rail connections &amp; container storage area</td>
<td>Townsville an alternative (see PNG Consort service).</td>
</tr>
<tr>
<td><strong>Live Cattle</strong></td>
<td>No holding &amp; loading facilities.</td>
<td>Mourilyan &amp; Townsville.</td>
</tr>
<tr>
<td>Under 50,000 tonnes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MOURILYAN

<table>
<thead>
<tr>
<th>Type</th>
<th>Mourilyan Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk Vessels</strong></td>
<td>Insufficient depth</td>
<td>Cairns up to 50,000 tonnes, Townsville up to 85,000 tonnes.</td>
</tr>
<tr>
<td>Over 45,000 tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 45,000 tonnes</td>
<td>Vessel size economies a potential problem.</td>
<td>Cairns has facilities.</td>
</tr>
<tr>
<td>Sugar</td>
<td>Nil</td>
<td>Cairns has facilities.</td>
</tr>
<tr>
<td>Fertilisers</td>
<td>No facilities.</td>
<td>Townsville.</td>
</tr>
<tr>
<td>Fuels</td>
<td>No facilities.</td>
<td>Cairns has no facilities. Possible if facilities developed.</td>
</tr>
<tr>
<td>Minerals</td>
<td>No facilities.</td>
<td>Townsville.</td>
</tr>
<tr>
<td>Woodchips</td>
<td>No facilities.</td>
<td>Cairns has no facilities. Possible if facilities developed.</td>
</tr>
<tr>
<td><strong>Container/General Cargo Vessels</strong></td>
<td>No crane.</td>
<td>Townsville. Cairns no crane.</td>
</tr>
<tr>
<td>Not Self Loading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Loading</td>
<td>Only sugar wharf.</td>
<td>Cairns has facilities.</td>
</tr>
<tr>
<td><strong>Cruise Ships</strong></td>
<td></td>
<td>Possible if suitable arrangements made.</td>
</tr>
<tr>
<td>No facilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mourilyan away from Innisfail.</td>
<td></td>
<td>Cairns alternative.</td>
</tr>
<tr>
<td>No reef cruises ex Mourilyan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Live Cattle</strong></td>
<td></td>
<td>Townsville possible alternative.</td>
</tr>
<tr>
<td>Under 50,000 tonnes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### CAPE FLATTERTY

<table>
<thead>
<tr>
<th>Cape Flattery Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only has facilities for bulk cargoes.</td>
<td></td>
</tr>
</tbody>
</table>

### THURSDAY ISLAND

<table>
<thead>
<tr>
<th>Thursday I/Horn I Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk Vessels</strong></td>
<td></td>
</tr>
<tr>
<td>Over 2,500 tonnes</td>
<td>Insufficient depth.</td>
</tr>
<tr>
<td>Under 2,500 tonnes</td>
<td>Limited shore facilities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Container/General Cargo Vessels</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Self Loading</td>
<td>No port cranes.</td>
</tr>
<tr>
<td>Self Loading</td>
<td>Nil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cruise Ships</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lack of landward facilities.</td>
</tr>
</tbody>
</table>

### WEIPA

<table>
<thead>
<tr>
<th>Weipa Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk Vessels</strong></td>
<td></td>
</tr>
<tr>
<td>All over 85,000 tonnes</td>
<td>Insufficient depth.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Under 85,000 tonnes</th>
<th>Minerals</th>
<th>Bauxite</th>
<th>Other minerals</th>
<th>Fuels</th>
<th>Storage &amp; loading facilities.</th>
<th>None.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Container/General Cargo Vessels</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Self Loading</td>
<td>No shore crane facilities.</td>
</tr>
<tr>
<td>Self Loading</td>
<td>Nil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cruise Ships</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shore facilities permission.</td>
</tr>
</tbody>
</table>

### KARUMBA

<table>
<thead>
<tr>
<th>Karumba Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulk Vessels</strong></td>
<td></td>
</tr>
<tr>
<td>Over 5,000 tonnes</td>
<td>Insufficient depth.</td>
</tr>
<tr>
<td>Under 5,000 tonnes</td>
<td>Nil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Container/General Cargo Vessels</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Loading</td>
<td>Nil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cruise Ships</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shore facilities.</td>
</tr>
</tbody>
</table>
## TRADING FLEET

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peninsula &amp; Torres Strait Ports</td>
<td>Lack of RORO common user barge ramp Cairns. Restraint on size of machinery handled.</td>
</tr>
<tr>
<td>Poor port rail connections and port side container storage Cairns.</td>
<td>Medium threat from Townsville and of transhipment via Karumba.</td>
</tr>
<tr>
<td>Control of wharf facilities Weipa.</td>
<td>“ditto”</td>
</tr>
<tr>
<td>Cairns</td>
<td></td>
</tr>
<tr>
<td>Intercontinental trade crewing arrangements.</td>
<td>Opportunity to return via Perkins services ex Cairns. Ownership change to Rio Tinto (also own Weipa).</td>
</tr>
<tr>
<td>NT Government policies.</td>
<td></td>
</tr>
<tr>
<td>PNG</td>
<td>Poor rail connections and portside container storage Cairns. Cairns lost this trade to Townsville about 1990.</td>
</tr>
<tr>
<td>PNG Government policies to use PNG ships.</td>
<td>Opportunity to return coming from LNG project requirements.</td>
</tr>
<tr>
<td>Amamampare</td>
<td>Poor rail connections and portside container storage Cairns. Cairns won this trade from Darwin in 1970’s due to waterside worker problems. Darwin has constantly sought to win it back.</td>
</tr>
<tr>
<td>Recent moves not to include Cairns in container inspection service.</td>
<td>Townsville is a possible threat.</td>
</tr>
</tbody>
</table>

## FISHING FLEET

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berthing and product handling charges.</td>
<td>Cairns has won business from other ports (eg. Darwin) because of lower slipping and maintenance costs. The fall off in mining activity could see some pressures come off alternative ports. Businesses have become wary about continuing investment in industry because of regulations especially constant changes of regulations.</td>
</tr>
<tr>
<td>Lack of berthing space and other facilities during off season.</td>
<td></td>
</tr>
<tr>
<td>Changes in location of fishing grounds.</td>
<td></td>
</tr>
<tr>
<td>More regulation.</td>
<td></td>
</tr>
</tbody>
</table>

## TOURISM FLEET

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reef Fleet</td>
<td>Nil No major alternatives available. Possible expansion in area south of Cairns.</td>
</tr>
<tr>
<td>Cruise Ships</td>
<td>See above re ports.</td>
</tr>
<tr>
<td>Superyachts</td>
<td>Lack of growth of Cairns marina and provision of larger berths. Growing marina and competitive servicing capacity in the Whitsundays. Growing servicing capacity Brisbane/Gold Coast.</td>
</tr>
<tr>
<td>Cruising Yachts</td>
<td>Lack of provision of more marina space. Growing marina space, Whitsundays.</td>
</tr>
<tr>
<td>Berth charges.</td>
<td></td>
</tr>
</tbody>
</table>
## MAINTENANCE & REPAIR FACILITIES

<table>
<thead>
<tr>
<th>Sipways</th>
<th>Cairns Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessels over 3,000 tonnes</td>
<td>No capacity.</td>
<td>Southern Australia, New Zealand, Singapore, Philippines.</td>
</tr>
<tr>
<td>Vessels 400 to 3,000 tonnes</td>
<td>Some facilities are old technology. Not world class especially for superyachts.</td>
<td>For commercial work, Cairns competes on location and price against southern facilities in Brisbane and further south and New Zealand. It competes on price and depth of capability with Darwin. It competes on technical superiority with PNG and Pacific yards, especially in engines, electrics, electronics etc. as opposed to cutting, blasting and painting. Its prime competition at present is from the Philippines. For Naval work, it competes with Darwin and other Australian yards. This business is usually heavily from the local fleet and Cairns depends a great deal on the size of its local fleet in this size of ship.</td>
</tr>
<tr>
<td>Vessels under 400 tonnes</td>
<td>Some facilities are old technology. Limited berthage space to work on boats alongside. Labour costs.</td>
<td>Cairns is highly competitive in this field in commercial and naval work, especially with investment by Norship in 400 tonne lift. Competition is mainly from other smaller centres in Queensland (eg. Townsville that at times will undercut the Cairns’ firms).</td>
</tr>
</tbody>
</table>

## OTHER REPAIRS & MAINTENANCE & ASSOCIATED SERVICES

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success/non-success of slipways in attracting business. Size of local fleet.</td>
<td>Slipways have little alternative but to draw form local service providers for subcontract work.</td>
</tr>
</tbody>
</table>

## OTHER SERVICES (GOVERNMENT)

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent on Government decisions.</td>
<td>Some competition in location of State services from Townsville/Brisbane. Some competition for Commonwealth services from Townsville and Brisbane and from Darwin (esp Navy).</td>
</tr>
</tbody>
</table>

## OTHER SERVICES (HIGHLY SKILLED AND SPECIALISED EG. SONAR MARINE SURVEYING)

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air access to wider markets Asia/pacific. International boundaries and Government requirements. Size of local and wider markets.</td>
<td>Competition is mainly from major southern metropolitan centres or competitive services establishing in local centres, eg. Port Moresby, Darwin. Cairns acts as a ‘capital city’ in some of these types of services for the wider SW Pacific area. Competitiveness depends on its relative critical mass.</td>
</tr>
</tbody>
</table>
7.2 **SWOT ANALYSIS**

The following sets out a brief analysis of main strengths, weaknesses, opportunities and threats for the sector.

**Strengths**

- Comparative size of tourism and fishing industries, and Cairns’ strategic position, leading to comparatively large local tourism, fishing, trading and government fleet.
- Hub air transport position in relation to wider North Australia/South West Pacific area and wider domestic and international services and position as northern terminus of Australia’s east coast road and rail network.
- Comparative critical mass of investment in marine industry facilities and equipment.
- Comparative range and depth of marine industries skills at management and workforce levels.
- Comparative size and skills of the region’s general workforce and business community in Northern Australia/South West Pacific context.
- Comparative attractiveness of Cairns as a place to live and work in wider North Australia/South West Pacific context.

**Weaknesses**

- Lack of investment in adequate port facilities in light of increasing size of vessels commonly being used in almost all sections of the marine industries.
- Lack of education and training facilities specifically oriented to the sector.
- Lack of equivalent government support for the sector compared to other competitor areas (eg. Port Moresby, Brisbane, Darwin, Perth).
- Comparatively high port charges in some fields (eg. Fishing and Thursday Island).

**Opportunities**

- Recent downward movement in value of Australian dollar has increased competitiveness in wider markets.
- Air-warfare Destroyer contracts offer an opportunity to re-establish defence shipbuilding.
- Expand service capability to include developing as a hub in wider Northern Australia/South West Pacific area for marine training and education.
- Expand regional cargo shipping opportunities to cater for the expanding mineral resource sector including LNG plants and mining in Papua New Guinea and mining in Western Cape area and possibly opportunities to replace road and rail transport to southern centres with coastal shipping.
- Expand ports to meet increased and diversified export opportunities in the south east of the region (Cairns and Mourilyan), in Western Cape area and possibly in Karumba and Cooktown areas.
- Establish Cairns and the region as a major hub for cruising in the Coral/Arafura/Bismark Sea areas including home ported vessels and including cruise ships, superyachts and cruising yachts.
- Expand greatly the number and size of marinas in the region.
- Exploit superiority of range and quality of the marine services sector to establish a ‘capital city’ dominance in the wider Northern Australia/South West Pacific market.
Threats

= Continuing instability and disincentive to invest in the fishing industry through constant changes in the regulatory environment, leading to potential widespread collapse of the sector.

= Failure to resolve complex land and seafront usage needs for expanded marine industry operations at Cairns seaport including:
  o Needs for expanded marina operations, cruise ship berthage and backup facilities, roll-on/roll-off/barge facilities, container handling space and facilities, opportunities to ship bulk cargoes, expanded slipway operations, and alongside berthage needs for repairs and maintenance operations for a range of vessels - Navy, cargo and work vessels, superyachts, cruising yachts and fishing vessels.
  o Expanding need for land in the harbour/Portsmith area for marine industry related operations in the face of land use pressures from other sectors.
  o Need for extensive consultation with fuel companies and Cairns Regional Council in relation to the consolidation of the fuel farm and a risk analysis of the fuel wharf.

= Reduced world commodity prices leading to cancellation or delay of mineral resource projects in the region.

= Government supported and encouraged investment in superior slipways/ship repair facilities in competitive centres in the wider North Australia/South West Pacific area.

= Failure to resolve dredging issues.
8. **ACTIONS AND STRATEGIES**

8.1 **GENERAL**

The following seeks to identify a program of actions and strategies that might be undertaken to build on the region’s strengths to capitalise on opportunities presenting themselves to the region’s marine industries and where possible, to counter threats and weaknesses.

While these recommendations are based on input from the surveys and discussions, the recommendations as presented have not been discussed widely and tested with the various elements in the sector. Before adoption, would need to be canvassed with appropriate parties.

The timing of this regional study is particularly fortuitous in that it has been carried out just prior to the major regionalisation of ports administration under the proposed new Far North Queensland Ports organisation based in Cairns.

**Port Administration**

It should be noted in this regard that in the course of the study, comment was received that it would be preferable for Weipa to have been included in the jurisdiction of Ports Far North Queensland based in Cairns rather than placed under the jurisdiction of a proposed Bulk Ports Corporation based in Mackay on the following grounds:

- Administration would be much more efficiently based in Cairns. Administrative efficiencies would have included much cheaper and easier access to/from Weipa and Brisbane for both port administration and company personnel. A Cairns location would result in co-location of both Ports and Marine Safety administrations.

- A Bulk Ports Corporation is simply not structured to deal with the general cargo and potential marina and ship repair facilities included in the port of Weipa.

- The inclusion of Weipa would help the new Far North Queensland Ports organisation to achieve better critical mass.

8.2 **SEAPORT DEVELOPMENT**

The region’s size and topography lends itself to the development of a number of sub area strategies – South East, Peninsula, Torres Strait, Western Cape, and Lower Gulf.

It is envisaged that carriage of this strategy would be mainly with the new Ports FNQ with special arrangements needed for Western Cape port of Weipa.

**South East**

There is a major need to develop a combined strategy for the development of the two seaports in the region’s south east – Cairns and Mourilyan, especially in the light of a need to cater for larger size vessels. Both seaports have constraints, not only in the port depths and infrastructure, seafront availability and port lands, but in the road and rail infrastructure connecting them to the hinterland. All these aspects need to be included in any developmental strategy. It is simply not efficient to have to transport cargoes up to 400km further south to Townsville when closer alternatives are potentially available. It is not practical to try to direct large cruise ships to ports that are not attractive to them from a tourism point of view.
The study indicated a number of cargoes potentially available over time. While unstable economic conditions are making some uncertain, there is a need to plan for contingent uses in both ports over time. Included in the cargo mix for bothy ports are potential additional bulk and containerised cargo as well as bulk commodities. Tidal port constraints in Cairns are already having effects on economies of cruise ship visits, sugar exports, and imports of fertilisers and fuels.

**Peninsula**

The strategy for the Peninsula cargo ports of Cape Flattery and Quintell Beach could simply be to maintain contact with the respective company and community and maintain a watching brief for potential bulk cargo port opportunities in the area (eg. Bathurst Head coal).

**Torres Strait**

The strategy for Torres Strait area (including NPA) would involve keeping in contact with TSRA and Councils and the shipping companies servicing the area.

**Western Cape**

Apart from the proposed major bulk port developments in this area, a strategy is needed for development of:

- The smaller ports at Skardon River, Port Musgrave, and Aurukun.
- The general cargo facilities for these operations and at Weipa.
- Proposed marina and small ship travel lift maintenance facilities at Weipa.

Apart from the companies involved, Western Cape Chamber of Commerce needs to be liaised with as part of any strategy in this area.

**Lower Gulf**

Karumba is the nearest seaport to a large part of Australia, including the North West Minerals Province. It is also a multiuse port that needs to be included in shipping trade development, live cattle trade development, and as a marina/small ships port.

Apart from the local community and Council, and companies involved, liaison needs to take place with Gulf Savannah Development. There should also be liaison with the Cairns Chamber of Commerce Resource and Industry Taskforce who have a program of continuing contact with mining operations in North West Queensland, some of whom may potentially wish to ship product via Karumba.

**Associated Infrastructure**

The seaport development strategy needs to be linked with a strategy to improve hinterland road and rail access.
8.3 **Shipping Trade Development**

**Coastal and Regional**
Cairns is the northern terminus of the east coast road and rail network, and the major coastal shipping hub for north eastern Australia.

Opportunities need to be explored with the companies operating shipping from Cairns and potentially from Thursday Island, Weipa and Karumba to expand coastal shipping. As a subset of this, changed economic conditions could be leading to rejuvenate an opportunity for live cattle exports.

Targets for expanded coastal trade lie in two directions.

**Northwards:**
- Papua New Guinea, especially with the large LNG projects and other mining developments in PNG
- Gove, Groote and other Northern Territory ports linking with services to Darwin and thence to South East Asian ports.
- Possibly to other Pacific ports, eg. Solomons, Micronesia.

**Southwards** to Brisbane and other metropolitan centres to replace road and rail transport.

Apart from the shipping companies themselves, such a strategy could involve the Cairns Chamber of Commerce with the support of Advance Cairns in mounting broader marketing efforts in the wider Northern Australia/South West Pacific countries for a range of services (see Marketing Coordination below) and in the case of southwards, liaison with the various producer groups (eg. Growcom) that might have an interest.

The live cattle trade opportunities need to be explored with the companies likely to be involved.

**Distant Export Markets**
Apart from coastal shipping and nearby regional trade, opportunities need to be addressed for expanding use of the region’s seaports for export of bulk cargoes and for containerised exports to distant markets ex Cairns seaport and possible importation. Major carriage of this needs to be with FNQ Ports. However, it needs to be in association with producers including those involved in mining, agriculture, fisheries and forestry.
8.4 **MARINE TOURISM DEVELOPMENT**

The opportunities lie in major segments:

- Large cruise ships.
- Smaller cruise ships.
- Superyachts.
- Cruising yachts.

Each segment has two dimensions – attracting visiting vessels and attracting vessels to home port in the region. For the smaller vessels, there are opportunities to also attract vessels for repairs and maintenance.

A strategy must address three elements:

- Marketing.
- Marina and Small Ships facilities.
- Investment in appropriate repairs and maintenance slipway/lift out capacities.

The Superyachts – Great Barrier Reef group has initiated a significant marketing effort in recent years and this needs to continue. The question is whether this initiative should or can be expanded to include marketing the region for the other types of vessels listed above.

In all cases:

- The market is global, although the cruise shipping contacts tend to be different to those of the superyachts.
- It involves not just marketing Cairns, but the wider Great Barrier Reef, Coral Sea, South West Pacific cruising area.

Apart from Ports FNQ, the slipways have an interest in the smaller vessels. Other suppliers, agents, and the tourist industry tend to have an interest across the range of vessels.

It is recommended that the superyacht initiative be continued but paralleled initiatives be developed in relation to cruising yachts and a further separate initiative to promote Cairns as a hub for cruise ships in the wider Great Barrier Reef, Coral Sea area.

It is recommended that the three initiatives be coordinated as part of a “Cruising the Coral Seas” strategy (or some other suitable name), especially aiming at positioning the area as a rival to other great cruising destinations like the Caribbean, the Mediterranean and West Coast Canada/Alaska.

This initiative should seek the support of Papua New Guinea and perhaps the Solomon Islands.

Any marketing program in relation to superyachts and cruising yachts needs to be paralleled by a program of development of marina and small ship port development.

The study has identified a range of developments in train, and proposals and locations for special investigation located right around the region’s coastline. Apart from the need for expansion of facilities for the cruising vessels, strategies to develop these types of facilities need to include the needs of other marine tourism operators (eg. reef ferries, dive boats and charter fishing). Marketing of these last activities is already covered by TTNQ.

The earlier Superyacht Study identified a need to have facilities to meet the special needs of superyachts for repairs and maintenance facilities.

Apart from Cairns, opportunities for increased small vessel repairs and maintenance facilities will occur in other centres. Weipa, Thursday Island, Port Douglas and Innisfail stand out as areas that are likely to support additional new investment in small vessel repair and maintenance facilities.
8.5 Cairns Seaport – Seafront and Land Use

It stood out in this study that there were a range of developments and opportunities that made a detailed review of Cairns seaport seafront and land usage critical, including:

- Where additional marina facilities can be located to cater for expected growth.
- Need for upgraded and expanded container handling facilities and holding areas.
- Common user barge facilities.
- Extra berthing spaces for cruise ships.
- Extra berthing spaces at which vessels can be worked on, from larger vessels up to the 3,000 tonne level, through to smaller fishing vessels, superyachts, reef fleet and cruising vessels.
- Lack of land space for portside storage of potential bulk cargoes.
- Pressure from non-marine industry to occupy valuable port area land threatening the current compact efficiency of this area through location and proximity to the effects (eg. noise) of a ‘working’ port..
- Long-term dangers of the standard and location of fuel facilities.

It was clear that failure to address these issues could represent a major threat to the port and the marine industry structure.

Some of these matters relate to the need to address the issue of port capacity at Cairns and Mourilyan in the light of a trend to larger sized vessels (see above). This issue is clearly in the province of Port FNQ to address in cooperation with port users and associated activities.

8.6 Marine Education and Training Hub

The region is well progressed towards exploiting the opportunity to establish much overdue Great Barrier Reef Maritime College.

This initiative has widespread support throughout the sector. Concern was expressed that it needed to be kept under industry direction.

The College will need to progressively raise its sights to turn it into a hub facility for the wider Northern Australia/South West Pacific area.

8.7 Regulation Difficulties

It is noted that a review is being undertaken by Government into marine regulation. Inappropriate regulation and especially constant changes to regulations (not just marine regulations but regulations affecting fishing and some reef tourism operations, EPA regulations affecting timely dredging, Workplace Health and Safety regulations, Immigration regulations), have been causing substantial difficulties for marine operators across a broad front.

It is recommended that the Department and regional organisations (like the Chamber of Commerce and perhaps Advance Cairns), take an interest in this question. Among the research material developed for the study, are widespread complaints and instances.
8.8 **MARKETING COORDINATION NORTHERN AUSTRALIA/SW PACIFIC AREA**

Various elements of the marine industries sector have an opportunity and need to market their services through the wider area of northern Australia and adjacent Asia/Pacific Island areas to the north, including the slipways and the Marine College.

The sector shares this interest with other elements of the Cairns business community, including the aviation sector, James Cook University and other elements of the education sector, and various other service industries including tourism.

While individual organisations will wish to pursue their own marketing effort, there can be value in banding together to achieve information flows to heighten awareness of developments in these areas, and at times, to embark on joint marketing activities. It is recommended that how liaison might be achieved is considered by the sector’s organisations and referred to the Cairns Chamber of Commerce and Advance Cairns for consideration.

8.9 **ORGANISATIONAL STRUCTURES**

The region’s marine industries sector is composed of a number of groups in Cairns and outside of Cairns that have only informal and sporadic interaction.

The following marine sector private organisations have been identified as being active in the region, although not necessarily based in the region.

**Non-Government Marine Industry Organisations**
- Marine Queensland (formerly Boating Queensland)
- Queensland Seafood Industry Association
- Australian Marine Park Tourist Operators
- Dive Queensland
- Pro Vision Reef (aquarium and live fish group)
- Cairns Professional Game Fishing Association
- The Super Yacht Group Great Barrier Reef
- Sunfish Queensland (recreational fishing group)
- Yachting Queensland
- Cruise Down Under

FNQ Ports Ltd has a Port Advisory Committee.

The Australian Maritime Training Network (Cairns) has played a major role in securing the development of the Marine College. It is composed of:

**Australian Maritime Training Network (Cairns)**
- Cairns Port Authority
- Department of State Development
- Dive Queensland
- Eco Fish
- KPMG
- Queensland Apprenticeship Services
- Queensland Seafood Industry
- Tropical North Queensland TAFE
- The Super Yacht Group – Great Barrier Reef
- Transport Distribution and Seafood Industry Training Advisory Board (ITAB)
- Vocational Partnerships Group Inc.
- Yachting Queensland

There is evidence that the sector will band together to achieve specified objectives (eg. attraction of superyacht business, the Maritime College).

The question was raised about whether there is a need for some form of overarching focal point and if so, how it might be achieved.

It is suggested that FNQ Ports has a key role to play in achieving and supporting coordination to achieve wider sectorial objectives.
FNQ MARINE INDUSTRIES CAPABILITY PROFILE

APPENDICES
APPENDIX 1

TERMS OF REFERENCE
CONTRACTOR SERVICES FOR
FNQ MARINE INDUSTRY CAPABILITY PROFILE PROJECT

Introduction
The Queensland Government has committed to establishing six regions across the State as Centres of Enterprise in key industry areas. The Cairns and Far North Queensland region was launched as a Centre of Enterprise in Cairns on 27 June 2007.

Under this initiative, Cairns and Far North Queensland has nominated marine services, regional aviation and tropical expertise as initial target industries for the region’s economic development focus. This study has been identified as an activity under the Cairns and Far North Queensland Marine Centres of Enterprise Action Plan. It aims to assess the capability of the marine sector in Cairns and Far North Queensland.

In relation to marine services, opportunities for growth and expansion in the sector are especially linked to the strength of the region’s tourism industry, particularly as commercial fishing continues to dwindle in response to stricter regulations. The Far North Queensland tourism industry is in turn strengthened by growth in critical mass in the marine sector, providing incentives to visit the region as a combined tourism destination and marine service centre.

Background
The marine industry has been identified as a priority sector by the Department of Tourism, Regional Development and Industry and stakeholders. It contributes $2.6 billion to Queensland’s economy and employs an estimated 11,000 people. Importantly, Queensland is positioned as Australia’s marine recreational powerhouse — the State contributes over 40 percent of all turnover and 67 percent of national exports.

In the last two decades, the marine sector in Cairns has been transformed from a coastal freight and fishing base into a major port centred around a vibrant and expanding marine tourism sector. Significant restructuring has led to a downturn in the fishing industry, with flow on effects to trading vessels. However, a strengthening in marine tourism markets has ensured continued growth in the sector.

Notably, the Cairns region has the largest marine tourism sector in Australia. Cairns Seaport handles more than 10,000 scheduled ferry and tourist vessel arrivals each year. ‘White boat’ (recreational) sectoral activity includes a combination of maintenance, refit and/or provedoring services for superyachts, local charters, recreational boating and cruise liners.

Superyachts
The superyacht industry is already a significant contributor to the region’s marine industry, injecting millions of dollars annually into the local economy. Cairns has had more than 100 visits over the past two years. The region’s drawcard to superyacht owners is convenient access to world-class cruising destinations around the Great Barrier Reef and Torres Strait Islands and high quality support facilities. Cairns currently offers premium berthing for vessels up to 40 metres, well established superyacht maintenance and refit capability and an international airport for direct access by superyacht owners.

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2 Marine Sectoral Unit, Department of Tourism, Regional Development and Industry.
3 Cairns Port Authority Annual Report 2006-07
The superyacht industry is burgeoning worldwide. Given that the maintenance cost for vessels is 10 percent of the purchase price every year, which is an average of $40M. Ancillary spending (spending other than maintenance and refit) is estimated at $10,000 per vessel per day. This includes chandlery and supplies, entertainment, restaurants, land accommodation, tours and charters, translators and other tourism expenditure by passengers and crews. These figures indicate significant input, and growth potential, for the local economy.

An improvement in immigration processes for superyacht crews could stimulate considerable growth in the number of superyacht visits to the region. Of the 7000 vessels worldwide less than one percent of superyachts currently visit Australia each year. However, Cairns is already the most popular superyacht base in Australia and any growth in visit numbers and duration of stay would translate into significant economic outcomes for the region. Benefits would be felt across the entire supply chain including slipways, marinas, and engine servicing and crew training companies.

As world-wide demand for superyachts continues to grow, there is also a strong case for seeking investment in the first superyacht manufacturing facilities in Queensland:

- demand currently exceeds supply with waiting lists of up to six years,
- European shipyards are constricted and expansion opportunities are limited due to the lack of available land with deep water access,
- superyachts are luxury products with purchase decisions predominately based on the product’s quality (rather than cost), ensuring Queensland’s competitiveness against countries with low labour costs such as China, and
- a local superyacht manufacturer would significantly grow the local superyachts cruising and refit industries, drive marine manufacturing technology and innovation in the region, provide local SMEs with supply opportunities, lead to the attraction of higher skilled and higher paid jobs and the production of goods for a global market.

Cruise liners
Cruise liner visits to Cairns have been steadily increasing over the last decade and this growth is expected to continue. In 2000 there were 18 visits to the region and 35 in 2006-07. Cruise ships have a significant impact on the region’s economy through the uptake of marine tourism activities and also offer some provedoring opportunities for local companies. In 2006-07, $7.1M was spent by cruise passengers and crew.

Local charter
The local reef cruise market has grown by just over 14 percent since 2001 with Cairns based cruise arrivals growing from 176 in 2001 to 202 in 2006. Overall scheduled ferry and tourist vessel arrivals have been strong and constant at over 10,000 per annum since 2001. Benefits to the region include charter, refit and maintenance work for local companies. This robust sub-sector has also led to the development of intellectual property among local operations in owning and operating sustainable businesses in a world heritage listed area. There is opportunity to harness this intellectual property and package it as a saleable export.

Grey Boats
The Royal Australian Navy has commenced work on the redevelopment of HMAS Cairns naval base. This will be an investment of $76.3 million in new marine works, wharf upgrades, buildings and property acquisitions to support fleet operations in the north. Many local marine businesses have been contracted for this work.

Three Air Warfare Destroyers are being constructed in South Australia and the Navy is currently outsourcing block work on these vessels. Given the region’s marine expertise, local companies are well placed to capitalise on these opportunities.

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5 Cairns Port Authority Website (http://www.cairnsport.com.au)
Marinas
The region has two premier marinas both offering exceptional access to the Great Barrier Reef:

- Cairns Marlin Marina: a state-of-the-art floating marina in the heart of Cairns, featuring 214 berths accommodating a variety of cruising vessels including superyachts up to 80m. The marina is also close to retail, accommodation and dining facilities, the airport and the Cairns marine and superyacht refit precinct, and
- Marina Mirage Port Douglas: offers 122 berths up to 45 meters all with access to 3-phase power and water. Attached to the marina is a high-class retail and dining complex.
- Half Moon Bay Marina is of pontoon style construction with Comsen units supplying both power and water to 200 berths from 10m to 30m
- Port Hinchinbrook Marina offers a user friendly, modern facility catering for all typers of vessels with berth sizes from under 10m to 45m. Ship servicing facilities are provided by Norship, providing comprehensive maintenance, mechanical and electrical services as well as an 85 tonne ship-lift for all dry-dock servicing.
- The Cairns Port Authority has started construction of a $7M marina project which will see the relocation of the Cairns Yacht Club, retail and restaurant facilities and a new launch ramp.

Ports
Trading Ports
- Lucinda, Mourilyan, Cape Flattery, Karumba, Weipa, Skardon River
Non – Trading Ports
- Cooktown and Burketown
Community Ports
- Thursday Island, Quintell Beach and Horn Island

The trading ports handle bulk export commodities, while the community ports supply neighbouring populations with essential general cargo and fuel. The non-trading ports are held for strategic purposes, should a commercial need arise.

Maintenance and refit services
The Cairns region has one of the most diverse supply chains committed to servicing the marine industry. Sophisticated quality assured maintenance and refit capabilities are available for both commercial and recreational vessels, including superyachts.

Major maintenance and refit is primarily provided by three companies (Tropical Reef Shipyard, Cairns Slipways and Norship Marine). These companies provide the capability to slip vessels up to 80 metres and 1500 tonnes. Cairns Slipways and Tropical Reef Shipyard both have dry docks with the latter having the only floating dry dock (60 metres) in Queensland. New development includes a 400 tonne travel lift at Norship Marine, which significantly increases their previous 160 tonne capacity.

Other notable regional capability includes:
- Dyno testing facilities (through Cummins South Pacific) to superyachts powered by Cummins engines, the only provider of this service in Queensland.
- The only registered repairer of MTU Detroit Diesel 538 series engines (used in superyachts and other cruising boats) outside Germany,
- A registered repairer of Caterpillar engines used in superyachts and cruising boats, and
- Same-day approvals for class renewal and annual inspection of vessels in regard to international classifications.

Boat building
Currently the region houses several boat manufacturers of vessels up to approximately eight metres including speed boats, tinnies and other small recreational vessels.

There is extensive ship and boat building capability in the Cairns area including boat designing and engineering. Vessels that have been manufactured in the region include trawlers, naval patrol vessels, superyachts, general cargo vessels, ore carriers, high-speed catamarans and low-wash high-speed ferries.
Key regional strengths and opportunities
The Cairns and Far North Queensland region is well positioned to deliver sustainable economic growth and regional development in the marine services sector. The region has exceptional geographic advantages and the sector is relatively mature, large and diverse. Sectoral supply chains are well established and the region boasts significant expertise in marine services.

By contrast, relatively little has been done in relation to strategic regional industry development in the sector. This includes formal assessment of the industry’s current capabilities, analysis of opportunities and requirements for economic growth, barriers to growth and strategies for overcoming these barriers.

The Project
The Cairns Centre has identified a need to gain a better understanding of the FNQ marine industry’s capabilities, gaps, impediments to growth and capture opportunities for strengthening inter-regional links with other marine focussed regions outside Cairns, including Townsville, Cardwell, Mission Beach, Innisfail, Weipa, Cooktown and Torres Strait to capitalise on existing infrastructure. To achieve this, the Cairns Centre has developed a Capability Audit Project.

The outcomes of this project will provide the Centre and the broader marine industry with detailed information on capabilities that is needed to underpin evidence-based marketing and industry development activities, including investment attraction. Such activities have been identified in the Cairns and Far North Queensland Centres of Enterprise Marine Services Action Plan.

The following key sub-sectors of the Marine Industry will be covered in this project:
- Specialised boat and ship building
- Sophisticated quality assured maintenance and refit facilities
- Marina capabilities
- Port capabilities
- Marine Transport Services and facilities (international passenger; domestic; regional; tourism; mining; emergency)
- Marine support industries (logistics & handling; fuel; marine operations; catering; freight; safety & regulation)

Current work undertaken
- Economic Profile of the Superyacht Industry – project will provide an indicative valuation of the superyacht industry to Cairns, Mackay and Whitsunday’s regional economy. It is also aimed to raise the profile of the superyacht industry through identifying the benefits and opportunities.
- Superyacht Industry Regulatory Impediments project – project will provide important research and verification regarding the regulatory framework for the marine industry. It is expected this research will clarify evidence received to date, highlight critical issues, and inform stakeholders as to specific action required.
- Cairns International Marine Skills Centre – Demand and Financial Analysis. The objective of this study is to undertake a demand analysis of the marine training industry in Far North Queensland, evaluating the economic benefit resulting from servicing the identified demand, financial analysis to determine the ongoing viability of the Centre and the risk analysis associated with the development of the Centre.

Other relevant work
Other initiative, plans and strategies that impact on the Marine sector or the region:
- Queensland Superyacht Strategy (2008 – 2013) is being developed by the Department of Tourism, Regional Development and Industry, Marine Sectoral Development Unit in consultation with industry stakeholders. The strategy focuses on promoting Queensland as a premier superyacht destination; capacity and capability development of the Queensland based superyacht industry; addressing regulatory impediments; and marine infrastructure developments for the global superyacht industry.
Marine Sector Action Plan is being developed by the Department of Tourism, Regional Development and Industry. It outlines strategies and key actions to ensure Queensland’s marine industry streamlines with the Smart State economy. Such strategies includes availability of skills, appropriate infrastructure and the adoption of innovation and technology.

Tourism Queensland is involved in a number of strategies in the region, the actions of which will either directly impact on or compliment the Cairns marine sector, namely:

- The Adventure Tourism Strategy, currently in development, aims to position Queensland as the premier adventure destination in Australia for domestic and international visitation. Relevant activities include scuba diving, snorkelling and sailing.
- The Recreational Fishing Strategy, currently in development, aims to maximise and sustain the tourism potential of Queensland’s recreational fishing experiences by coordinating development and marketing activities that create sustainable economic and social benefits throughout Queensland. Activities specifically relevant to Cairns include support to fishing tourism businesses in Indigenous communities.
- The Queensland Cruise Shipping Plan provides a whole-of-Government framework for developing cruise shipping and realising Queensland’s natural, cultural, social and economic potential in a sustainable manner.
- The Tropical North Queensland Destination Management Plan aims to drive sustainable tourism development in Queensland’s tourism regions, and
- Once completed the Tropical North Queensland Regional Tourism Investment and Infrastructure Plan will look to encourage tourism and related infrastructure agencies and investors to consider specific investment opportunities.

The FNQ2025 Statutory Regional Plan is currently being developed for Far North Queensland to manage the region’s high population growth and unique environmental features. This plan covers the city of Cairns and extends north to Cape Tribulation and south to Cardwell. It includes the two World Heritage listed areas of the Wet Tropics Rainforest and the Great Barrier Reef. It is important that changes to regulations regarding use of marine environments are considered in the development and implementation of the Centres of Enterprise Marine Services Action Plan.

Review of regulatory environment governing marine infrastructure: The Queensland Government is committed to a regulatory reform agenda which includes the annual targeted review of systemic regulatory issues. The regulatory environment governing marine infrastructure development is proposed as an initial priority area for review by Government. It is intended that this review would be lead by the Queensland Office for Regulatory Efficiency to consider whole of government solutions to address critical regulatory impediments to marine infrastructure developments.

Objective

The objective of this study is to develop a capability profile of the Marine sector in Far North Queensland (Cairns RDC region) in order to determine the sector’s composition, capability, and potential, particularly in terms of competitive and comparative advantages as well as identify any deficits or gaps.

Contractor’s Tasks

1. Develop industry profile - Overview of the industry and its key characteristics, including
   - Size (Number of business and, turnover range)
   - Business capabilities
   - Markets, competition and key competitors
   - Exports –
     - Export Status (Current Exporter; Potential Exporter; Not Exporting)
     - Export Method (Direct Export; Domestic Agent; International Agent; Other)
     - Percentage of Products Exported
     - Export Production Capacity
     - Minimum Export Quantity
     - Current Export Markets
     - Planned Export Markets
   - Labour market trends/wages
   - Fees and charges
   - Key infrastructure (i.e. ports / marina’s).
2. **Determine industry trends and issues** - Identification of key industry trends over the past five years and emerging issues for the sector.

3. **Identify industry demand, growth and impediments** - Analysis of the sector’s historical growth, demand drivers, growth expectations, future growth projections and impediments to growth.

4. **Industry capabilities** - Identify capabilities and deficits of the sector including but not limited to:
   - Products and services
   - Quality standards – ISO 9000 etc
   - Specialised capabilities/equipment
   - Key infrastructure (i.e. marina’s, ports)
   - Skills
   - Capacity.

5. **Identify the major players** in Townsville who operate across into the FNQ region & into Asia-Pacific ports (e.g. PNG) and document capabilities as per task 4 and include them in tasks 6 & 7.

6. **Determine industry competitiveness** – Analyse the sectors competitive position including:
   - Competitive and comparative advantages
   - Infrastructure, skills, products, services, fees and charges
   - Major competitors, their location and capabilities.

7. **Development of capability / competitiveness matrix** – for easy reference summarising key capabilities against competitiveness/competitors.

8. **SWOT Analysis** - A summary of the strengths, weaknesses, opportunities and threats for the sector.

9. **Develop actions and strategies based on SWOT** - Discussion of the key factors that need to be addressed to encourage growth and investment and suggested actions and strategies in response. Actions and strategies should be clearly articulated and realistic and measurable.
Survey Letter & Questionnaire Form

FNQ MARINE INDUSTRIES CAPABILITY PROFILE

CUMMINGS ECONOMICS
38 Grafton St (PO Box 2148) CAIRNS Q 4870
Tel 07 4031 2888  Fax 07 4031 1108
Email cummings@cummings.net.au
Website: www.cummings.net.au

August 2008

FNQ MARINE INDUSTRIES
CAPABILITY PROFILE PROJECT

As part of its “Centres of Enterprise” program, the Queensland Department of Tourism, Regional Development and Industry have asked Cummings Economics to develop a capability audit to profile the marine industries’ composition, potential, comparative advantages and deficits in the Cairns/Far North Queensland region to assist with:

- evidenced based marketing of the sector
- industry development and investment attraction activities.

As an important business in the sector, we would value your input:

= To first, help us profile the sector.
= To assist identify issues and trends.
= To work with us to identify actions that need to be taken to help progress the sector.

We would be grateful for your assistance in completing the attached questionnaire and returning it in one of the ways shown. Alternatively, we will contact you to provide an opportunity to respond over the telephone.

If you have any queries, please do not hesitate to contact us on telephone 4031 2888.

Yours sincerely

Bill Cummings

ABOUT CUMMINGS ECONOMICS

Cummings Economics has been providing economic research services based in Cairns since 1981.

Principal of the firm, W S (Bill) Cummings, is one of Australia’s most experienced regional business economists with formative experience at a national policy level in Canberra, and long and extensive experience of working in and analysing regional industries, economic structures and trends in northern Australia.

Further information www.cummings.net.au
Questionnaire

BACKGROUND: Cummings Economics have been asked by the Department of Tourism, Regional Development and Industry, to develop a capability audit to profile the marine industries' composition, potential, comparative advantages and deficits in the Cairns/Far North Queensland region.

ABOUT CUMMINGS ECONOMICS: Cummings Economics is a professional economic and market research firm that has been operating from a base in Cairns since 1981. Further information is available on www.cummings.net.au

ACCURACY: If you find it difficult to give accurate figures, we would prefer an estimate rather than no response.

CONFIDENTIALITY: Your individual responses will be treated as confidential. Reports produced will only provide aggregate information and responses of individuals will not be able to be identified. If you require a letter of guarantee of confidentiality, please let us know.

QUERY: If there is any aspect you would like to discuss, please telephone us on 4031 2888.

We would be grateful if you could respond to the following questions in any one of the following ways:

RESPONSE: Ways to respond:
- Complete and Email us at cummings@cummings.net.au.
- Complete and post back in the enclosed reply paid envelope.
- Complete and post back to Cummings Economics, PO Box 2148, Cairns Qld 4870.
- Complete and fax to 4031 1108.
- Telephone us on 4031 2888 and arrange to complete it over the telephone.

(1) NAME OF BUSINESS: ........................................................................................................................................

ADDRESS: ...................................................................................................................................................

CONTACT NAME: ................................................................................................................................................

CONTACT: Tel: ................................................................................................ Fax: ...................................................

Email.................................................................................................................................................................

PART (A) INDUSTRY PROFILE

(2) TYPE OF BUSINESS & CAPABILITIES
(a) Description of type of business activities carried out:

(b) In which of the following industry sectors do you operate?

<table>
<thead>
<tr>
<th>Vessel Operations</th>
<th>Please ✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cargo operations</td>
<td></td>
</tr>
<tr>
<td>2 Fishing (commercial)</td>
<td></td>
</tr>
<tr>
<td>3 Defence/Government</td>
<td></td>
</tr>
<tr>
<td>4 Marine Tourism/Recreation</td>
<td></td>
</tr>
<tr>
<td>5 Cruise ships</td>
<td></td>
</tr>
<tr>
<td>6 Visiting yachts</td>
<td></td>
</tr>
</tbody>
</table>

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Tel: 07 40312888 Email: cummings@cummings.net.au

August 2008

Ref: J2103

Page 163/179
Shipbuilding/Maintenance/Supplies
7 Ship and boat building
8 Slipways and dry storage
9 Equipment supplies and repairs
10 Other supplies to marine industries (eg., fuel, water, victualling)

Other Services
11 Port/Marina operations
12 Terminals and warehousing
13 Fish processing/Sales etc.
14 Government services
15 Agency and other services to marine industries

Others
16 Export cargo generation (mining, agriculture, forestry, etc.)
17 Inward cargo generation (fuels, fertilizers)
18 Other (record)

(c) Description of type of capability/equipment used in the business:

(d) Description of special capability/skills in the business:

(e) Description of any special quality standards achieved in the business (eg., ISO's):

(3) MARKETS & COMPETITION

(a) What market areas do you cover and approximate percent of business in that area and any special products/services sold to that area?

<table>
<thead>
<tr>
<th></th>
<th>(Please ✓ response)</th>
<th>% of Business</th>
<th>Products/Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cassowary Coast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tablelands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qld Gulf (Karumba, Weipa, etc)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peninsula</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torres Strait/NPA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Townsville region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whitsundays</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mackay region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mt Isa/North West</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Qld/details:.................................</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nthn Territory/details:..................................</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Aust/details:..................................</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas (Go to Q5)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(b) Where are your key competitors located and who are they in each of those areas?

<table>
<thead>
<tr>
<th>Location</th>
<th>Key Competitors (please write in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairns</td>
<td></td>
</tr>
<tr>
<td>Cassowary Coast</td>
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<tr>
<td>Douglas</td>
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<tr>
<td>Tablelands</td>
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<tr>
<td>Gulf of Carumba, Weipa, etc</td>
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<tr>
<td>Peninsula</td>
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<tr>
<td>Torres Strait/NPA</td>
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<td>Townsville region</td>
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<td>Whitsundays</td>
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<td>Mackay region</td>
<td></td>
</tr>
<tr>
<td>Mt Isa/North West</td>
<td></td>
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<tr>
<td>Other details</td>
<td></td>
</tr>
<tr>
<td>Other Aust details</td>
<td></td>
</tr>
</tbody>
</table>

(4) EXPORTS OUTSIDE AUSTRALIA

(a) Current exporter? (Please ✓)

<table>
<thead>
<tr>
<th>Where to?</th>
<th>Type of product?</th>
<th>Current volume?</th>
<th>Export capacity limits</th>
<th>Further comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Yes: [ ] No: [ ]

(b) Planned export expansion (Please ✓)

<table>
<thead>
<tr>
<th>When?</th>
<th>Where to?</th>
<th>Type of product?</th>
<th>Volume?</th>
<th>Further comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Yes: [ ] No: [ ]

(c) Potential exporter (Please ✓)

<table>
<thead>
<tr>
<th>Type of product?</th>
<th>Minimum Quantity</th>
<th>Export capacity limits</th>
<th>Further comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

Yes: [ ] No: [ ]

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August 2008
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December 2008
Ref: J2103
Page 165/179
(d) What are the key factors affecting your export competitiveness?

(5) WORKFORCE

Are there any labour market trends affecting your business?

(6) INFRASTRUCTURE

(a) Is there any current key infrastructure that is particularly important to the viability/attractiveness of your business?

(b) To what degree is your business dependent on the capabilities of other businesses?

(Please circle response)

<table>
<thead>
<tr>
<th>Other businesses (please name):</th>
<th>Very dependent</th>
<th>Moderately</th>
<th>Marginally</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

PART (B) INDUSTRY TRENDS & ISSUES

(7) TRENDS

(a) What have been the major factors driving demand in your sector?

(b) What industry trends have there been over the past five years?

(i) Affecting your markets:

(ii) Affecting your competitiveness:
(8) ISSUES
(a) What emerging issues are likely to:
   (i) Affect your markets:

   (ii) Affect your competitiveness:

(9) SWOT ANALYSIS
(a) What do you believe are the major strengths of the maritime industries sector in the region?

(b) What do you believe are the major weaknesses of the maritime industries sector in the region?

(c) What do you believe will provide the major opportunities for growth in your sector in the coming years?

(d) What do you believe will prove to be major threats to growth of your sector in the coming years?

(10) GROWTH
(a) What future level of growth do you see occurring in your sector over the next 5 to 10 years?
Sector? (please name from Question 2(b))

<table>
<thead>
<tr>
<th>Extent of growth over that period:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next 5 years - Total: ............... or Per annum: .......................</td>
</tr>
<tr>
<td>Next 6 to 10 years - Total: ............... or Per annum: .......................</td>
</tr>
</tbody>
</table>
PART (C) FUTURE ACTION

(11) FUTURE ACTION

What are the key actions you would like to see taken to improve the sector’s prospects in future years?

(i) By the sector in general:

(ii) By specific firms/organisations (specify which):

(iii) By port authorities:

(iv) By government in general:

PART (D) OTHER COMMENTS

(12) SIZE OF BUSINESS

Employment related to marine activities (est average 2007/08):

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>(a)</td>
</tr>
<tr>
<td>Part-time/Casual</td>
<td>(b)</td>
</tr>
<tr>
<td>(number)</td>
<td></td>
</tr>
<tr>
<td>Est full-time equivalent</td>
<td></td>
</tr>
<tr>
<td>Total (a) + (b)</td>
<td></td>
</tr>
</tbody>
</table>

Estimated approximate turnover 2007/08 (related to the marine industries): $\ldots\ldots\ldots\ldots$

(13) OTHER COMMENTS

Do you have any other comments or suggestions that might be of assistance?

Thank You For Your Assistance

Please be assured your responses will be confidential.
If there is any aspect you wish to discuss, please telephone Bill Cummings 4031 2888.

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Tel: 07 4031 2888 Email: cummings@cummings.net.au

August 2008
Ref: J2103

Page 168/179
## List of Persons and Organisations Contacted

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Raptis &amp; Sons</td>
<td>Phil Robson, Acting Northern Operations Manager</td>
</tr>
<tr>
<td>AAA Livestock Services</td>
<td>Angus Adnam</td>
</tr>
<tr>
<td>Access Cold &amp; Dry Storage</td>
<td>Lou Garrozzo, Manager</td>
</tr>
<tr>
<td>Aimtek</td>
<td>Mark Fry, Executive Director</td>
</tr>
<tr>
<td>Ainsure</td>
<td>Paul Goodall</td>
</tr>
<tr>
<td>All Marine Electrics</td>
<td>Greg Struber</td>
</tr>
<tr>
<td>Andy Guarrera Electrical</td>
<td>Andy Guarrera</td>
</tr>
<tr>
<td>ANL</td>
<td>Zoran Stojcevski, Commercial Department</td>
</tr>
<tr>
<td>Ansell Engineering</td>
<td>Andrew Ansell</td>
</tr>
<tr>
<td>AQIS Cairns</td>
<td>Michael Holmes, Cargo Manager – Cairns</td>
</tr>
<tr>
<td>Aqua-Cat</td>
<td>Peter Todd, Manager</td>
</tr>
<tr>
<td>Austasia Seafood</td>
<td>Jay Clark, Manager</td>
</tr>
<tr>
<td>Austek</td>
<td>Adam/Alison</td>
</tr>
<tr>
<td>Austral Fisheries</td>
<td>John McKenna, Cairns Manager</td>
</tr>
<tr>
<td>Australian Banana Growers Council</td>
<td>Tony Heidrich, CEO</td>
</tr>
<tr>
<td>Australian Customs Service</td>
<td>John Kerlin, Director Enforcement Oper – Reg Qld</td>
</tr>
<tr>
<td>Australian Customs Service</td>
<td>Steve Clark</td>
</tr>
<tr>
<td>Australian Customs Service</td>
<td>Manuel Herrera</td>
</tr>
<tr>
<td>Australian Mango Industry Association</td>
<td>Trevor Dunmall, Industry Development Manager</td>
</tr>
<tr>
<td>Australian Marine Training Network Cairns</td>
<td>Kim Andersen, Project Manager</td>
</tr>
<tr>
<td>Australian Maritime Safety Authority</td>
<td>Annaleise Caston</td>
</tr>
<tr>
<td>Australian Reef Pilots</td>
<td>Nigel McGee, Accountant</td>
</tr>
<tr>
<td>Australian Volunteer Coastguard</td>
<td>Jim Bramich</td>
</tr>
<tr>
<td>Australian Volunteer Coastguard</td>
<td>Neville &amp; Kathy Goggi</td>
</tr>
<tr>
<td>Australian Volunteer Coastguard</td>
<td>Helen</td>
</tr>
<tr>
<td>Australian Volunteer Coastguard</td>
<td>Ed Connor</td>
</tr>
<tr>
<td>Australian Volunteer Coastguard</td>
<td>Jeff Anderson</td>
</tr>
<tr>
<td>Australian Volunteer Coastguard</td>
<td>Jim Wickerson</td>
</tr>
<tr>
<td>Avocados Australia</td>
<td>Jim Kochi, Director North Queensland</td>
</tr>
<tr>
<td>B.C.C.S.</td>
<td>Bruce Cock</td>
</tr>
<tr>
<td>Bang Electric</td>
<td>Henrik Bang</td>
</tr>
<tr>
<td>Battery World Cairns</td>
<td>Kerry Boyd</td>
</tr>
<tr>
<td>Big Cat- Green Island Reef</td>
<td>Kim Thomas, Managing Director</td>
</tr>
<tr>
<td>Bennell Customs Agency</td>
<td>Bill Vandruten</td>
</tr>
<tr>
<td>Boral Masonry</td>
<td>Kirk Lang, Manager</td>
</tr>
<tr>
<td>BP</td>
<td>Tim Donnelly, Regional Operations Manager</td>
</tr>
<tr>
<td>BP</td>
<td>Jon Proctor, Terminal Manager</td>
</tr>
<tr>
<td>BP</td>
<td>John Moore</td>
</tr>
<tr>
<td>BP</td>
<td>Bill Murphy</td>
</tr>
<tr>
<td>Brian Swinton Marine Electronics</td>
<td></td>
</tr>
<tr>
<td>Brunei Meat Export Company</td>
<td>Gadafi Mokti</td>
</tr>
<tr>
<td>Cairns Chart Correcting Agency/Pounder Navigational Services</td>
<td>Ruth Pounder</td>
</tr>
<tr>
<td>Company Name</td>
<td>Contact Person</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Cairns Cold Trans</td>
<td>Gary Halter</td>
</tr>
<tr>
<td>Cairns Compressors &amp; Generator Service</td>
<td>Karen, Commodore</td>
</tr>
<tr>
<td>Cairns Cruising Yacht Squadron</td>
<td>Doug Macleod, Commodore</td>
</tr>
<tr>
<td>Cairns Custom Craft</td>
<td>Marcel Maujean</td>
</tr>
<tr>
<td>Cairns Diesel Service</td>
<td>Debbie &amp; John Ryde</td>
</tr>
<tr>
<td>Cairns Discount Diving/Rumrunner</td>
<td>Richard Bartlett, Owner</td>
</tr>
<tr>
<td>Cairns Marble</td>
<td>Dino Spralja</td>
</tr>
<tr>
<td>Cairns Marine</td>
<td>Lyle Squire Junior, Director</td>
</tr>
<tr>
<td>Cairns Marine Electrics</td>
<td>Dave, Admin Manager</td>
</tr>
<tr>
<td>Cairns Ports</td>
<td>Chris Boland</td>
</tr>
<tr>
<td>Cairns Ports</td>
<td>Michael Barnett</td>
</tr>
<tr>
<td>Cairns Scuba Air</td>
<td>Brad &amp; Rosa Croft</td>
</tr>
<tr>
<td>Cairns Slipways</td>
<td></td>
</tr>
<tr>
<td>Cairns Sportfishing</td>
<td>Kim Andersen, Manager</td>
</tr>
<tr>
<td>Cairns Steel Fabricators</td>
<td>Sean Adams, General Manager</td>
</tr>
<tr>
<td>Cairns Wholesale Paints</td>
<td>Paul Weeks</td>
</tr>
<tr>
<td>Calcifer Industrial Minerals/Koolgarra Mining</td>
<td>Roger May, Senior Consultant</td>
</tr>
<tr>
<td>Caltex Petroleum</td>
<td>Justin Marshall, Facility Coordinator</td>
</tr>
<tr>
<td>Camplin Dive Services</td>
<td>Warwick Camplin</td>
</tr>
<tr>
<td>Cape Flattery Silica Mine</td>
<td>Peter Wickham, General Manager</td>
</tr>
<tr>
<td>Carnival Australia</td>
<td>John Nell, Shore Operations Director</td>
</tr>
<tr>
<td>Carpentaria Contracting</td>
<td>Vance Wallin, Pres Western Cape Chamber of Commerce</td>
</tr>
<tr>
<td>Carpentaria Fuels</td>
<td>Greg Campbell</td>
</tr>
<tr>
<td>Carpet Bob</td>
<td></td>
</tr>
<tr>
<td>Carter Marine Agencies</td>
<td>Carrie Carter, Manager</td>
</tr>
<tr>
<td>Casco Refrigeration Services</td>
<td>Don Casalegno</td>
</tr>
<tr>
<td>Cashcor Engineering</td>
<td>Gavin, Owner</td>
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<tr>
<td>CJ Durham Engineering</td>
<td>Carl &amp; Jan Durham</td>
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<td>CJH Yacht Services</td>
<td>Chris Hedley</td>
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<td>Julian</td>
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<tr>
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<td>Mark Fifield, General Manager</td>
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<td>Peter Twine, CEO, Biotechnology</td>
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<td>Joy Weston, Owner</td>
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<td>Custom Far North Upholstery</td>
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<td>Cyclone Boats</td>
<td>Ryan Lacco, Owner</td>
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<tr>
<td>Cypher Research Laboratories</td>
<td>John Rogge, Research Director</td>
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<tr>
<td>D.G. Edwards Electrical</td>
<td>David Edwards</td>
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<tr>
<td>David Nix</td>
<td>Potato Growers Rep</td>
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<tr>
<td>Defence Maritime Services or DMS</td>
<td>Roger Scovell, Business Unit Manager, Northeastern Australia</td>
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<td>Dept of Immigration &amp; Citizenship</td>
<td>Adrian Kelson</td>
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<tr>
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<td>Mark Jackson, Production Manager</td>
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<tr>
<td>Dragon Flite Services</td>
<td>Daryl Norris</td>
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<tr>
<td>East Coast Trawl Fisherman</td>
<td>Gary Wicks, East Coast Trawl Fisherman</td>
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<tr>
<td>Name of Business/Service</td>
<td>Name of Contact</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
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<tr>
<td>Ecstasea Sail/Dive Budget</td>
<td>Jim, Owner</td>
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<tr>
<td>Electro-Shine</td>
<td>Terry &amp; Laurette Johns</td>
</tr>
<tr>
<td>Electrotech</td>
<td>Bernard Dent</td>
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<tr>
<td>Elite Earthmoving &amp; Training Services North Queensland</td>
<td>Brett Portelli, Director</td>
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<tr>
<td>Endeavour Shipping</td>
<td>Ian Perrott, Owner</td>
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<tr>
<td>English Engineering</td>
<td>Pat English</td>
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<td>Explorer Ventures</td>
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<tr>
<td>Fisherman - Gulf trawling &amp; GNM Chandlery</td>
<td>Teresa &amp; Les Lowe</td>
</tr>
<tr>
<td>Fisherman – Live Fish</td>
<td>Sean Stiff</td>
</tr>
<tr>
<td>Fisherman – T1</td>
<td>Rosemary Millwood</td>
</tr>
<tr>
<td>Fisherman – Trawling</td>
<td>Neil Chitty</td>
</tr>
<tr>
<td>Fisherman – Trawling</td>
<td>Billy Izard</td>
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<tr>
<td>Fishermans Wharf</td>
<td>Ann Williams</td>
</tr>
<tr>
<td>Flying Fish Point Slipway</td>
<td>Rick Gore, Owner</td>
</tr>
<tr>
<td>Frank Bosnic</td>
<td>Lycchee Grower Representative</td>
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<tr>
<td>Fruit Bat Marine Compass Adjusting</td>
<td>Mark Bresman</td>
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<td>G.P. Engineering</td>
<td>Gordon Patterson</td>
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<td>Gary Ward</td>
<td>Barra fisherman &amp; Gulf</td>
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<td>GNM Chandlery &amp; Gulf Net Mending</td>
<td>Theresa &amp; Les Lowe</td>
</tr>
<tr>
<td>Great Adventures</td>
<td>Tony Baker, Managing Director</td>
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<tr>
<td>Great Barrier Reef Marine Park Authority</td>
<td>Doon McColl, Regional Liaison Manager</td>
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<tr>
<td>Great Barrier Reef Tuna</td>
<td>Bob Lamason</td>
</tr>
<tr>
<td>Great Barrier Reef Tuna</td>
<td>Chris Edwards</td>
</tr>
<tr>
<td>Growcom</td>
<td>Mark Panitz, Manager Advocacy &amp; Policy</td>
</tr>
<tr>
<td>Growcom</td>
<td>Matthew Whittle, Banana Industry Development Officer</td>
</tr>
<tr>
<td>Growcom</td>
<td>Julie Moore, Pineapple Industry Development Officer</td>
</tr>
<tr>
<td>Gulf Agency Company (Australia)</td>
<td>Terry Flint</td>
</tr>
<tr>
<td>Haden</td>
<td>Stephen Beck, Service Manager</td>
</tr>
<tr>
<td>Hai Win Shipping</td>
<td>Robin Bedford</td>
</tr>
<tr>
<td>Half Moon Bay Marina</td>
<td>Jill (Yorkeys Training Knob Boating Club)</td>
</tr>
<tr>
<td>Harbourside Coldstore</td>
<td>Brian Wood, Service Manager</td>
</tr>
<tr>
<td>Hastings Deering</td>
<td>Gary Pennell</td>
</tr>
<tr>
<td>Hetherington Kingsbury Shipping – McArthur Shipping &amp; Agency</td>
<td>David Christian</td>
</tr>
<tr>
<td>Hillgrove Resources</td>
<td>Russell Middleton, Chief Financial Officer</td>
</tr>
<tr>
<td>Horticulture Access Solutions</td>
<td>Michael Daysh, Manager</td>
</tr>
<tr>
<td>Icon Resources</td>
<td>Darcy Milburn, Exploration Manager</td>
</tr>
<tr>
<td>Inchcape Shipping Services</td>
<td>Chris Dunn, Manager</td>
</tr>
<tr>
<td>Incitec Pivot</td>
<td>Paul Rylewski, Cairns Manager</td>
</tr>
<tr>
<td>Industrial &amp; Marine Electrics</td>
<td>Philip Whish-Wilson</td>
</tr>
<tr>
<td>Innisfail Banana Growers</td>
<td>Mark Nucifora</td>
</tr>
<tr>
<td>InterMet Resources</td>
<td>Gary Ferris, Managing Director</td>
</tr>
<tr>
<td>Island Point Slipways</td>
<td>Steve</td>
</tr>
<tr>
<td>James Marine Electronics</td>
<td>Ron James</td>
</tr>
<tr>
<td>JD Marine Enterprizes</td>
<td>Jason</td>
</tr>
<tr>
<td>Jenkins Rubber Shop</td>
<td>Tracey Barnes</td>
</tr>
<tr>
<td>Johnstone River Slipway through Innisfail First National</td>
<td>John Crowley, Innisfail First National</td>
</tr>
</tbody>
</table>
# FNQ Marine Industries Capability Profile

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Contact Person</th>
</tr>
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<tbody>
<tr>
<td>JP Xpress Cold Storage</td>
<td>John Petersen, Manager</td>
</tr>
<tr>
<td>Kagara Ltd</td>
<td>Graeme Collins, Operations Manager</td>
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<tr>
<td>Karumba Livestock Loading</td>
<td>Peter Hodgson, Manager</td>
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<tr>
<td>Kenneth Aquamarine Products Aust</td>
<td>Chee Loh, Financial Officer</td>
</tr>
<tr>
<td>KG Mechanical Services</td>
<td>Kent Fulton</td>
</tr>
<tr>
<td>Koolgarra Mining</td>
<td>David Lockwood</td>
</tr>
<tr>
<td>Koolgarra Mining</td>
<td>Roger May</td>
</tr>
<tr>
<td>Kraken Marine Services</td>
<td>Robert Van Der Moigg</td>
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<tr>
<td>Kraken Yachts</td>
<td>Gabrielle Wood</td>
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<tr>
<td>Kyoma Shipping Co thru Hetherington</td>
<td>David Christian, Hetherington Kingsbury Shipping Agency</td>
</tr>
<tr>
<td>Livestock Express Dens Ocean</td>
<td>Henrik Nissen, General Manager</td>
</tr>
<tr>
<td>Luxury Yacht Refinishers</td>
<td>Dave Rendell</td>
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<tr>
<td>MacKay Estates</td>
<td>Stephen MacKay, Director</td>
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<tr>
<td>Mantle Mining Corporation</td>
<td>Ian Kraemer, Managing Director</td>
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<tr>
<td>Maritime Safety Old</td>
<td>Captain Alan Boath, Harbour Master Cairns Region</td>
</tr>
<tr>
<td>Maritime Safety Old</td>
<td>Anastacia Eastman, Acting Regional Office Manager</td>
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<tr>
<td>Marlec Electrics</td>
<td>Steve Johnson, Owner/Manager</td>
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<tr>
<td>Meridien Marinas Port Douglas</td>
<td>Margaret Macdonald, Development Manager</td>
</tr>
<tr>
<td>Meridien Marinas Port Douglas</td>
<td>Jason Roles, General Manager- PD</td>
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<tr>
<td>Metallica Minerals</td>
<td>Bob Martin, Project Manager-Nornico</td>
</tr>
<tr>
<td>Metricon – Sea Borne</td>
<td>Shaun Nicholson</td>
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<tr>
<td>Metricon- Sea Haven</td>
<td>Shaun Nicholson</td>
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<tr>
<td>Miles Electronics</td>
<td>Debbie</td>
</tr>
<tr>
<td>Mitchell’s Marine</td>
<td>Wayne &amp; Sally Bayne</td>
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<tr>
<td>Moana Charters</td>
<td>Daniel McCarthy, Manager</td>
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<tr>
<td>MTU Detroit Diesel</td>
<td>Neal Rose, Branch Manager – Cairns and Townsville</td>
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<tr>
<td>N.Q. Container Services</td>
<td>Ian Hocking, Manager</td>
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<tr>
<td>National Road Freighters Association</td>
<td>Mick Pattle, President</td>
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<tr>
<td>Net, Line &amp; Crab Fisherman &amp; Export Facility</td>
<td>Bruce Batch</td>
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<tr>
<td>Norship Marine</td>
<td>Lee Pickering</td>
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<td>North Queensland Metals</td>
<td>Peter Brown, Project Manager</td>
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<td>Northern Barrier Marine Life</td>
<td>Fenton</td>
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<tr>
<td>Northern Boat Building Services</td>
<td>Chris Dunn</td>
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<tr>
<td>Northern Insulation Services</td>
<td>George McKewen</td>
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<tr>
<td>Northern Stevedoring Services</td>
<td>Todd Emmert, General Manager</td>
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<tr>
<td>NQ Banana Growers Co-op Association</td>
<td>Barry Kanowski, CEO</td>
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<tr>
<td>NQ Plastics</td>
<td>Col</td>
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<tr>
<td>NQ Timber Coop</td>
<td>Max Bryant, Manager</td>
</tr>
<tr>
<td>NQ Trawler Supplies</td>
<td>Marshall Betzel, Prawn Buyer</td>
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<tr>
<td>Ocean Spirit Cruises</td>
<td>Patrick Bluett, Manager</td>
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<td>One Harvest</td>
<td>Sarah Faris, Sales &amp; Export Manager</td>
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<tr>
<td>Opal Marine</td>
<td>Rod Lacco, Owner</td>
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<tr>
<td>Ozmin</td>
<td>Greg Scanlan, Ozmin Karumba Port Manager</td>
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December 2008
Ref: J2103
## FNQ Marine Industries Capability Profile

<table>
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<tr>
<th>Company</th>
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<tbody>
<tr>
<td>Pacific Nautical Services</td>
<td>Rob Murphy</td>
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<tr>
<td>Papyrus Australia</td>
<td>Grant Pigot, Chief Operating Officer</td>
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<tr>
<td>Pasma Electrical</td>
<td>Hank</td>
</tr>
<tr>
<td>Passions of Paradise</td>
<td>Alan Wallish, Managing Director</td>
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<tr>
<td>Perkins Shipping</td>
<td>Peter Hopton, Executive Director</td>
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<tr>
<td>Perkins Shipping</td>
<td>Tycho Bunnigh, Executive Director</td>
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<tr>
<td>Perrott Engineering</td>
<td>John Perrott</td>
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<tr>
<td>Perrott Marine Group</td>
<td>Ian Perrott</td>
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<tr>
<td>Pinata Marketing</td>
<td>Stephen Scurr, Director</td>
</tr>
<tr>
<td>Port of Call</td>
<td>Mick and Lynda</td>
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<tr>
<td>Portsmith Fuel</td>
<td>Kevin Lock, Manager</td>
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<tr>
<td>Private Forestry NQ Association</td>
<td>David Skelton, Executive Officer</td>
</tr>
<tr>
<td>Pro Dive</td>
<td>Rod Punshon, Manager</td>
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<tr>
<td>Purtle’s Engineering</td>
<td>Noel Purtle</td>
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<tr>
<td>Qld Charter Vessels Association</td>
<td>Bill Edwards, President</td>
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<tr>
<td>Qld DPI</td>
<td>Peter Leach, Senior Entomologist, Horticulture &amp; Forestry Science Delivery</td>
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<td>Qld DPI &amp; Fisheries</td>
<td>Ian Smith, Station Manager</td>
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<tr>
<td>Qld DPI &amp; Fisheries</td>
<td>Nadia Engstrom, Data Manager</td>
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<tr>
<td>Qld DPI South Johnstone</td>
<td>Stewart Lindsay</td>
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<tr>
<td>Queensland Ores</td>
<td>Dan Mundy, Operations Manager</td>
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<td>Queensland Ship Surveyors</td>
<td>Graeme Normington</td>
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<td>QuickSilver Group</td>
<td>Tony Baker, Managing Director</td>
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<td>Ravenshoe Timbers</td>
<td>Doug Simms</td>
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<td>Royal Australian Navy</td>
<td>Ted Cummins, Executive Officer</td>
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<tr>
<td>Ruby Marine Engineering</td>
<td>Paul Baetsen</td>
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<td>Russ Larkin &amp; Associates</td>
<td>Russ &amp; Steve Larkin</td>
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<tr>
<td>Ryans Radiators &amp; Airconditioning</td>
<td>Peter Heath</td>
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<td>S.I.M. Trans</td>
<td>Mindy</td>
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<tr>
<td>Scuba Quip Services</td>
<td>John Sando</td>
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<td>Scubaversity (Diversity Training Solutions)</td>
<td>Jinene White, Director</td>
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<tr>
<td>Sea Swift</td>
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<td>Seabourne Electronics</td>
<td>Paul Weldon</td>
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<td>Seafresh Australia</td>
<td>Rob Lowden</td>
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<tr>
<td>Seafury International</td>
<td>C/- The Big Boat Shed</td>
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<tr>
<td>SEALS (South East Asia Livestock Services)</td>
<td>Sid Parker</td>
</tr>
<tr>
<td>Seaports Australia</td>
<td>David Duggan</td>
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<tr>
<td>Sharplift Marine &amp; Industrial</td>
<td>Michael Paridaen</td>
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<td>Shell</td>
<td>Gok Sevimli, Northern Region Manager</td>
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<tr>
<td>ShoreWeld Engineering</td>
<td>Jeff</td>
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<td>Skardon River</td>
<td>David Hockey,</td>
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<td>Solomon’s Flooring</td>
<td>Nick Emerton</td>
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<td>SonarTech ATLAS</td>
<td>Mark Hegarty</td>
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<td>Spencer Marine Engineering</td>
<td>Jim Spencer</td>
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<tr>
<td>Steritech</td>
<td>Kevin Ould, General Manager</td>
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<tr>
<td>Stewart Marine Design</td>
<td>Richard Stewart</td>
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<tr>
<td>Sugar Bag Australia</td>
<td>Brian &amp; Robert Henry, Owners</td>
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- FNQ Marine Industries Capability Profile –

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Svitzer Australia</td>
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<td>Telesat</td>
<td>John Chapple</td>
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<td>The Big Boat Shed</td>
<td>Ralph &amp; Helen Seed</td>
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<tr>
<td>Timber Queensland</td>
<td>Rod McInnes</td>
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<tr>
<td>Torres Pilots</td>
<td>Perry Sutton, Manager</td>
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<tr>
<td>Tropic Engineering</td>
<td>Rob Paron</td>
</tr>
<tr>
<td>Tropical Reef Shipyard</td>
<td>Robert Downing, General Manager</td>
</tr>
<tr>
<td>Tropicnet</td>
<td>Matthew</td>
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<tr>
<td>Upholstery Works</td>
<td>Patrick Roberts</td>
</tr>
<tr>
<td>Vital Metals</td>
<td>Andy Haslam, Managing Director &amp; CEO</td>
</tr>
<tr>
<td>Waratah Coal</td>
<td>Peter Lynch, President</td>
</tr>
<tr>
<td>Water Police</td>
<td>Acting Sergeant Chris Uprichard, Marine Operations Base</td>
</tr>
<tr>
<td>Watson River Station</td>
<td>Doreen Quartermaine, Live cattle exports</td>
</tr>
<tr>
<td>Wilhelmsen Ships Service</td>
<td>Martin Harrison</td>
</tr>
<tr>
<td>Wren Coldstores</td>
<td>David &amp; Jennifer Wren</td>
</tr>
</tbody>
</table>
REFERENCES

- Cairns Seaport Port Notices - Cairns Port Authority, July 2008.
- Queensland Cruise Shipping Plan – Tourism Q’ld (undated).
# APPENDIX 5

## PORT CHARGES

<table>
<thead>
<tr>
<th>CAIRNS</th>
<th>$ (inclusive of GST)</th>
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<tbody>
<tr>
<td>- Harbour dues</td>
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<tr>
<td>- Animals – import and export</td>
<td>$/head 1.44</td>
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<tr>
<td>- Break bulk/general cargo - import</td>
<td>$/tonne 3.45</td>
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<tr>
<td>- Break bulk/general cargo - export</td>
<td>$/tonne 2.80</td>
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<tr>
<td>- Containers – empty – import and export</td>
<td>$/TEU 9.34</td>
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<tr>
<td>- Containers- full or part containing seafood - import</td>
<td>$/tonne 11.97</td>
</tr>
<tr>
<td>- Containers- full or part containing seafood - export</td>
<td>$/tonne 11.97</td>
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<tr>
<td>- Containers – full or part ex seafood- import &amp; export</td>
<td>$/TEU 59.41</td>
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<td>- Fertiliser - import</td>
<td>$/tonne 2.58</td>
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<tr>
<td>- LPG - import</td>
<td>$/tonne 3.82</td>
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<tr>
<td>- Minerals- import and export</td>
<td>$/tonne 2.43</td>
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<tr>
<td>- Molasses – export</td>
<td>$/tonne 2.15</td>
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<tr>
<td>- Petroleum based products- import</td>
<td>$/m3 3.34</td>
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<tr>
<td>- Petroleum based products- export</td>
<td>$/m3 1.59</td>
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<td>- Seafood – import</td>
<td>$/tonne 11.97</td>
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<tr>
<td>- Seafood – export</td>
<td>$/tonne 11.97</td>
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<tr>
<td>- Sugar (raw) – export</td>
<td>$/tonne 2.27</td>
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<tr>
<td>- Scrap Metal – import and export</td>
<td>$/tonne 2.28</td>
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## Passenger Levies

- Vessels based in Cairns
  - Charge per passenger $/pax 1.13
  - Port dues $/pax 0.10

- Vessels not based in Cairns
  - Passenger charge (transit) $/pax 2.59
  - Passenger charge (embark/disembark) $/pax 3.850
  - Port dues $/pax 0.10

## Tonnage dues

### Berthage

#### WEIPA

- Harbour dues
  - Ship loading or unloading cargo that has a gross tonnage of more than 3 000 GRT 0.6743
  - For ships with a gross tonnage of less than or equal to 3 000 GRT and loading or unloading cargo that weighs more than 3 000 tonnes for each 48 hour period or part thereof 0.2354
  - For ships with a gross tonnage of less than or equal to 3 000 GRT and loading or unloading cargo that weighs less than or equal to 3000 tonnes for each 48 hour period or part of the period 0.1397

- Live Animals $/head 0.99

#### MOURLILYAN

- Harbour dues
  - Sugar Rebate of 0.79 (excl GST) for any customer exporting in excess of 575 000 mt in any financial year $/tonne 2.0735
  - Molasses Rebate of 0.79 (excl GST) for any customer exporting in excess of 70 000 mt in any financial year $/tonne 2.0735
  - Live Animals $/tonne 1.2353
  - Timber 2.0394
  - Woodchip 2.0394
  - Goods not otherwise specified – Whichever produced the greater amount of harbour dues $/tonne 1.2573 $/m3 1.2573
### FNQ Marine Industries Capability Profile

#### Port Charges Cont’d

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<thead>
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<th>Description</th>
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<tr>
<td>Wharfage fees whether loading or unloading</td>
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<td>Imported petroleum produces and oils if bulk</td>
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<td>Exported petroleum products and oils</td>
<td>$/kl 0.9167</td>
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<tr>
<td>Cattle, buffalo, horses or camels</td>
<td>$/head 1.71</td>
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<tr>
<td>Sheep or goats</td>
<td>$/head 0.4326</td>
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<tr>
<td>Cement or similar substances or acids or similar liquids by pipeline</td>
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<td>LP gas</td>
<td>$/kl 2.63</td>
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<tr>
<td>Bulk sulphur, clinker or similar bulk products loaded or unloaded other than by pipeline</td>
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<tr>
<td>Or loaded for export</td>
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<tr>
<td>Non empty dry or reefer containers – import</td>
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<tr>
<td>Non empty dry or reefer containers – export</td>
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<td>All full jumbo containers</td>
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<tr>
<td>All empty jumbo containers</td>
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<tr>
<td>Empty containers</td>
<td>$/TEU 17.13</td>
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<tr>
<td>For goods a charge for which is not provided elsewhere, whichever produced the greater charge</td>
<td>$/tonne 4.85</td>
</tr>
<tr>
<td></td>
<td>or $/m3 4.85</td>
</tr>
<tr>
<td><strong>Berthage fees</strong></td>
<td></td>
</tr>
<tr>
<td><strong>BRISBANE</strong></td>
<td></td>
</tr>
<tr>
<td>Wharfage AND harbour dues</td>
<td></td>
</tr>
<tr>
<td>Cement</td>
<td>$/tonne 0.913</td>
</tr>
<tr>
<td></td>
<td>0.913</td>
</tr>
<tr>
<td>Cereal and grains</td>
<td>$/tonne 1.10</td>
</tr>
<tr>
<td></td>
<td>1.10</td>
</tr>
<tr>
<td>Clinker, gypsum and slag</td>
<td>$/tonne 1.265</td>
</tr>
<tr>
<td></td>
<td>0.715</td>
</tr>
<tr>
<td>Coal</td>
<td>$/tonne 0.99</td>
</tr>
<tr>
<td></td>
<td>0.396</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>$/tonne 1.65</td>
</tr>
<tr>
<td>Liquid imports</td>
<td>1.32</td>
</tr>
<tr>
<td>Exports</td>
<td>1.65</td>
</tr>
<tr>
<td></td>
<td>0.33</td>
</tr>
<tr>
<td>Ilmenite, Rutile, Zircon</td>
<td>$/tonne 1.65</td>
</tr>
<tr>
<td></td>
<td>0.33</td>
</tr>
<tr>
<td>Live animals uncrated</td>
<td>$/tonne 2.046</td>
</tr>
<tr>
<td></td>
<td>0.396</td>
</tr>
<tr>
<td>Motor vehicles</td>
<td>$/m3 1.837</td>
</tr>
<tr>
<td></td>
<td>1.683</td>
</tr>
<tr>
<td>Crude oil Import</td>
<td>$/tonne POA</td>
</tr>
<tr>
<td>Export</td>
<td>0.946</td>
</tr>
<tr>
<td></td>
<td>POA 1.32</td>
</tr>
<tr>
<td>Refined oil Import</td>
<td>$/kl POA</td>
</tr>
<tr>
<td>Export</td>
<td>1.925</td>
</tr>
<tr>
<td></td>
<td>POA 1.562</td>
</tr>
<tr>
<td>Sand, Gravel, Coral, Road Metal</td>
<td>$/tonne 1.10</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>$/m3 0.759</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>Silica sand</strong></td>
<td>$/tonne</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tallow</strong></td>
<td>$/tonne</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Woodchips</strong></td>
<td>$/tonne</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yachts</strong></td>
<td>$/m3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Full containers</strong></td>
<td></td>
</tr>
<tr>
<td>20 ft</td>
<td>Each</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>40 ft</td>
<td>Each</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Empty containers</strong></td>
<td></td>
</tr>
<tr>
<td>20 ft</td>
<td>Each</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>40 ft</td>
<td>Each</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reefer containers</strong></td>
<td></td>
</tr>
<tr>
<td>20 ft</td>
<td>Each</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>40 ft</td>
<td>Each</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non containerised general cargo</strong></td>
<td>$/tonne</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$/m3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wet bulk</strong></td>
<td>$/kl</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$/tonne</td>
</tr>
<tr>
<td><strong>Dry Bulk</strong></td>
<td>$/tonne</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heavy lift cargo –any lift over 36 tonne</strong></td>
<td>$/tonne</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$/m3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TOWNSVILLE</td>
<td>PORT CHARGES Cont’d</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Harbour dues - Exports</strong></td>
<td></td>
</tr>
<tr>
<td>Sugar - bulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Fertilizer - bulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Metal concentrates</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Zinc ferrite</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Magnetite</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Molasses</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Zinc ingots - not containerised</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Lead ingots – not containerised</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Refined copper – not containerised</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Refined nickel – not containerised</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Tallow - bulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Cattle</td>
<td>$/head</td>
</tr>
<tr>
<td>Camels</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Sheep and goats</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Oil and petroleum products</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Sand, soil, stone, coke and coal</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Motor vehicles</td>
<td>$/tonne</td>
</tr>
<tr>
<td>General cargo - breakbulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Containerised cargo</td>
<td>$/TEU</td>
</tr>
<tr>
<td>Full container</td>
<td></td>
</tr>
<tr>
<td>Empty container</td>
<td></td>
</tr>
<tr>
<td><strong>Harbour dues - Imports</strong></td>
<td></td>
</tr>
<tr>
<td>Nickel ore</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Oil and petroleum products includes bitumen &amp; palm oil</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Cement - bulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Fertilizer - bulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Sulphur</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Liquid petroleum gas</td>
<td>$/tonne</td>
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<tr>
<td>Sulphuric acid</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Caustic soda</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Metal concentrates</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Motor vehicles</td>
<td>$/tonne</td>
</tr>
<tr>
<td>General cargo - breakbulk</td>
<td>$/tonne</td>
</tr>
<tr>
<td>Containerised cargo</td>
<td>$/TEU</td>
</tr>
<tr>
<td>Full container</td>
<td></td>
</tr>
<tr>
<td>Empty container</td>
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</tr>
</tbody>
</table>