# INTERNATIONAL CONTAINER SHIPPING SERVICE VIABILITY FOR TASMANIA

Gregg Poulter Director GPS Logistics (Tas) Pty Ltd. 15 February, 2013

#### **INTERNATIONAL CONTAINER SHIPPING SERVICE VIABILITY FOR TASMANIA**

#### 1. Executive Summary

To inform further discussion on options that could support the reintroduction of an international shipping service, the Department of Infrastructure Energy and Resources has sought preliminary expert advice on the broad market issues that would influence the viability of attracting a new international container shipping service from the State. In this regard a potential new service could be either through the inclusion of Tasmania on an existing international route or the introduction of a direct new route from Tasmania to a major Asian hub. Additionally, the Department has sought advice on minimum criteria that would support international shipping services from the State.

The scope of this paper is supply side considerations. While it is recognised that demand, including the type of freight and where it is generated is a key driver of service requirements, it is not considered within the scope of this paper.

International container exports from Tasmania represent around 17% proportion of overall container movements from Tasmania and comprise a diversified range of commodities. As described below, the destination market for international exports is largely Asia, but is diverse within the region. Service characteristics and cost affect the attractiveness of a shipping service to a business.

Following the withdrawal of Tasmania's only direct international container shipping service in May 2011, most Tasmanian exporters have really struggled to remain competitive in a global market. Trans-shipment through the Port of Melbourne adds cost and time which can be prohibitive for some commodities. It is estimated that annual export volumes have fallen by more than 10,000 twenty foot equivalent units over the past 2-3 years.

China, has become by far Tasmania's largest market for export containers. Shipments of zinc, aluminium, ferro alloys, tin concentrates, dairy products and meat form the basis of what is quite a diversified export range of commodities. Other major destinations for Tasmanian cargo are Japan, Taiwan, Indonesia, Malaysia and South Korea. Seasonality also plays a big part in exports from Tasmania. Onions in particular, move in considerable volume during the February to May period, when opportunity exists in Europe.

By Australian and worldwide standards, Tasmania's potential international container ports of Hobart, Bell Bay and Burnie all face challenges with regard to access and infrastructure. Bell Bay has potentially the best opportunity to support an international service; however there are many issues such as tidal constraints, suitable cranage and berth length which would impact on an international shipping line or consortium considering a call into Tasmania.

Criteria that would need to be satisfied for the successful reintroduction and ongoing operation of a new international container service are as follows:

**Freight volumes and growth potential:** A concurrent and ongoing commitment by all Tasmanian and national importers and exporters to support whenever possible any new international service. Without significant commitment, Tasmania's volumes would not support an international service.

The service would need to align with the needs of business, including the type of freight, where it is generated and where it is being shipped.

**Supply of empty containers:** With Tasmania's imports providing roughly only one third of the necessary containers required for export, international lines need to be able to supply empty containers from somewhere to support the export requirements.

**Adequate infrastructure:** Adequate infrastructure is dependent on the scale of operation to be carried out. As the current East West service vessels are replaced by larger vessels, the current vessels are cascaded down to the North South services. This inevitably means that ports have to continue upgrading their infrastructure to be able to compete for these vessels.

**Port and landside efficiency:** For container operators, as vessels grow in size and speed, port calls become time critical and must be reliable. Berthing / operational windows must be met on schedule as ports are no longer considered in isolation rather they are an integral part of a much larger market network.

### Estimated Volumes that Might Support a Potential New International Shipping Service From Tasmania

Estimated exchange volumes that might support a potential new international shipping service from Tasmania are included below. Currently the total international export market is estimated to be 45,000 TEU in total (35,000 TEU exports and 10,000 TEU imports).

#### 1,500 – 2,500 TEU Vessel Service

Operating a service to an Asian hub, on the basis of a weekly or fortnightly service frequency would likely require a firm commitment from the market of between 450 and 700 TEU per vessel exchange.

#### 2,500 - 3,500 TEU Vessel Service

This type of service is likely to be provided as part of a consortium service (i.e. similar to the previous AAA consortium). On the basis of operating a weekly sailing, this would likely require a firm commitment from the market for around 700 - 1,000 TEU per exchange.

#### 4,000 - 10,000 TEU Vessel Service

To attract a vessel of this size would require an exchange of in excess of 1000 TEU per sailing. This could be either weekly of fortnightly, however current infrastructure cannot cater for vessels of this size.

Please be aware that these exchange volumes also include a percentage (20 - 30 %) of empty TEU, in order to support the export trade.

# 2. Background: The Tasmanian Freight Environment and the International Shipping Market

This section of the paper provides a brief overview of the Tasmanian international-export freight environment in the context of existing and anticipated market trends in international shipping services; and sets out core service delivery requirements for international carriers when considering the viability of a port or shipping service.

#### 2.1 The Tasmanian international-export freight environment

The Tasmanian export freight market environment is characterised by a need to get limited volumes of a diverse cargo range to multiple destinations globally. This in itself poses many challenges as an international line does not necessarily have access to all these global destinations. Exporters are also generally seeking a service provider that can offer them at least a weekly service, combined with timely transit times to their destinations.

The timely and efficient supply of empty containers is also crucial for Tasmanian exporters. With Tasmania's imports providing roughly only one third of the necessary containers required for export, international lines need to be able to supply empty containers from somewhere to support the export requirements. Generally in the past, these supplies have come from Sydney, where they have the opposite problem to Tasmania where imports far outweigh exports.

#### 2.2 Anticipated Market Trends In International Shipping Services

Globally, international container services are dictated by the large volumes of cargo generated between Asia, Europe and the United States (East West services). Major international lines generally operate in consortiums of 4 to 5 lines, thus maximising their port coverage, transit times and economies of scale. Ports such as Singapore and Hong Kong provide transhipment service options for the feeding of cargo into these massive consortiums. Most services from Australia feed cargo into these transhipment hubs for connection onto larger East West service vessels.

East West service vessels (now up to 18,000 TEU), will continue maximising the benefits of scale, however there are currently limited ports that can physically handle these vessels. In this context, North South services will essentially continue to supply the much larger East West services.

The North South services, including Intra Asia services (of which services to Australia are part), are very much a growing market. As the current East West service vessels are replaced by larger vessels, the current vessels are cascaded down to the North South services. This inevitably means that ports have to continue upgrading their infrastructure to be able to compete for these vessels. Within the North South services there may be opportunities for vessel operators to seek niche markets services and this is where an opportunity may exist for Tasmania. Shipping lines are always evaluating new service options and seeking to find that right mix of cargo to match their vessel capacity.

### **2.3** Core service delivery requirements - what do international carriers look for when considering the viability of a port or shipping service?

This section of the paper considers the core service delivery requirements that international carriers consider when considering the viability of a port or shipping service including terminal and operating facilities, landside connections, customer requirements and support facilities.

Generally, in operating an international service, a commercial operator is seeking to:

- Ensure fast and reliable vessel handling;
- Maintain pressure on cost efficiencies;
- Simplify and maximise the flow of cargo into and out of a port;
- Reduce unnecessary and unproductive handling of cargo; and
- Secure access to adequate container holding areas.

For the broader community and economy, a successful port can:

- Encourage the development of new businesses;
- Attract new and improved services within or adjacent to the port;
- Provide exporters/importers with competitive equality and hopefully a competitive advantage; and
- Develop community pride, interest and support for port related activities.

#### **Container Market:**

Containerization has evolved due to the need for reducing cost and increasing the range and speed of delivery of cargo worldwide. Containers today come in many types and sizes with the major ones being as follows:

- 20 foot dry container (for the carriage of general cargoes);
- 40 foot dry container (for the carriage of general cargoes);
- 20 foot reefer container (requires power to keep cargo at set temperatures);
- 40 foot reefer container (requires power to keep cargo at set temperatures);
- 20 foot and 40 foot flat rack containers (for the carriage of larger and specialised cargo); and
- 20 foot and 40 foot open top containers (carriage of specialised cargo).

A 20 foot container is commonly referred to in the industry as a TEU (20' equivalent unit). A 40 foot container would be referred to as an FEU (40' equivalent unit). Accordingly,  $1 \times 20'$  and  $1 \times 40'$  container would be referred to as 3 TEU.

Containers are loaded or unloaded from vessels generally either by a portainer (gantry crane) or rollon / roll-off method. A portainer crane is a type of large gantry crane found at container terminals and consists of a supporting framework that can traverse the length of the quay or wharf, and a moving platform called a spreader. The spreader can be lowered on top of a container and locks onto the container's four corner locking points using a twistlock mechanism.

Roll-on / roll-off (RORO) ships are vessels designed to carry wheeled cargo such as cars, trucks and trailers. Trailers can be used to carry up to 4 containers (stacked 2 high) and are moved on and off the vessel by prime movers.

For container operators, as vessels grow in size and speed, port calls become time critical and must be reliable. Berthing / operational windows must be met on schedule as ports are no longer considered in isolation rather they are an integral part of a much larger market network. Terminal operators are now encouraged by shipping operators to provide National port contracts within defined parameters. Terminal operators are encouraged to assemble exports and clear imports in a fast and highly disciplined manner. Failure to perform can result in financial penalties.

If vessels fail to meet their agreed berthing window at the terminal then they face the risk of not getting a berth and would have to potentially wait at the end of the queue for a berth to become available. In turn, once berthing windows are missed this flows on to the next port and consequently the vessel can get well behind their advertised sailing schedule. In order to get vessels back onto schedule, the main option is to omit a port on the next voyage and this is an option that can have severe repercussions for that port's customers. Alternatively, shipping lines may choose to limit the TEU exchange in ports, which again can cause problems for customers.

In this context, key operational considerations are:

#### Container Vessels Need:

- Guaranteed Berthing;
- Adequate cranage;
- Adequate park space and layout;
- Adequate handling equipment;
- Reliable support services; and
- Reliable and motivated work force.

#### Container Terminals Need:

- Sufficient throughput to remain viable;
- Efficient receival and delivery interface;
- Well managed park operations;
- Adequately maintained handling equipment;
- Specialised cargo care facilities;
- Continuous operation if required; and
- A reliable and motivated workforce.

#### Rail and Road Need:

- Efficient access to terminals to achieve a quick turnaround;
- Well planned operations co-operatively integrating with the terminal; and
- Enough labour at the terminal to ensure a timely turnaround.

#### > Cargo Interests (importers/exporters) Need:

- Seamless container handling;
- Acceptable cost levels;
- Convenient access to regulatory facilities; i.e. customs and quarantine; and
- Motivated and reliable staff who can extract efficiencies from well integrated port facilities.

#### Customs/Quarantine/Security Need:

• To undertake their responsibilities as part of an efficient port function; and

• To pursue their objectives selectively with minimal disruption to the overall function.

#### Support Facilities Needed:

- Container depots;
- Warehousing;
- Repair and maintenance services;
- Communications;
- Land for expansion; and
- Human support facilities (i.e. access to food outlets).
- > Scale:
  - The larger the throughput, the greater the opportunity to develop efficiencies; and
  - Small operations present much greater challenges with respect to providing reliable and viable services.

## **3.** Broader market issues: what are the key external factors influencing international carriers calling to Tasmania?

This section of the paper considers the broader market issues influencing international carriers calling to Tasmania. These include key factors such availability of container volumes, adequate port and landside infrastructure, the need to reposition and/or relocate empty containers to meet export volumes, market freight rates and diversion time and steaming costs from existing schedules.

### **3.1** The availability of containerised cargo volumes both northbound and southbound to/from destinations serviced by the carrier:

Most international shipping lines today operate in consortium style services. This enables them to achieve cost efficiencies through their size and also maximise their port and service coverage. Shipping lines will each put vessels into the service and then share slot allocations on each vessel and also share the costing's associated with their percentage share of the service. By doing this, consortiums are able to continue to seek cost efficiencies by increasing the size and capacity of their vessels. A single shipping line operating on their own will struggle to have the cargo volumes required to match the efficiencies achieved by consortiums.

From a Tasmanian perspective, a consortium service would most likely offer Tasmanian shippers the best alternatives to enable them to get their cargo to the many different global markets. No individual shipping lines offer all global destinations. With this in mind, a look at the estimated current Tasmanian annual total market size for international export containers (35,000 TEU) and import containers (10,000 TEU), total (45,000 TEU) would mean that any new service would have to have the full commitment from all Tasmanian importers and exporters to ensure the volume requirements were met.

It is estimated that for a consortium service (similar to the previous AAA service) to be viable on a weekly basis, an exchange of 700-1,000 TEU (approximately 35,000 – 50,000 TEU per year) would be required. Any smaller service, especially an individual shipping line would not offer the frequency, transit times or choice that would be available with a larger consortium and consequently shippers would be forced to seek alternatives via a mainland port to meet their customer's requirements.

#### 3.2 Adequate infrastructure with plans for growth and development

Necessary infrastructure is obviously dependent upon the scale of operation to be carried out. It is understood that the previous AAA service vessels out grew the available infrastructure at Bell Bay. Depending upon port rotations in Australia, vessels draft can vary considerably. This is due to the volume and weight of the cargo to be loaded and discharged in each individual port.

Navigation channels now need to cater for vessels with a draft of between 12 and 13 meters (minimum). This would potentially allow vessels up to around 4500 TEU to be serviced. Tidal constraints pose an additional scheduling constraint for the arrival and departure of vessels. Similarly, for larger vessels operating in a consortium in order to meet port schedules elsewhere, cranage would need to provide an efficient port exchange.

#### **3.3** The supply of empty equipment to meet laden Northbound bookings.

Tasmania as a whole has a big imbalance of International cargo. Our volume of exports far outweighs our imports and consequently empty containers need to be repositioned into the State. The greater share of Tasmania's imports is now in 40' Dry containers (general purpose containers) whereas the great majority of our exports require 20' Dry containers (general purpose containers), due to maximum gross weight constraints. A great majority of Tasmania's exports such as minerals and metals are high density, heavy weight commodities. 20' Dry containers generally have a maximum gross weight of just over 30 tonnes, and when they are loaded with these heavy commodities, they may only be 20-30% full from a volume perspective. Exporters will not want to load a 40' Dry container as the transport and shipping costs will be higher. This again causes further container imbalance.

Most specialised equipment (i.e. refrigerated containers) all need to be repositioned empty into the State.

International lines would need to be in a position to supply empty containers to Tasmania from potential surplus stocks in mainland ports. Attached to this repositioning of empty equipment comes a considerable cost (\$600-\$700), which International Lines would be seeking to retrieve from the market.

#### Market freight rate levels.

International Lines would need to analyse the current Tasmanian market freight rates to the international destinations they offer and ascertain if Tasmanian shippers would support them at the price levels they need for a commercially viable operation.

Apart from needing to factor in some cost recovery for the supply of empty containers, there are many destinations globally that shipping lines may want to recover costs at the port of discharge in order to facilitate the empty move of that container back out of the port. In a perfect world, shipping lines are seeking full paying movements in both directions and are seeking to avoid the relocation of empty containers as this comes with a considerable cost attached.

#### 3.4 Diversion time and steaming cost from current schedule.

Any direct call to a Tasmanian port is going to add time and cost to an existing service schedule. As an example, if a 4,000 TEU vessel sailing from Sydney to Melbourne was to be diverted to Bell Bay, then at economical steaming of say 20 knots an additional 9.6 hours steaming would be required and the estimated cost of the additional fuel consumed would be around \$36,500. International lines/consortiums would need to access the viability of this diversion and how they can manage it without affecting the schedule integrity of their service. Another major cost to be considered is local port costs. There are obviously many variables with port costs, however estimated costing's to get a 3,500-4,000 TEU vessel in and out of a Tasmanian port would be between \$60,000 and \$70,000 per voyage. It is likely that a direct Tasmanian call would only be introduced off the back of a schedule revamp combined with new vessel tonnage.

#### 3.5 A growing business economy.

International lines will want to see that their commitment to providing a service will be rewarded by having strong annual growth in import / export volumes. Under the current global conditions, it is likely to be very difficult to entice a direct International regular service into Tasmania without having an economy that is showing signs of potentially strong growth and a commitment to provide a platform that will provide businesses with the incentive to invest and grow in Tasmania.

#### 3.6 The capacity and marketing strength of the Domestic Feeder Operators.

Any proposed new International Shipping service would face strong competition from the current domestic operators who would be seeking to maintain their current share of the trade (particularly Northbound). Currently there are periods of the year when getting space on board the domestic feeders is very tough, as they are operating to near maximum capacity.

The domestic operator's ability to compete for International cargo would be largely driven by which port any International operator chose to operate from. If say Bell Bay was chosen, then it would be very difficult for the domestic operators to compete for cargo within the Bell Bay industrial precinct as an example. The road transport costs to and from Burnie and Devonport would make the domestic carriers uncompetitive to most International destinations. Similarly, if an International service was to call into Hobart, it is likely that any International cargo from the Southern region would move on this service as the North West based domestic carriers would be uncompetitive.

#### 3.7 The abolition of Cabotage for Tasmanian cargo.

Cabotage is the transport of goods or passengers between two points in the same country by a vessel or aircraft registered in another country. Australian shipping operates under a system of registration, licences and permits along its coast. In order for internationally registered vessels to carry domestic Australian cargo, they must also comply with the regulations of the Fair Work Act 2009. This essentially means that internationally registered vessels operating on the Australian coast continuously or on frequent occasions in a relatively short period of time will be covered by Australian industrial law and accordingly be obliged to provide Australian minimum wages and conditions for the duration of that vessel's Australian voyage.

The ability for International lines to uplift domestic cargo both to and from Tasmania without the cost and protocol associated with complying with the Fair Work Act 2009 would create significant competition and potentially significant freight reductions for domestic shippers.

The abolition of cabotage would also provide an International carrier with the opportunity to significantly increase their uplift of cargo both too and from Tasmania. This would allow for much better economies of scale for all aspects of an International service.

#### 4. Key drivers of International and domestic shipping costs

This section of the paper discusses the key drivers of international and domestic shipping costs. All shipping lines, no matter whether they are international or domestic face immense pressures from the continually escalating costs associated with operating vessels. All service providers to shipping lines are continually seeking to gain increases to their charges and on occasions shipping lines have no choice but to accept these charges as there may be limited competition.

Internationally, there are currently hundreds of vessels, representing hundreds of thousands of TEU, sitting idle owing to what could be called the great shipping recession. The majority of these vessels will probably end up as scrap as shipping lines continue to build bigger more operationally efficient vessels. As these vessels come into service, other smaller vessels are being pushed onto smaller services or simply laid up for scrap.

#### Charter rates.

The container ship charter market, struggling to recover from record lows, is set to weaken further in 2013 with an overhang of excess capacity. Average charter rates in 2012 rose 20% from their all-time low in 2009, but remain 55% below their long term 20-year average (adjusted for inflation), making 2012 the second worst year for shipowners in the past two decades. The rising volume of unemployed and laid up vessels is stifling efforts to raise charter rates. Daily charter rates are between \$5,000 and \$9,000 for all ship sizes below 5,000 TEUs, with vessels of 1,000 – 2,000 TEUs faring comparatively better than 2,000 – 5,000 TEU vessels for which rates barely cover operating costs.

#### Fuel oil costs.

Marine Bunker Fuel Oil currently costs between \$640 and \$720 per tonne. Daily consumption varies greatly depending upon many variables. Increased speed is the major user of fuel. As an example, daily fuel consumption for a 4,000 TEU vessel sailing at an economical speed of 20 knots would use about 130 tonnes of fuel oil per day. Cost \$83,000 to \$93,000 per day. If the vessel increased its speed to 22 knots, then fuel consumption would increase by a further 30 tonnes per day or \$20,400. At full speed (23-24 knots), fuel consumption would increase by a further 40 tonnes per day or \$27,200. Clearly, vessels will endeavour to steam as slow as possible within the confines of maintaining their schedule.

Most shipping lines now implement a surcharge called BAF (Bunker Adjustment Factor) to cover the volatility of fuel price increases and decreases. This percentage figure of freight is usually based on a formula and is reviewed on a monthly basis and broadcast to customers.

#### Shipping labour rates.

Internationally, labour rates for crew continue to rise as with all positions. Pressure from labour organisations worldwide means that shipping lines will constantly be on the lookout to source labour from countries that have qualified yet more cost effective crew.

Obviously for domestic shipping within Australia, wage rates are as per National awards, which are much more lucrative than most international rates and awards.

#### Port Costs.

These costs are levied by the local port authorities for getting vessels in and out of ports. They are also designed to assist with the provision of infrastructure and port associated services. Port costs are largely based upon the size (gross tonnage) of the vessel. Major factors that also influence this costing are time taken for berthing and unberthing the vessel. Weather conditions and tug requirements also can impact heavily on the overall cost.

Effective from 1<sup>st</sup> July 2012, the Melbourne port corporation imposed a fee of around \$25 per TEU on all laden containers moving through the port of Melbourne. This fee was initiated to cover an annual license fee of \$75 million being levied on the port authority by the Victorian Government. Shipping lines in turn are passing this cost on to their customers. This fee will continue to rise in line with CPI, and may also be increased to cover any shortfall due to reduced volumes.

#### Stevedoring container rates.

Most international container services have a National Stevedoring contract with a particular company that applies to stevedoring arrangements in all container terminals in Australia. Tasmania is slightly different in that it is not regarded as having a Terminal operation such as the other major Australian ports do. Consequently, a separate contract would generally be struck with the Stevedoring Company that services the lines vessels in other Australian ports.

Stevedoring rates generally cover the receival, storage, loading or unloading of containers from road or rail to the vessel. These rates, depending upon stevedores and operational facilities, would be in

the range of \$200 to \$260 per container lift, on or off the vessel. Additional charges generally apply for any extra services (e.g. power, monitoring).

#### Empty/laden container transport, storage, maintenance and repairs.

This is an area that is drawing a lot of attention from International container lines. The supply and movement of empty containers to meet the demands of customers is an extremely costly exercise. To move an empty 20' Dry container from say Sydney to Bell Bay on a direct service could cost a shipping line between \$600 and \$700 in cash costs. Once the container arrives in say Bell Bay, there are further charges associated with transport, lifting, inspection, cleaning, storage, maintenance and repairs.

#### Terminal Costs – Labour and Machinery.

Domestically waterfront wages are relatively high when compared to other developed nations. High Australian salaries would not necessarily be a problem if they were accompanied by proportionally high productivity; however this is generally not the case.

Domestic terminal operations are relatively labour intensive, so accordingly domestic freight rates are relatively high. Machinery cost and maintenance also have a major impact on domestic freight rates.

# 5. Direct International Shipping versus Transhipment Via Melbourne, from a Freight Customer Perspective

Following the cessation of AAA's international shipping service from Bell Bay, containerised international exports are now required to be transhipped from domestic to international shipping lines, primarily through the Port of Melbourne. This section of the paper discusses some of the comparative advantages and disadvantages to freight customers from a direct shipping service versus transhipment through a major Australian international container port.

#### 5.1 Direct International Shipment

The key advantages of direct international shipment are the potential savings in freight charges and improved transit times to market.

Shippers/Consignees could save potentially \$800-\$1,500 per container in transport costs depending upon where they are located, and the weight of their cargo in relation to the International services port of call. As an example to try and highlight these potential savings, the estimated costs to move an empty container from a container yard in Melbourne, through Burnie to Bell Bay and then return to the overseas berth in Melbourne via Burnie with laden heavyweight cargo would be as follows:

Empty transfer of 20'dry container from a container yard to Webb Dock:	\$90
Empty transfer Webb Dock to Burnie:	\$450
Empty / Full – Burnie / Bell Bay (Industrial precinct) / Burnie:	\$1,000
Full transfer Burnie to Webb Dock:	\$800
Full transfer Webb Dock to overseas berth:	<u>\$120</u>
Total:	\$2,460

If a direct international service was available from Bell Bay, then estimated costs for the same shipment would be as follows:

Empty transfer of 20'dry container from a container yard to shippers premise:	\$50
Full transfer from shippers premise to overseas berth Bell Bay	<u>\$100</u>
Total:	\$150

This represents a difference of \$2310, however direct international shipment from Bell Bay would come with a higher international freight rate than shipments from Melbourne. This figure could be between \$300 and \$1000 higher depending upon the shipping line and how they wish to recover empty relocation costs and other commercial considerations.

Transit times to any markets serviced by the direct calling International service should save customers at least 3 to 5 days on Northbound shipments and 7-10 days on Southbound shipments. Reduced transit times can result in considerable savings for importers as their need for warehousing stock is reduced.

Other potential advantages of a direct international shipment include:

- Minimising transhipment movements is a much better marketing tool for customers;
- Supplies of empty containers would generally be more readily available from a Tasmanian depot;
- Consignee's unpacked containers can be returned to a container yard in Tasmania, rather than in some cases having to return them to Melbourne at a cost;
- A knowledgeable, respected local shipping agency has many benefits for all customers;
- Potentially fast transit time to an International transhipment hub. I.e. Singapore, Hong Kong; and
- Laden imports are crucial to help alleviate some of the need to empty reposition containers into Tasmania.

Key disadvantages include limited services to some international markets and potentially limited capacity. The potential for capacity limitations is based on the size of the vessels in service and their ability to uplift all cargo on each voyage. Loading at ports prior to a Tasmanian port may result in load restrictions when the vessel gets to a Tasmanian port. If cargo was to be short shipped i.e. held-over, then there may be a wait of 7-14 days before the next vessel arrives.

Without a weekly service, it would be extremely difficult to gain the customer support required.

#### 5.2 Transhipment via Mainland Port

The key advantage of transhipment through a major mainland international container hub (such as the Port of Melbourne) is access to multiple shipping lines and their associated routes in addition to service frequency. Access becomes available to 35-45 different shipping lines, with services to just about any port worldwide. Direct shipments from Melbourne are available to many more International ports than would be available from a single service calling Tasmania. Choices (Freight

rates / Transit times) are available due to competition between shipping lines. Service frequency in some cases can be much better.

The key disadvantage is the high cost associated with the movement of laden and empty containers across Bass Strait and transfer to/from the overseas shipping terminals. For importers, getting empty equipment back to container depots in Melbourne and for exporters getting empty equipment from Melbourne depots into Tasmania is also a key issue. The current Bass Strait operators give low priority to the movement of empty containers, especially when vessels are full. Similarly, there is limited capacity at different times of the year (i.e. seasonal cargo, holidays, vessel dry docking) to move containers.