

Compulsory Pilotage in the Torres Strait: Overcoming Unacceptable Risks to a Sensitive Marine Environment

SAM BATEMAN

Australian National Centre for Ocean Resources and Security
University of Wollongong
Wollongong, New South Wales, Australia

MICHAEL WHITE

Centre for Marine Studies; Marine & Shipping Law Unit
University of Queensland
Brisbane, Queensland, Australia

This article explores arguments about the international legality of compulsory pilotage in the Torres Strait. Although the measure has been opposed by some user states because the Torres Strait is a strait used for international navigation, Australia and Papua New Guinea believe compulsory pilotage is necessary to overcome the risks posed by unpiloted shipping passing through the hazardous waters. The good health of the marine environment in the Torres Strait is essential, particularly for the well-being of indigenous peoples of the area. The article concludes that compulsory pilotage in Torres Strait reflects the obligations of both the user and border states to preserve and protect the marine environment and has support in international law.

Keywords compulsory pilotage, international straits, marine environmental protection, Particularly Sensitive Sea Area (PSSA), Torres Strait

Introduction

The introduction of compulsory pilotage by Australia for certain vessels in the Torres Strait and Great North East Channel has proven to be controversial.¹ The issue was hotly debated within the International Maritime Organization (IMO) and the compulsory pilotage regime has been formally protested by the United States and Singapore.² It is possible that

Received 25 June 2008; accepted 30 September 2008.

The authors thank Paul Nelson, Manager–Environment Protection, Australian Maritime Safety Authority, for the provision of the map in Figure 1 and the data in Table 1.

Sam Bateman is also Senior Fellow, Maritime Security Programme, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore.

Address correspondence to Dr. Sam Bateman, Professorial Research Fellow, Australian National Centre for Ocean Resources and Security, University of Wollongong, Wollongong, New South Wales 2522, Australia. E-mail: sbateman@uow.edu.au; or to Dr. Michael White, Centre for Marine Studies, University of Queensland, Queensland 4072, Australia. E-mail: m.white@ug.edu.au

Singapore might take the issue to international dispute resolution. The United States could also do this if it became a party to the 1982 United Nations Convention on the Law of the Sea (UNCLOS).³

The shipping route through the Torres Strait and the Great North East Channel (see Figure 1) constitutes a strait used for international navigation to which the transit passage regime in Part III of UNCLOS applies. The Torres Strait became a Particularly Sensitive Sea Area (PSSA) approved by the IMO in 2005⁴ on a motion brought by both border states, Australia and Papua New Guinea. Thus, the IMO has acknowledged the area as one needing special protection because of its significance for recognized ecological, socioeconomic, and scientific reasons as well as vulnerability to damage from international maritime activities.⁵ Australia asserts that compulsory pilotage is necessary to protect sensitive marine habitats in the Torres Strait. It considers compulsory pilotage an appropriate and necessary associated protective measure (APM) for the PSSA in order to enhance safe navigation through the area in order to reduce the risks of marine casualties and of resulting accidental pollution by ships.

This article explores the international arguments for and against the legality of the Australian compulsory pilotage regime in the Torres Strait. Doubts have been raised about whether the regime in this international strait accords with international law.⁶ For example, Ambassador Tommy Koh of Singapore, who was deeply involved in negotiating UNCLOS, considers that Australia's case is "weak," and sets "an unfortunate precedent" for other straits used for international navigation.⁷ On the other hand, there are many factors that suggest that the Australian government was faced with unacceptable risks to a sensitive marine environment and had to take action to meet them.

Practical Considerations⁸

Navigational Issues

The Torres Strait is comprised of the waters between Cape York Peninsula, in the extreme north of Australia, and Papua New Guinea. These waters are shallow. Depths in the Torres Strait are 10.5 meters in the Varzin Passage and 11.5 meters in the Prince of Wales Channel. They are strewn with numerous islands, islets, reefs, and shoals. The northern part of the strait is navigable only by vessels with a very shallow draught such that the deep draught vessels are restricted to using narrow channels in the south between the islands off Cape York. The Torres Strait also extends to the Great North East Channel, which is the channel running northeast and southwest in the eastern part of the strait, and is described further below.

Navigation in the Torres Strait is extremely hazardous and difficult. Apart from shallow waters and many navigational dangers, the tidal regime in the strait is highly complex and variable.⁹ Tidal streams can exceed 7 knots. This is an area of confluence between two major ocean systems. Tides in the Coral Sea and Pacific Ocean are semidiurnal while tides in the Indian Ocean are diurnal, causing tides in the strait to have no coherent pattern.¹⁰ The *Australian Seafarers Handbook* warns vessels planning a passage through the Torres Strait that "accurate calculations and local knowledge are necessary to establish a tidal window for any particular day and draught."¹¹ Visibility can be impaired by sudden squalls and storms. Radar propagation is degraded frequently due to heavy precipitation during the "wet" season and strong southeast trade winds that cause sea mist during the "dry" season.¹² It is considered to be one of the more dangerous stretches of water in the world routinely

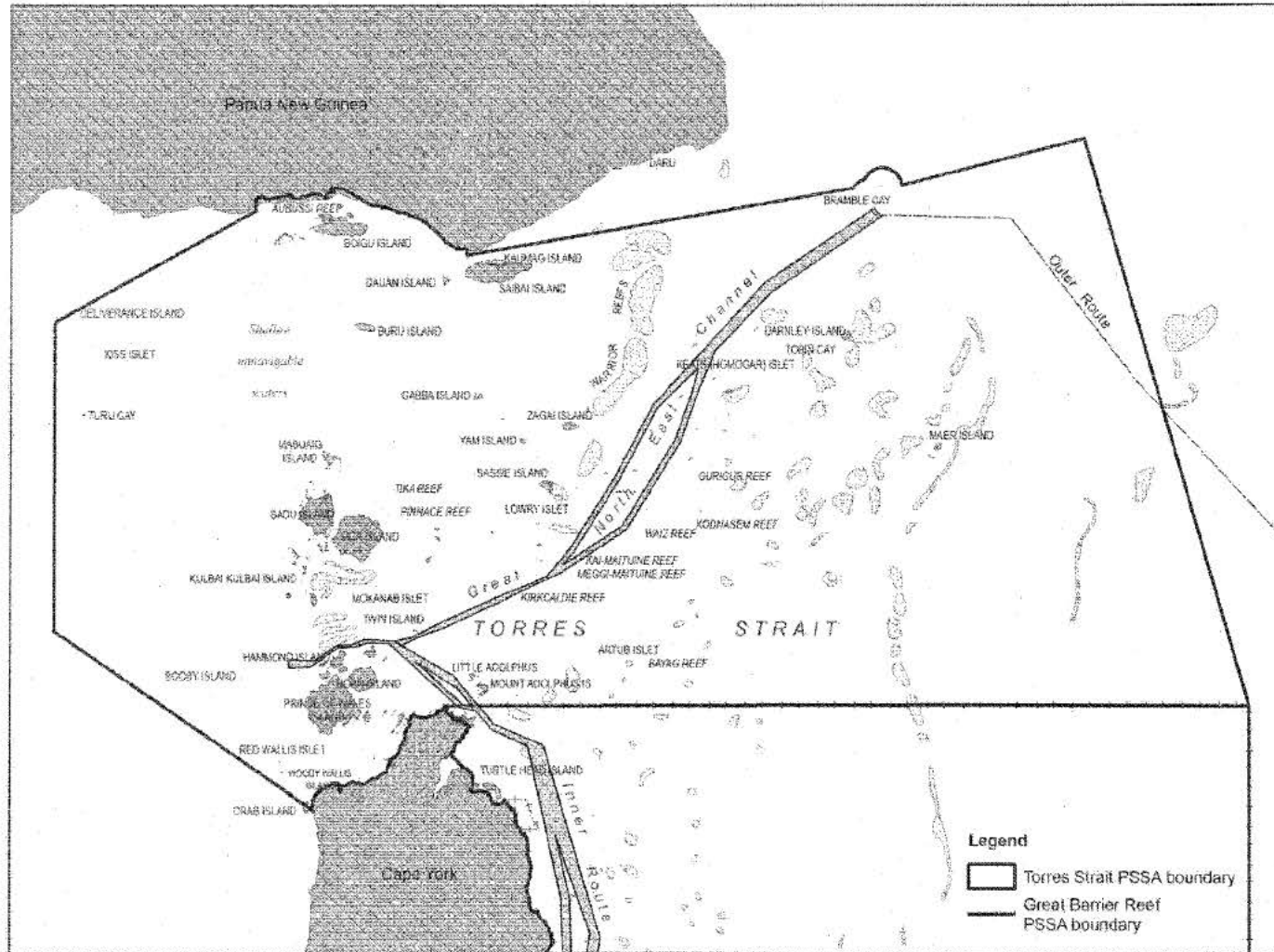


Figure 1. Torres Strait shipping routes and Particulary Sensitive Sea Area (PSSA). (Source: Australian Maritime Safety Authority.)

navigated by large vessels, which is reflected by the fact that the voluntary pilot service has been available for the Torres Strait for well over 100 years and has been widely used.¹³

International commercial ships use the Prince of Wales Channel to pass through the Torres Strait. This waterway is narrow, being only 800 meters wide at its narrowest point,¹⁴ and subject to strong tidal streams. Of these ships, most are bound to or from Australian ports and their passage also includes the Inner Route of the Great Barrier Reef. However, the tanker traffic for Australian ports uses the Great North East Channel (and then the Great Barrier Reef Outer Route) as do ships bound to and from South Pacific ports. It is only these latter vessels to which the strait's transit passage regime in UNCLOS applies. Ships using the Great Barrier Reef Inner Route pass through Australia's internal waters, so their passage does not constitute transit passage within the meaning of UNCLOS Article 38(2).¹⁵

Although the Prince of Wales Channel is the most dangerous part of the Torres Strait used for international navigation, navigating through the Great North East Channel is also hazardous. The channel is bounded on the western side by the Dungeness and Warrior Reefs and on the eastern and southeastern side by numerous coral reefs and islands. In several parts of this channel, ships must navigate close to reefs and other dangers. It is subject to strong tidal flows that are mainly across the channel and can easily sweep a ship off course.¹⁶ The tidal streams are mostly across the main channel and ships passing along the channel must navigate with great caution. Tidal streams and currents in the area are also affected by the outflow from Papua New Guinea rivers into the Gulf of Papua, which at some times of the year can be extremely strong. This channel becomes even more dangerous at night or in poor daytime visibility when many of the reefs and other dangers are not perceptible.

The waters of the Torres Strait are also used extensively by fishing and recreational vessels and their movements are often unpredictable. Between 1985 and 2003, there were 12 collisions between unpiloted trading vessels and fishing vessels caused, in most instances, by a failure to keep a proper lookout on both vessels.¹⁷

When it comes to pilotage, there can be no doubt that the use of a pilot reduces the risks of a marine accident. Merchant ships operate with small crews and their safe navigation through the Torres Strait via the Prince of Wales and Great North East Channels is a demanding task for the small team on the bridge of a large vessel. Research undertaken on behalf of Australia by representatives of the U.S. and Canadian coast guards found that compulsory pilotage in the Torres Strait could reduce the risk of groundings by between 45% and 57% and of collisions by between 57% and 67%, depending on the specific location within the strait.¹⁸ Another analysis by Det Norske Veritas in 2001 indicated that compulsory pilotage could reduce these risks by 35%.¹⁹ These are significant reductions in risk that cannot be ignored. Human error is a major cause of marine accidents,²⁰ and the skill level of some international seafarers leaves much to be desired.²¹ These factors justify concern about the safety of navigation in the Torres Strait and the threat to the marine environment from a shipping accident.

The Pilotage System

Australian regulations established the compulsory pilotage regime for the Torres Strait and Great North East Channel in 2006.²² Pilotage is compulsory only for vessels over 70 meters and all oil, chemical, and liquefied gas carriers. The regime recognizes the principle of sovereign immunity by exempting warships and government vessels not employed on commercial service and provides a pilotage exemption for commercial vessels with bridge teams that meet the necessary requirements of skill and experience. The Marine Notices

issued by Australia expressly advise that it is a legal defense if a pilot cannot be carried because of stress or weather, saving life at sea, or other unavoidable cause.²³

A breach of the Australian Navigation Act or regulations with respect to compulsory pilotage gives rise to liability on the part of the master and the owner of the offending vessel. Apart from the defenses mentioned above, which are available to both the master and owner, the owner also has a defense if he or she took all reasonable precautions and exercised due diligence to ensure the ship did not navigate in contravention of the relevant provisions.²⁴ In short, the only ships that are required by the legislation to have pilots are those that pose the greatest risk to safe shipping and the marine environment. And, even those ships will not be prosecuted if they have a reasonable cause not to take a pilot.

Measures are in place to ensure that ships approaching the Torres Strait are notified well in advance of the requirement to take a pilot. Ships planning to enter Australia's 200-nautical-mile exclusive economic zone (EEZ) are required to report their intentions and are tracked using the Australian Maritime Information System (AMIS) managed by the Border Protection Command. Their movements are then monitored within the Torres Strait and the Great Barrier Reef area by REEFCENTRE, which operates REEFVTS, the vessel traffic and information system for these shipping routes.²⁵ The REEFVTS supports safer shipping in the Torres Strait and Great Barrier Reef area by providing advice over the ship's radio as to hazards that a ship may encounter, including approaching commercial vessels, concentrations of fishing vessels, and, if the ship appears to be leaving, the recommended track.

As a vessel approaches the Torres Strait, it is interrogated by automatic identification system (AIS) shore stations and tracked by shore-based radar. Should a vessel not take a pilot and fail to identify itself, it will be identified by surveillance aircraft and subject to legal proceedings when it next enters an Australian port. An important aspect of the pilotage scheme is that no attempt will be made to physically enforce the compulsory pilotage regime by denying passage.

The Australian Maritime Safety Authority (AMSA) has reported that, since the introduction of compulsory pilotage in the Torres Strait, there has been 100% compliance.²⁶ Compulsory pilotage is therefore achieving its objective of improved protection for the sensitive and pristine marine habitats of the Torres Strait and adjacent areas by reducing the risk of shipping accidents.

Table 1 shows the number of piloted transits through the Prince of Wales Channel and the Great Barrier Reef Inner Route and Great North East Channel by flag from the start of compulsory pilotage on October 6, 2006, through September 30, 2007. As mentioned above, the transit passage regime in UNCLOS relates only to ships that pass through the Torres Strait using the Prince of Wales and Great North East Channels. There were roughly three piloted transits per day of this route while about six piloted ships per day used the Great Barrier Reef Inner Route. The main flag states that used the Prince of Wales and Great North East Channels, and thus exercised the freedom of transit passage, were Panama (297 transits), Hong Kong (107 transits), and Singapore (94 transits).

Jurisdiction in the Strait

The Torres Strait Treaty

The Torres Strait Treaty was agreed between Australia and Papua New Guinea in 1978.²⁷ This treaty established sovereignty over islands in the strait and a system of agreed maritime boundaries. It is a complicated treaty creating territorial sea enclaves, noncoincident seabed

Table 1
Piloted Transits of Great Barrier Reef (GBR) Inner Route and Great North East Channel (GNEC) from October 6, 2006, to September 30, 2007

Flag	GBR Inner Route	GNEC	Total
Antigua & Barbuda	43	22	65
Australia	235	12	247
Bahamas	68	71	139
China	22	13	35
Cyprus	52	24	76
Denmark	89	22	111
France	4	45	49
Germany	51	9	60
Greece	56	16	72
Hong Kong, China	186	107	293
India	53	14	67
Isle of Man, UK	9	47	56
Liberia	142	43	185
Malaysia	61	19	80
Marshall Islands	87	41	128
Netherlands	50	11	61
Panama	535	297	832
Singapore	190	94	284
United Kingdom	74	6	80
Vietnam	1	16	17
Other	175	75	250
Total	2,183	1,004	3,187

Source: Australian Maritime Safety Authority.

Note: All the ships shown in this table would also have used the Prince of Wales Channel. Transit passage applies only to those ships that used the GNEC (i.e., as shown in the third column).

and water column boundaries, and a large protected zone with extensive management arrangements. The principal purpose of the protected zone is to acknowledge and protect the traditional way of life and livelihood of the indigenous peoples, including fishing and free movement. Generally, it is an area of high marine biodiversity with sensitive marine habitats and extensive fishing activity, both commercial and subsistence. Subsistence fishing is still an important source of food for the peoples in the Torres Strait area.

The treaty also protects the interests of the Torres Strait islanders with their close and strong cultural affiliation with the sea and their islands. They inhabit many of the islands and are a distinct people from the Aborigines who inhabit the Australian mainland. The islanders sought special protection of their area and the treaty attempted to address this. As a result, there is a heavy burden on the governments of Australia and the Papua New Guinea to ensure this protection, which includes protecting the area from shipping accidents that could occur in the pristine waters and on their island shores.²⁸ A major spill of oil or other hazardous pollutant could have a disastrous impact on the marine environment, seashores, fisheries, and generally on the lives of the islanders.

Jurisdiction

Jurisdiction in the Torres Strait is extremely complex. The 1978 Torres Strait Treaty established a seabed boundary between Australia and Papua New Guinea, but there is also a noncoincident fisheries jurisdiction line. The territorial seas around islands in the strait have varying widths depending on their location in the strait. The treaty provides that the territorial sea of the Australian islands north of the seabed boundary is restricted to 3 nautical miles,²⁹ and both Australia and Papua New Guinea are restricted from extending their territorial sea beyond 3 nautical miles in certain other parts.³⁰

Australian jurisdiction is complicated by the fact that Australia has a federal system of government and a large part of Australia's maritime area of jurisdiction in the strait is comprised of coastal waters of the state of Queensland. "Coastal waters" of Queensland and other states (and the Northern Territory) are defined as a belt of water between the limits of the state and a line 3 nautical miles seaward of the territorial sea baseline.³¹ State jurisdiction over this part of the territorial sea was established under the Offshore Constitutional Settlement that was negotiated after a sea jurisdictional dispute between the Commonwealth of Australia, the six Australian states, and the Northern Territory in 1979.³² It was agreed that the states and the Northern Territory would have jurisdiction over the state coastal waters for most purposes, with the Commonwealth having jurisdiction beyond that.³³

Territorial Sea Baselines

Australia proclaimed territorial sea baselines in 1983³⁴ and these were amended slightly in 1987 to take account of certain historic bays in South Australia.³⁵ This proclamation was revoked in 2006 when a revised set of baselines was put in place.³⁶ Most of these baselines are normal baselines drawn in accordance with Article 5 of UNCLOS, with the remainder comprised of straight baselines drawn across bays and river mouths, and around fringing islands, in accordance with UNCLOS Articles 7, 9, 10, and 14.

Australia's straight baselines in the Torres Strait were part of the 1983 proclamation and were unchanged in the 2006 proclamation.³⁷ The baselines enclose, as fringing islands, the main islands lying to the north and northeast of Cape York as well as the fringing islands down the east coast of Cape York. After the declaration of the 12-nautical-mile territorial sea in 1990,³⁸ Australia might have been able to extend its system of straight baselines in the Torres Strait to include islands such as Murray, Darnley, and Stephens lying in the eastern approaches to the strait. However, it has chosen not to do so, presumably because much of the area would then have become coastal waters under Queensland instead of Commonwealth jurisdiction.

Environmental Considerations

Pollution Concerns

As already mentioned, the Torres Strait represents an extremely sensitive marine habitat that easily could be significantly damaged as a result of a marine accident, and this was recognized by the IMO when the area was declared a PSSA. The impact of crude oil on mangroves in the strait was still evident some 27 years after a major spill as a result of the grounding of the tanker *Oceanic Grandeur*.³⁹ Cargoes carried through the Torres Strait, either in containers or as bulk cargoes, include crude oil, petroleum products, bulk fertilizer,

and mineral concentrates. Tankers carry large quantities of crude oil and petroleum products around the Australian coast and ship crude oil from the Kumul Terminal, the oil export platform located 40 kilometers offshore in the Gulf of Papua. An oil spill, including of bunker fuel oil, could have a great impact on the marine environment. Due to the strength of the tidal streams and currents in the area, containment and cleanup arrangements would be difficult and the oil could quickly spread across numerous islands and reefs in the strait. Possible pollution of the marine environment has long been a major concern of the indigenous peoples living in and around the Torres Strait.⁴⁰ Further, a maritime accident could even block off the strait by the presence of the damaged ship or ships, combined with the vessels involved in the cleanup and salvage operations.

The background of how the Torres Strait became a PSSA began when, as a result of concerns over the risks of pollution damage to the environmentally sensitive Great Barrier Reef, Australia applied to the IMO to have the Great Barrier Reef identified as a PSSA. This was approved in 1990, together with a recommendation that IMO member states should inform ships flying their flags to comply with the system of pilotage introduced by Australia.⁴¹ That system has become one of compulsory pilotage and it has been accepted without challenge by other countries.

With regard to the Torres Strait itself, in 1987 the IMO adopted a resolution promoting voluntary pilotage in the strait.⁴² This was extended by a 1991 resolution, superseding the earlier one, which recommended that certain classes of vessel use a pilot when passing through the Torres Strait and Great North East Channel.⁴³ Although initially these recommendations were reasonably successful in making ships use a pilot, noncompliance increased over time. Data from 1995 and 2001 show that, while 70% of vessels on east-bound voyages were taking a pilot in 1995, the percentage had fallen to 32% by 2001.⁴⁴ The percentages for westbound voyages were 55% and 38.5%. These percentages equate to about 500 unpiloted transits each year.⁴⁵ As a consequence, the risks that a major shipping incident in the Torres Strait could lead to serious pollution were unacceptably high. As a result, Australia and Papua New Guinea jointly proposed an extension to the Great Barrier Reef PSSA to include the waters of the Torres Strait. This was approved by the Marine Environmental Protection Committee (MEPC) of the IMO in July 2005 through a resolution recommending protection for the area and that governments were to inform the relevant ships flying their flags to comply with the system of pilotage introduced by Australia.⁴⁶

National Interests

Australia has been active over the years in promoting measures to preserve and protect the marine environment, particularly from ship-sourced marine pollution, and to conserve marine living resources. For example, Australia has taken a strong stand at the IMO in developing international instruments to prevent the introduction of foreign organisms through discharge of ballast water and to provide compensation for oil spill damage from ships other than oil tankers.⁴⁷

The Australian community has a strongly developed consciousness of the importance of a clean marine environment. Shipping accidents in Australian waters attract considerable media attention and public engagement. Public outrage would result from a major shipping accident in the Torres Strait and the Australian government would be severely criticized if it was found to have not taken all necessary precautions to prevent such an accident. After accidents, there have even been periodic calls over the years for shipping traffic to be denied access to the Inner Route of the Great Barrier Reef.⁴⁸ It is not surprising, therefore, that

Australia has a long history of taking strong measures in relation to pilotage in the waters of the Great Barrier Reef and Torres Strait.

An example of the type of accident that could occur in the Torres Strait, and the public uproar that could result, arose in 2000 when the 22,000-tonne Malaysian-registered container ship *MV Bunga Teratai Satu* ran aground in the Great Barrier Reef Marine Park on Sudbury Reef off Cairns.⁴⁹ The vessel was on passage in the Inner Route of the Great Barrier Reef, but outside the compulsory piloted areas. The ship carried 1200 tonnes of fuel oil. It was eventually refloated without an oil spill, but about 2000 square meters of the reef were damaged by the impact of the vessel and it contaminated a larger area with the toxin tributyltin (TBT), a component of the ship bottom's antifouling paint. The shipowners were fined A\$400,000, after previously having agreed to pay cleanup costs of A\$1 million.⁵⁰ The incident generated great public interest and it led to the Great Barrier Reef Marine Park Amendment Act 2001 that redefined and extended the compulsory pilotage area in the Great Barrier Reef Marine Park.⁵¹

Australia has been active in protecting and preserving its marine environment, including being prominent in moves over the years to develop international regimes for PSSAs and marine protected areas (MPAs). In addition to the two PSSAs designated in littoral waters, Australia has an extensive estate of 14 MPAs that are Commonwealth reserves under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)⁵² as well as additional marine parks managed by state governments.⁵³

Environmental Protection Under UNCLOS

Articles 192 to 237 of UNCLOS Part XII, "Protection and Preservation of the Marine Environment," set out a detailed regime to protect and preserve the marine environment. All states who are parties to UNCLOS, including bordering states to international straits, are bound to give them weight. Whether a state sees its national interest principally in shipping or as a border state, or both, it is bound to be concerned that all reasonable measures are taken and this includes in the Torres Strait. All shipping and shipper states have an interest in and obligation to this end. Part XII should be encouraged, implemented, and enforced by all states.

Further, states have an "obligation" under UNCLOS Part XII to protect and preserve the marine environment.⁵⁴ All states are to take, individually or jointly, "all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment . . . using the best practicable means at their disposal. . . ."⁵⁵ It would lie ill with a flag state to object to a pilotage regime in the light of its obligations to take "all measures necessary to ensure activities under their direction or control" do not cause "damage by pollution to other States and their environment."⁵⁶ It also would be remiss for such states to not support regimes that minimize "to the fullest possible extent" pollution from vessels and in particular "measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea."⁵⁷ Additionally, states have an obligation to cooperate on a global and regional basis in formulating international rules, standards, and recommended practices and procedures consistent with UNCLOS, "taking into account characteristics of regional features."⁵⁸

It has been suggested that these obligations include flag states complying with the MEPC Resolution of 2005 regarding Australia's system of pilotage in the Torres Strait.⁵⁹ If one of its ships were to go aground or be in a collision, due to navigational insufficiency, with a resulting large oil spill in the Torres Strait, would the flag state have complied with

these provisions if it had derogated from the compulsory pilotage regime? This could be a difficult line for the flag state to pursue.

The border states to the Torres Strait also have obligations under UNCLOS Part XII. Australia and Papua New Guinea have an obligation to ensure that they adopt laws for the prevention, reduction, and control of marine pollution from foreign vessels, including those exercising the right of innocent passage, provided they do not hamper that right.⁶⁰

Before leaving this aspect, although the provisions of UNCLOS should be read consistently with the language in the particular provisions and consonantly with the other provisions throughout the Convention, this does not determine the balance between various parts of the Convention. In this case, the balance is between Part III, relating to transit passage, and Part XII, relating to protection and preservation of the marine environment. It has been said that care should be taken against the “greening” of UNCLOS because it is carefully balanced as to competing rights and obligations. This point has weight. However, it needs to be borne in mind that conditions change and, in the 30 years since the provisions of UNCLOS were negotiated, the world has come to realize the magnitude of dealing with climate change and the significant part that oceans play in it. If state parties to UNCLOS do not give great weight to the growing importance of protection and preservation of the marine environment, they may well be failing in their international obligations.

Finally, on this aspect of the construction, true meaning, and effect of UNCLOS, it should be mentioned that specific provisions carry more weight than general ones. The specific words of Part III, relating to transit passage, and Part XII, relating to the marine environment, will be set out below. However, there is no reason for specificity in one part to dominate that in another. The details of the negotiations leading up to the 1982 agreement on the UNCLOS provisions, the *travaux préparatoires*, and the delegates’ speeches are all relevant, but there is not space here to canvass them. It is sufficient for present purposes to say that the Convention should be read as a whole.

Specific Legal Considerations

Transit Passage

Part III of UNCLOS deals with “International Straits” and, within it, Section 2 establishes the rights and obligations of “Transit Passage.” It seems clear enough that the Torres Strait is an international strait because it is a strait used for international navigation between one part of the high seas or EEZ and another such part, as required by Article 37. Therefore, the UNCLOS regime of transit passage applies to it. It is expressly provided in Article 34 that, subject to the other provisions of UNCLOS, the bordering states may exercise their sovereignty over such straits.

It may be noted that there is some doubt about the total acceptance of transit passage as part of customary international law and practice. Scovazzi has written that, “in international practice the transit passage regime has been the subject of a series of exceptions, reservations, declarations, qualifications, attenuations” and “it is therefore possible to argue that the UNCLOS transit passage regime is still far from fully corresponding to present customary international law.”⁶¹ Churchill and Lowe have agreed that a general right of transit passage is not yet established in customary international law⁶² and two U.S. authors have observed that, “the transit passage regime has not been accepted universally; and some States have sought to impose restrictions on the use of these straits inconsistent with the terms of the Convention.”⁶³

Indeed, Scovazzi has further noted that the right of transit passage may increasingly be qualified in the future by the growing trend among coastal states to introduce measures for the protection of the marine environment that impact on navigation.⁶⁴ This reflects both the higher shipping traffic and increased carriage of cargoes that are potentially hazardous to the marine environment. There is a growing concern for the health of the waterways of the world and inevitably this will have some impact on the navigational rights and freedoms that may have been customary in the past.⁶⁵

It is appropriate to repeat at this juncture that the transit passage regime applies only to the route between the Arafura Sea and the Coral Sea that passes through the Torres Strait using the Great North East Channel. This is the only route that meets the criteria of a strait used for international navigation between one part of an EEZ or the high seas and another. The other passages through the Torres Strait are all shallow, narrow, and poorly charted and are not used for international navigation and, as noted above, shipping that uses the Great Barrier Reef Inner Route passes through Australia's internal waters.

Transit Passage Rights and Border States' Rights

UNCLOS Part III provides that all ships and aircraft enjoy the right of "transit passage," which means the exercise of freedom of navigation and overflight solely for the purpose of continuous and expeditious transit of a strait used for international navigation.⁶⁶ The duties of transit passage ships include proceeding in their normal modes unless distress or *force majeure* dictates otherwise. Such ships also have the obligation to comply with "generally accepted international regulations, procedures and practices" for safety at sea and for the "prevention, reduction and control of pollution."⁶⁷ It may be seen from this that vessels exercising transit passage are to conduct themselves in accordance with good seamanship and practices. Good seamanship and practices include taking a compulsory pilot in many situations. Nearly all of the major ports of the world require ships to take compulsory pilots in order to reduce the risk of shipping accidents, and it is good seamanship for them to do so.

UNCLOS Part III also expressly provides that states bordering international straits may adopt relevant laws and regulations⁶⁸ relating to transit passage, including with respect to the safety of navigation by providing sea-lanes and traffic separation schemes,⁶⁹ which the Australian government has done. What is not so clear is whether border states' rights include adopting laws and regulations for the "safety of navigation" generally or whether they are restricted only to laws involving sea-lanes and traffic separation. There is an argument, and it is only an argument, that the correct reading of the key provision, Article 42(1)(a), is that the obligation on border states for the "safety of navigation" is at large and that "regulation of traffic" is constrained only to sea-lanes and separation schemes. If this is correct, the Article supports general wide-ranging provisions for the safety of navigation and thus, in the Torres Strait, there is no reason that safety of navigation should not include compulsory pilotage, provided that it is proportionate to the risk.

Further, Article 43 provides that user and border states should cooperate and by agreement establish and maintain navigational and safety aids and "other improvements" in navigation and to prevent, reduce, and control pollution. This could be extended to considerations of pilotage being made compulsory for those ships that pose the most risk to themselves, to others, and to the marine environment.⁷⁰ This emphasizes that it is not only border states that have obligations, but also user states and that they too should agree and cooperate with Australia and Papua New Guinea. It is arguable that this includes cooperating to apply and enforce compulsory pilotage on those vessels that pose the greatest

risk. Generally, it may be seen that UNCLOS Part III also has strong provisions about the protection and preservation of the marine environment.

Finally, on these points, UNCLOS Part III has some provisions, but Part XII has strong provisions for the protection and preservation of the marine environment. The first and major provision in Part XII is Article 192, which provides that states have the obligation to protect and preserve the marine environment. It is followed by Articles that enjoin states to do this individually and by region, using the best practicable means at their disposal and to cooperate on a global and regional basis to this end. It is submitted these are important injunctions on border states with a PSSA in a dangerous navigational strait, and Australia and Papua New Guinea should be given due credit for what they have done in this regard.

Obligation Not to Deny, Hamper, or Impair Transit Passage

Having canvassed the main arguments in favor of the Australian position, it is now appropriate to turn to the arguments against it, which in the main are that compulsory pilotage offends certain express provisions in UNCLOS. These provisions are that:

1. ships (and aircraft) enjoy the right of transit passage and it should not be “impeded”;⁷¹
2. the laws and regulations adopted by states bordering international straits should not “in their application have the practical effect of denying, hampering or impairing the right of transit passage”;⁷² and
3. states bordering international straits are not to “hamper” and neither should there be any “suspension” of transit passage.⁷³

In relation to the first argument that the compulsory pilotage regime “impedes” the transit passage of shipping, the Torres Strait system of compulsory pilotage certainly has some regulatory aspects. It requires the prescribed ships to communicate their likely arrival at the boarding ground, to maneuver the ship to make it available for safe boarding by the pilot, to comply with the pilot’s advice to the master during the navigational passage, and, finally, to maneuver the ship to allow the pilot to disembark safely. A generally accepted meaning of the word “impede” is to “obstruct in progress or action; to hinder; to stand in the way of.”⁷⁴ All of the actions of the ship and pilot mentioned above are ordinary conduct of responsible ships throughout the world in pilotage areas. If port pilotage is taken as an example, these steps are routine. All ships, whether entering or leaving the port, comply with them. It is difficult to see that this system impedes shipping. Many would consider that having a pilot actually assists shipping. Similar considerations apply to the word “denying” the transit passage, and to the “suspension” of it. It is suggested that the facts are such that the Torres Strait compulsory pilotage system does not impede, deny, or suspend passage so these arguments may be put to one side.

The next point is to consider whether the compulsory pilotage regime has the “practical effect of . . . hampering or impairing” the transiting ships. The word “practical” should be emphasized because the wording of UNCLOS looks to the practical effects and not to theory or principle. It therefore is a question of fact and would need to be the subject of evidence from knowledgeable and informed sources as to whether, in fact, the practical effect of the regime hampers or impairs the ships so affected. The meaning of “hampering” for relevant purposes is “to obstruct or impede in action; to fetter; to entangle, encumber or embarrass.”⁷⁵ For its part “impairing” means “to make worse, less valuable or weaker, to lessen injuriously; to damage, injure.”⁷⁶ It may be seen that the meanings attributed to these words can have wide implications and would have to be construed in context. The context

here is that of a major foreign ship entering a difficult and dangerous passage through pristine waters. It is suggested that this requires some substantial obstruction, fettering, entanglement, or general worsening of the passage of the ship so that, when applied to shipping, it exceeds normal good seamanship practice.

Of course, it is quite possible that a compulsory pilotage system could be operated in such a manner as to hamper or impair transit passage. If pilots were not available as required, if the fees were extortionate, or if the pilots were inefficient or incompetent, then it could be said that such a regime would hamper or impair straits passage. In Australia's case, however, the evidence does not justify any such description. The pilots are readily available, they are efficient and competent, and the fee is reasonable (about A\$4,000 per ship per passage). As mentioned above, it is a question of fact and subject to the evidence but, from what is publicly known, no such criticism could responsibly be laid at the door of the pilotage companies or of the Australian government that administers the system.

As has already been noted, the regime does not apply to all ships. It is restricted in its application to ships that, because of their size or cargo, present the greatest risk of pollution or hazard to other shipping, and the regime does not apply to those categories of vessels with a lesser risk profile. An "offense" is committed only when a prescribed vessel fails to take a pilot in the prescribed area and none of the numerous defenses or exemptions apply.⁷⁷ It would be possible, although undesirable, for ships over 70 meters and tankers to pass and repass in the Torres Strait without sanction if they did not subsequently enter an Australian port, since the Australian authorities will not stop, board, or detain a vessel while on passage. Also as mentioned above, warships and noncommercial government ships are not subject to the regime,⁷⁸ although one would think that many of them would be pleased to have an experienced local pilot on board. Most, if not all, U.S. warships take a pilot when they pass through the Great Barrier Reef and the Torres Strait.⁷⁹

The 2005 IMO Resolution

The MEPC resolution that designated the Torres Strait as an extension of the Great Barrier Reef PSSA was passed on July 22, 2005. The keywords for present purposes are that the MEPC:

1. "designates the Torres Strait . . . as an extension of the [GBR] Particularly Sensitive Sea Area"; and
2. recommends that governments "recognize the need for effective protection of the [Great Barrier Reef and Torres Strait] region and inform ships flying their flags that they should act in accordance with Australia's system of pilotage for merchant ships 70 m in length and over or oil tankers, chemical tankers, and gas carriers, irrespective of size when navigating" the Inner Route of the Great Barrier Reef (in specified parts) and the Torres Strait and Great North East Channel (the latter in specified, but for present purposes, irrelevant parts).⁸⁰

Further, in its recitations, the resolution noted that the MEPC was "aware of the ecological, social, economic, cultural, scientific and educational value of the Torres Strait, as well as its vulnerability to damage by shipping traffic and activities in the area and the steps taken by Australia and Papua New Guinea to address that vulnerability."⁸¹

The background against which the MEPC resolution was passed included that the Australian system of pilotage in the Great Barrier Reef already included compulsory pilotage for certain areas. It is acknowledged that the wording of the resolution was much debated and its final wording was carefully chosen so delegates would support it. However,

it may reasonably be advanced that, when the resolution recommended that governments inform their flagged ships that they should act in accordance with "Australia's system of pilotage," this inferentially could include some compulsory pilotage as it was then part of the system.

The argument against the Australian position on this point is that the MEPC resolution does not clearly and expressly authorize compulsory pilotage for the Torres Strait. This is true and carries some weight. The argument on the other side, however, is that the resolution does not prohibit compulsory pilotage and it was inferentially open if Australia so chose to include it.

Is the Australian Compulsory Pilotage Regime a Precedent for Other International Straits?

It may fairly be said that those who oppose Australia's compulsory pilotage regime are not interested in the Torres Strait, but their real concern is that it could be taken as a precedent for one or more other international straits. There are international straits that are subject to tension and, if their bordering states should impose compulsory pilotage, it could be manipulated against the interests of selected foreign powers. This is a serious concern. There are, however, several reasons that the Torres Strait situation could not be used as a precedent for other straits. The Torres Strait is almost unique because it is part of one of the marine wonders of the earth: the Great Barrier Reef. The Great Barrier Reef is much valued for its marine environment and it is listed on the register of World Heritage sites.⁸² The Great Barrier Reef has a special administrative regime under the Australian government, which is now showing similar concern for the protection of the special area to its north.

The Torres Strait is probably the most hazardous navigational international strait in the world. The description of being a hazardous strait is somewhat subjective, of course, but the hazards include shallow depth in parts, an unusual tidal system that has strong tidal and cross-channel flows, numerous coral reefs, narrowness in the Prince of Wales Channel, and unstable weather patterns that include summer cyclones.⁸³ These are unusually hazardous conditions that are not replicated in other international straits.

Other points of distinction include that the Torres Strait is internationally recognized as ecologically important because of the PSSA status granted by the IMO⁸⁴ and that a voluntary pilotage regime has been in place in the Torres Strait for over 100 years, which experience has made efficient and effective.

In short, no other strait routinely used by international shipping is as narrow, shallow, or dangerous; has such a long history of pilotage; is an extremely sensitive marine area; and is of such great significance to the local indigenous peoples. Before any states bordering another strait used for international navigation could justify a compulsory pilotage regime, they would need to obtain the MEPC resolution that it was a PSSA and the bordering states would need to cooperate to have an efficient and effective pilotage regime. It is suggested that these points differentiate the Torres Strait.

The Position of States Not Party to UNCLOS

For those ships flagged with states that are not party to UNCLOS, there are no actual rights of transit passage because transit passage only emerged in international maritime law under that Convention.⁸⁵ Such ships probably come under the 1958 Convention on the Territorial Sea and the Contiguous Zone where there is a right to innocent passage in international straits on which the main restriction is that the right may not be suspended.⁸⁶ Because

the Australian compulsory pilotage regime does not attempt to suspend innocent passage through the Torres Strait, there can be no valid complaint by such states.

The Right of Enforcement for Noncompliance in the Torres Strait

The question arises as to what states may enforce a failure to comply with Australia's compulsory pilotage regulations. It is well established that a flag state has a right to make laws applying to its ships, their crews, and their passengers wherever they may be and that it has a right to enforce them. A flag state not only has a right, but also an obligation to ensure that its flagged ships comply with applicable international rules.⁸⁷ So, there is no doubt that a flag state could enforce the compulsory pilotage if it so chose.

As for Australia, the expressed practice is not to attempt enforcement while an offending ship is on passage, but to enforce only when that ship subsequently enters an Australian port. It is well established that if a ship enters a port, then it does so subject to such laws and conditions as the port state may impose. International comity, however, has it that port states refrain from imposing their laws on the internal matters of a foreign ship unless they have a positive interest in the subject matter (the "internal economy rule"⁸⁸). In the normal situation in port, therefore, the ship's captain and crew have their rights and obligations regulated according to the laws of the flag state. The Australian compulsory pilotage regime does not seek to alter the internal economy rule⁸⁹ because this regime is a regulatory system external to the internal laws of the ship.

It is generally worth noting that, when it comes to pollution of the marine environment, the coastal state has wide powers to investigate and enforce against ships accused of dumping or polluting or in relation to risks arising from a maritime casualty.⁹⁰ Because the point of the Australian pilotage regime is to increase the safety of navigation and reduce the risks of pollution, this complies with those parts of UNCLOS directed toward safe shipping and protection of the marine environment. UNCLOS also expressly allows "appropriate enforcement measures" for breaches of maritime safety in traffic separation regimes and breaches of the marine pollution requirements.⁹¹

It follows that, if a prescribed vessel enters an Australian port after it has traversed the Torres Strait without taking a pilot, the Australian government is entitled to enforce its law against it. As a matter of Australian domestic law, unless some defect is revealed in the domestic law, the Australian courts will convict where the evidence is established to prove the charge.

In short, both the flag state and the port state, Australia in this case, have a right of enforcement for offenses against the compulsory pilotage regime.

Conclusions

The 2005 MEPC resolution, proposed by Australia and Papua New Guinea, that the Torres Strait be a PSSA and recommending to states that they inform their ships to conform to Australia's pilotage system signaled to the maritime world the importance of this marine environment and the desirability of prescribed ships conforming to the system. The resolution was based on evidence that merely recommending that prescribed ships take pilots in the Torres Strait was insufficient. Something more was required if ship safety and consequent risks to the marine environment were to be reduced.

In political terms, the situation in Australia with regard to compulsory pilotage through the Torres Strait is very clear. The Commonwealth is committed to the protection and preservation of the marine environment and this position is strongly supported by the Australian

public. A shipping accident in the Torres Strait leading to significant environmental damage would have major political repercussions if the governments concerned had not taken all possible precautions against such an accident.

There has been some international criticism of Australia's position with respect to making the pilotage compulsory, but the Australian government has indicated that it will defend its position.⁹² The waters of the Torres Strait are also of great significance to the indigenous peoples of the region who have a strong cultural affinity with them. Australia's position accords with the increased international concern for the protection and preservation of the marine environment and with increased appreciation of the rights and interests of indigenous peoples.

The criticism of Australia's compulsory regime in the Torres Strait essentially comes down to whether transit passage is thereby hampered. The critics seem not to care particularly about the Torres Strait, but their concern is whether the compulsory pilotage regime in the Torres Straits may be used as a precedent for other international straits. This article has argued that this area is different and could not be so used.

Some doubt certainly does exist about whether or not the compulsory pilotage regime for transit passage in an international strait can be justified legally. This article has attempted to address the issues. In short, Australia seeks to justify it on the grounds of the MEPC resolution and the provisions in UNCLOS that oblige states to take proportionate steps to increase shipping safety and thereby reduce the risks of marine pollution. Whether these steps offend against the rights of transit passage has to be left for others to decide. This article has canvassed the facts and the arguments in support of compulsory pilotage, and indicated that they are almost certainly lawful in Australian domestic law and that there are also good arguments in its favor in international law.

To obtain a definite decision on the matter, a state would need to take Australia to an international court, tribunal, or arbitration on the issue or seek an advisory opinion.⁹³ This would decide the matter, but it is suggested there is also much to be said for international diplomatic negotiations. States have an obligation to cooperate, so it would be preferable for concerned states to engage in diplomacy and negotiation with the Australian government. It would be a sad outcome if this did not occur and if a court or tribunal decision were to go against Australia and then an unpiloted vessel had an accident in the Torres Strait leading to grave environmental damage and even to a blockage of the strait. This would be a maritime disaster from which no party would be the winner.

Notes

1. Compulsory pilotage was introduced on 6 October 2006 by Australian Marine Notice 8/2006 dated 16 May 2006 and associated Marine Orders Part 54, available at www.amsa.gov.au/shipping_safety/marine_notices/2006/marine_notices_8_2006.asp (accessed on 23 January 2009).

2. See R. C. Beckman, "PSSAs and Transit Passage—Australia's Pilotage System in the Torres Strait Challenges the IMO and UNCLOS," *Ocean Development and International Law* 38 (2007): 337.

3. United Nation Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 *U.N.T.S.* 397.

4. IMO Resolution MEPC.133(53) adopted on 22 July 2005 and see IMO Document MEPC 53/24/Add.2. For details of all of the IMO PSSAs, see Natalia Martini and Giancarlo Olimbo "Ecosystems Approach to Oceans: The Role of the IMO," *Journal of International Maritime Law* 13 (2007): 21–29.

5. Full details about PSSAs may be found at the IMO Web site at www.imo.org. Follow prompts to "marine environment" and then "PSSAs."
6. The most cogent criticisms have been raised by Beckman, *supra* note 2.
7. T. Koh, "UN Convention on the Law of the Sea—A Passage to Maritime Safety," *Straits Times Interactive*, 28 February 2007.
8. This section is a revised version of a similar discussion in Sam Bateman, "The Compulsory Pilotage Regime in the Torres Strait—A 'Melting Pot' of Operational, Legal and Political Considerations," in *The Future of Ocean-Regime Building: Essays in Tribute to Douglas M. Johnston*, ed. Aldo Chircop, Ted L. McDorman, and Susan J. Rolston (forthcoming).
9. R. Babbage, "The Strategic Significance of Torres Strait," *Canberra Papers on Strategy and Defence* No. 61 (Canberra: Strategic and Defence Studies Centre, Australian National University, 1990), 3.
10. S. B. Kaye, *The Torres Strait* (The Hague: Martinus Nijhoff, 1997), 4.
11. Commonwealth of Australia, *Australian Seafarers Handbook* (Wollongong: Australian Hydrographic Services, 2007), 111. Accurate tidal calculations are important and need experience and skill. Some vessels pass through the Torres Strait with only about 1 meter under their keels and, if they miscalculate the tidal window, they may well hit the bottom.
12. RAN Hydrographer, "The Meteorological Effects on Maritime Operations Conducted in the Torres Strait Region," in Babbage, *supra* note 9, at 217–218.
13. The first pilot licenses for the area were issued in 1884. See J. C. H. Foley, *Reef Pilots—The History of the Queensland Coast and Torres Strait Pilot Service* (Sydney: Banks Bros. & Street, 1982), 34.
14. IMO Document NAV 50/3, "Routeing of Ships, Ship Reporting and Related Matters—Torres Strait PSSA Associated Protective Measure—Compulsory Pilotage," submitted by Australia and Papua New Guinea, dated 22 March 2004, para. 2.2.5.
15. Kaye, *supra* note 10, at 125. UNCLOS, *supra* note 3, art. 38(2) defines transit passage in terms of transit from one part of the high seas of exclusive economic zone (EEZ) to another part of the high seas or an EEZ. Entering the Australian territorial sea and internal waters precludes this definition applying.
16. *Ibid.*, at 15.
17. *Australian Seafarers Handbook*, *supra* note 11, at 109.
18. The research is referenced in J. Roberts, *Marine Environment Protection and Biodiversity Conservation—The Application and Future Development of the IMO's Particularly Sensitive Sea Area Concept* (Berlin: Springer, 2007), 151.
19. IMO Document NAV 50/3, *supra* note 14, para. 5.8.
20. J. Frank and D. Osler, "Accidents Double on Fleet Boom, Officer Shortage," *Lloyd's List* (online), 21 February 2008, available at www.lloydslist.com/ll/news/viewArticle.htm?articleId=20017507533&src=rss (accessed on 4 February 2009).
21. Interviews with the reef pilots who pilot in the Torres Strait on 27 March 2008, revealed regular incidents where the navigational skills were found wanting on the internationally flagged ships they piloted.
22. The legislative basis for these provisions is in the Navigation Act 1912 (Cth), part IIIA, div. 2, and in AMSA Marine Order No. 54, "Coastal Pilotage," issue 4 (Order No. 10 of 2006).
23. Australian Marine Notices 8/2006, dated 16 May 2006, and 16/2006, dated 3 October 2006.
24. Navigation Act 1912 (Cth), s.186L.
25. REEFREP is a mandatory ship reporting system that was adopted by the IMO in 1996. In December 2004, REEFREP was enhanced with the introduction of a vessel traffic service and became the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS). See *Australian Seafarers Handbook*, *supra* note 11, at 157.
26. Statement by Australian delegation to IMO Assembly, IMO Document Ref. A25/C.2/WP.1, para. 50.
27. Treaty Between Australia and the Independent State of Papua New Guinea Concerning the Maritime Boundaries in the Area Between the Two Countries, Including the Area Known as Torres

Strait, and Related Matters, done at Sydney on 18 December 1978, entered into force on 15 February 1985, *Australian Treaty Series* 1985 No. 5.

28. Kaye, *supra* note 10, at 146–150.

29. Torres Strait Treaty, *supra* note 27, art. 3(2).

30. *Ibid.*, art. 3.

31. Coastal Waters (State Powers) Act 1980 (Cth), sec. 3. These sea limits are set out on the Geoscience Australia Web site at www.ga.gov.au/nmd/mapping/marbound/bndrs.jsp (accessed on 6 June 2006).

32. See M. White, *Australasian Marine Pollution Laws*, 2d ed. (Sydney: Federation Press, 2008), 85–110.

33. See *ibid.*, at 85–110; and B. R. Opeskin and D. R. Rothwell, “Australia’s Territorial Sea: International and Federal Implications of the Extension to 12 Miles,” *Ocean Development and International Law* 22 (1991): 408–410.

34. Seas and Submerged Lands Act 1973 (Cth), sec. 7 gave power to make proclamations of the Australian baselines. Proclamations were made in *Gazette No. S 29*, of 9 February 1983, and *Gazette No. S 57*, of 31 March 1987.

35. See B. R. Opeskin, “The Law of the Sea,” in *Public International Law—An Australian Perspective*, ed. S. Blay, R. Piotrowicz, and B. M. Tsamenyi (Melbourne: Oxford University Press, 1997), 332.

36. Seas and Submerged Lands (Territorial Sea Baseline) Proclamation 2006, Federal Register of Legislative Instruments F2006L00525, 15 February 2006.

37. H. Burmester, “Review of the Strategic Significance of the Torres Strait: Legal Issues,” in Babbage, *supra* note 9, Fig. 1 at 305.

38. Seas and Submerged Lands Act 1973 (Cth), sec. 7 gave power to make proclamations of the Australian territorial sea limits. The outer limit of the territorial sea was proclaimed to be 12 nautical miles seaward of the baseline by proclamation in *Gazette No. S 297*, 13 November 1990.

39. N. C. Duke, J. C. Ellison, and K. A. Burns, “Surveys of Oil Spill Incidents Which Have Affected Mangroves,” Appendix 1, at 325–330, to N. C. Duke and K. A. Burns, “Fate and Effects of Oil and Dispersed Oil on Mangrove Ecosystems in Australia,” in *Environmental Implications of Offshore Oil and Gas Developments in Australia: Further Research* (Canberra: Australian Petroleum Production and Exploration Association, 2003).

40. Kaye, *supra* note 10, at 146–150.

41. IMO Resolution MEPC.45(30) adopted on 16 November 1990.

42. IMO Resolution A.619(15) adopted on 16 November 1987.

43. IMO Resolution A.710(17) adopted 6 November 1991.

44. IMO Document LEG 89/15, “Torres Strait PSSA Associated Protective Measures—Compulsory Pilotage,” submitted by Australia and Papua New Guinea, dated 24 August 2004, para. 6.

45. Roberts, *supra* note 18, at 156.

46. IMO Resolution MEPC.133(53) adopted on 22 July 2005, and see IMO Document MEPC 53/24/Add.2

47. Australia was one of the first countries to submit papers to the MEPC and Legal Committee, respectively, calling for the development of international measures to address these issues; e-mail statement by Paul Nelson, Manager—Environment Protection, Maritime Standards Division, Australian Maritime Safety Authority, 14 October 2008. Nelson is an Australian delegate to the MEPC.

48. BBC News, “No Bans on Barrier Reef Ships,” 6 November 2000, available at news.bbc.co.uk/1/hi/world/asia-pacific/1009833.stm (accessed on 4 February 2009).

49. Australia, Parliamentary Library, Bills Digest No. 128 2000–01, Great Barrier Reef Marine Park Amendment Bill 2001, 17 May 2001, available at www.aph.gov.au/library/Pubs/bd/2000-01/01BD128.htm. See also Australian Safety Transport Bureau, ATSB Transport Safety Investigation Report, Marine Occurrence Investigation No. 162, released 31 May 2001 (Bunga Teratai Satu), available at www.atsib.gov.au.

50. For details of the court cases, see A. Girle "Record \$400,000 Fine for Environmental Offence," *Australian Environment Review* 16 (2001): 10.

51. Act No. 48 of 2001.

52. Environment Protection and Biodiversity Protection Act 1999, chap. 5, part 15, div. 4; EPBC Regulations 2000, part 12. For the numerous proclamations of the Commonwealth marine parks and reserves, see the Legislative Instruments under the EPBC Act, available at www.comlaw.gov.au/ComLaw.

53. Australian Department of the Environment and Water Resources, available at www.environment.gov.au/coasts/mpa/.

54. UNCLOS, *supra* note 3, art. 192.

55. *Ibid.*, art. 194(1).

56. *Ibid.*, art. 194(2).

57. *Ibid.*, art. 194(3)(b).

58. *Ibid.*, art. 197.

59. For example, *ibid.*, art. 211, especially para. 2, places a direct responsibility on flag states to adopt "laws and regulations for the prevention, reduction and control of pollution." For their part, coastal states have rights within the territorial sea and their EEZ to enforce such provisions provided they do not "hamper" innocent passage. *Ibid.*, art. 211(4) and (5).

60. *Ibid.*, art. 211(4) and (5).

61. T. Scovazzi, "Management Regimes and Responsibility for International Straits," in *The Straits of Malacca—International Cooperation in Trade, Funding and Navigational Safety*, ed. Hamzah Ahmad (Petaling Jaya: Pelanduk, 1997), 344.

62. R. R. Churchill and A. V. Lowe, *The Law of the Sea*, 3d ed. (Manchester: Juris/Manchester University Press, 1999), 113.

63. G. V. Galdorisi and K. R. Vienna, *Beyond the Law of the Sea—New Directions for U.S. Oceans Policy* (Westport, CT: Praeger, 1997), 147.

64. Scovazzi, *supra* note 61, at 332.

65. S. Bateman, D. R. Rothwell, and D. VanderZwaag, "Navigational Rights and Freedoms in the New Millennium: Dealing with 20th Century Controversies and 21st Century Challenges," in *Navigational Rights and Freedoms and the New Law of the Sea*, ed. D. R. Rothwell and S. Bateman (The Hague: Martinus Nijhoff, 2000), pp. 314–335.

66. UNCLOS, *supra* note 3, art. 38.

67. *Ibid.*, art. 39.

68. *Ibid.*, art. 42 and 43.

69. *Ibid.*, arts. 42(a) and 41 (sea-lanes and traffic separation schemes in straits).

70. *Ibid.*, art. 43(b).

71. *Ibid.*, art. 38(1).

72. *Ibid.*, art. 42(2).

73. *Ibid.*, art. 44.

74. *The Shorter Oxford English Dictionary* (OED), Vol. 1 (Oxford: Oxford University Press, 1973), "impede," at 1039.

75. *Ibid.*, "hamper," at 919.

76. *Ibid.*, "impair," at 1027.

77. Navigation Act 1912(Cth), s. 186I, and part IIIA, div. 2, generally. Section 186I provides: Offence to navigate without a licensed pilot (1) If: (a) a ship is a regulated ship; and (b) the ship navigates in a compulsory pilotage area; and (c) the ship navigates in that area without a licensed pilot; the master and the owner of the ship each commit an offence.

78. See above under "Pilotage System."

79. Nelson, e-mail, *supra* note 47. Confirmed to Sam Bateman in interview with USN destroyer commanding officer, Singapore, 10 April 2007.

80. MEPC Resolution MEPC.133(53) adopted on 22 July 2005, paras. 1 and 3. The MEPC resolution also recognized the establishment of a two-way route through the Torres Strait, para. 2.

This and the traffic separation scheme are not contentious because they are clearly authorized by UNCLOS, *supra* note 3, art. 41. They will not be discussed here.

81. IMO Resolution MEPC. 133(53) adopted on 22 July 2005, the first recitation to the resolution.

82. See United Nations Educational Scientific and Cultural Organisation, Great Barrier Reef UNESCO Ref. 154, listed 1981, available at whc.org/en/list/154 (accessed on 23 January 2009).

83. Both authors are former naval navigators and qualified master mariners and, although they are aware of other dangerous international straits, the dangers in the Torres Strait are great. Any experienced navigator who studies the large-scale charts of the area and reads the navigational material would draw this conclusion.

84. The IMO has granted PSSA status to only 11 areas. See the IMO Web site at www.imo.org. See also Martini and Olimbo, *supra* note 4.

85. UNCLOS, *supra* note 3, art. 37(1).

86. Territorial Sea and the Contiguous Zone Convention, Geneva, 29 April 1958, 516 *U.N.T.S.* 105, art. 16(4).

87. UNCLOS, *supra* note 3, art. 217 deals at length with enforcement by flag states.

88. See Churchill and Lowe, *supra* note 62, at 65–68.

89. This was settled as Australian law in the unanimous decision of the High Court in *Maritime Union of Australian ex parte CSL Pacific* (2003) 214 CLR 397; [2003] HCA 43 (7 August 2003). Whether the Australian law actually applies to a particular ship or situation is decided by consideration of the provisions of the relevant legislation.

90. UNCLOS, *supra* note 3, arts. 216–221.

91. *Ibid.*, art. 233.

92. The actions of the Australian government delegations at the various IMO meetings where the Torres Strait issue has been discussed indicate that it will defend its position. Nelson, e-mail, *supra* note 47.

93. There are only two reported international cases with anywhere near similar circumstances. In *United Kingdom, France, Italy and Japan v. Germany, (the S.S. Wimbledon)*, *P.C.I.J.* Series A, No. 1, 1932, 5–47, the United Kingdom was awarded damages against Germany for Germany's refusal to allow a UK ship to enter the Kiel Canal. The Court found this was in breach of the Treaty of Versailles, art. 380. In *United Kingdom v. Albania (The Corfu Channel Case)* [1949] *I.C.J. Rep.* 4–131, the issue was whether British ships had a right of innocent passage through an international strait or whether the passage was a breach of Albania's territorial sea rights. The facts that Albania fired on the ships and was aware of mining in the strait without warning the ships were also at issue. The imposition of compulsory pilotage by Australia is a long way from the facts of these cases.