

G8 Oceans Governance, 1975-2010

Harry Skinner, G8 Research Group

June 26, 2010

Significance of the Case

The state of the world's oceans has reached a tipping point. Never before in human history has the planet's most important habitat been in such peril. Covering roughly seventy per cent of the earth's surface, the oceans control the planet's climate; produce approximately eighty per cent of its oxygen; and serve as the primary source of food for over a billion people. In spite of the apparent immensity of the world's oceans, what was once considered inexhaustible and resilient has become finite and fragile. From the disappearance of fish stocks and coral reefs, to the growing threats of climate change, global warming, rising sea levels and the increasing pressure of excessive human use is destroying ocean life and vital coastal habitats. Making matters worse are the rising threats of maritime piracy and terrorism, which pose a significant threat to global trade and security, along with the Westphalian state's monopoly of force itself. In short, if current trends continue, and if there is a failure to responsibly govern the world's oceans, there is risk of much greater problems in the near future, coming at a much accelerated pace. The deadly oil drilling accident in the Gulf of Mexico on April 20, 2010, which quickly created the greatest environmental disaster in American history, showed how concentrated crises can erupt to cripple the oceans, and how hard it is for the world's greatest power, acting alone, to effectively respond. Together such challenges to the planet's oceans require effective collaboration at the international level if there is to be any hope of success (Haward 2008).

Since 1975, the summit agenda of the Group of Seven (G7) major market democracies and now Group of Eight (G8), with Russia since 1998, has broadened considerably from macroeconomic management, energy and international trade, to include transnational issues such as the environment, crime and drugs, and a host of political-security concerns (G8 Research Group, 2008). Several of these issues directly affect and are affected by the oceans, yet no one has yet seriously considered the critical role of G8 ocean governance in the context of, and as a contribution to, G8 and global governance of the environment, energy, and maritime security – subjects that have become critical to the G8 in recent years. Most recently, on June 26, 2010, in the final communiqué of the Muskoka Summit, the G8 leaders issued a number of statements regarding ocean governance in the context of maritime security. They specifically mentioned the need for international cooperation to confront the growing threat of maritime piracy off the coasts of the African continent, and its links to drug trafficking and terrorism. The G8 countries committed to a range of measures, which included improving the ability of African states to secure their own coastal waters, and supporting UN Security Council Resolution 1918, which calls on countries to criminalize piracy within their national laws.

The Scholarly Debate

Scholars' views of the G8's performance with regard to ocean governance vary widely, from criticism to compliments of the G8's intention, focus, and actions (or lack thereof) in their attempt to understand the issues and causes that lie behind.

The first school of thought sees the G8 as a "do nothing" institution due to the opposition of the United States under President George W. Bush (Smith 2007; the *Independent* 2005). Its scholars argue that despite the increasing awareness of the harmful effects of anthropogenic activity on the planet's oceans, the G8 has proved unable to address these immensely serious issues. Susan Smith (2007) argues that at the 2007 Heiligendamm summit in Germany, despite increasing scientific evidence that climate change is negatively affecting the planet's oceans, the G8 did nothing to address the issue. The inaction, she argues, was due to the intransigence of President Bush undermining the aspirations of the G8 to reach a climate change agreement. President Bush rejected outright the United Nations Framework Convention on Climate Change (UNFCCC) process as the proper forum for serious climate change negotiations, insisting on an American-led process building upon the Asia-Pacific Partnership (APP). This decision ultimately derailed the G8 summit of its ability to agree on any serious environmental agreements (Smith 2007).

The British newspaper, the *Independent* (2005), also adheres to this "do nothing" view. In its follow-up to the 2005 Gleneagles Summit, it wrote: "By the end of the century there could be harmful changes in the ocean food chain, directly affecting a range of vital organisms, and having a knock-on effect on larger marine animals. Half of the CO₂ produced stays in the atmosphere as the rest dissolves in the oceans and when it does so, it reacts with seawater to produce carbonic acid." The United States upset campaigners against global warming by seeking to remove the phrase "our world is warming" from a leaked draft of the Gleneagles summit communiqué, effectively crippling efforts for an environmental agreement (*Independent* 2005).

The second school sees the G8 as a centre of effective direction-setting ocean governance. Adherents argue that the G8 has done much to focus world attention on the threats to the marine environment, voice the importance of international collaboration, and offer basic concepts for dealing with the problem. Michael Byers (2010) views the G8 as an effective forum that provides the opportunity to raise delicate oceanic issues: "Even if some of these steps cannot be achieved, putting the Arctic on the G8 agenda would force non-Arctic governments to learn about the region and Canada's considerable rights, interests and actions there" (Byers 2010).

Nicholas Bayne (2000) argues that the [G8] summits of 1989-1991 did much to focus world attention on the environment. They promoted two basic concepts: environmental policies should be based on sound economics and work with markets; and global issues must involve all countries, so that developing countries are helped to avoid the errors of the industrial world. The summits also identified key subjects – the ozone layer, climate change, bio-diversity, conservation of forests and oceans – that came together at Rio in 1992 (Bayne 2000).

The third school views the G8 as a selective, second-best decision-maker on ocean pollution and maritime security in partnership with the United Nations (UN). Nicholas Bayne (2005) notes that at the Evian Summit in 2003, the G8 agreed on two action plans that dealt with the marine environment and tanker safety. The first of these

action plans promoted a range of measures to preserve and manage fisheries and to protect the oceans, mainly following up commitments made at the World Summit on Sustainable Development (WSSD) in August 2002. The second plan advocated actions stimulated by the sinking of the *Prestige* off the coast of Spain in 2003: faster phasing out of single hulled tankers, measures to prevent them transporting heavy-grade oil, and guidelines on ports refuge. Much of the follow-up on both action plans would take place in the International Maritime Organization (IMO). Bayne claims that these two action plans represented the first time the G8 had succeeded in reaching an agreement on any environmental topics for several years. He argues that this result was only achieved by avoiding controversial issues, such as European resistance to genetically modified organisms (GMO) and the American absence from the Kyoto Protocol on climate change and the Biodiversity Convention. Bayne also notes that at the 2002 Kananaskis summit in Canada, the G8 adopted a wide-ranging agreement on transport security, covering both air and sea transport of passengers and goods. These agreements were driven by security concerns in the wake of 9/11, required detailed discussion among officials and often led to terse exchanges, especially when the United States appeared to insist on more stringent rules for international travel than it applied domestically. Most of the follow-up to the G8 agreements was pursued through international institutions, especially the IMO (Bayne 2005).

A fourth school views the G8 as a centre of only deliberation, direction-setting, and decision-making on oceans, but not delivery and global governance development. Christine Lucyk, John Kirton, and Nicholas Bayne (2001, 2005) argue that G8 leaders make encouraging statements about the need to protect and sustain the world's oceans, but fail to follow through on their commitments. Lucyk and Kirton (2001) claim that the causes and effects of climate change and the resulting harmful effects on the ocean environment is perhaps one of the most potentially challenging and divisive issues for the G8. G8 inaction can be traced to the large divergence between costs and benefits, as the costs of emissions controls would be largely borne by the developed countries, while the benefits would accrue to developing countries (Lucyk and Kirton 2001).

Nicholas Bayne argues that international environmental policy was a major issue at the 1989 Paris Arch Summit, as two sessions of the leaders and one third of the Declaration were devoted to it. The next two Summits continued this attention, preparing for the Rio United Nations Conference on Environment and Development (UNCED) in June 1992. Those Summits did much to focus world attention on the environment, identifying key subjects - the ozone layer, climate change, biodiversity, conservation of forests and oceans - which came together at Rio. But the Summits did not focus on the tangle of institutions in this field. In consequence, there was a loss of momentum after Rio, with commitments not being met (Bayne 1997). Bayne's causal claim is rooted in transatlantic relations and domestic politics. He argues that there are many cases when the G8 leaders allow transatlantic relations and domestic pressures in their respective countries to frustrate agreement. He states: "the clearest example is the global environment, where the G8 summits have a generally poor record, with few examples of productive decisions. This is because of conflicting domestic pressures on either side of the Atlantic. Producer interests drive North American attitudes on energy issues, climate change, bio-diversity and food safety. In Europe on the other hand, as well as Japan, policy is shaped by pressure from consumers and environmental lobbies. So far the G8

governments have not been able to devise international agreements that reconcile these pressures.” Bayne (2005) also highlights that the G8 may have been unable to move past the deliberation to the delivery stage, due to the fact that the issue of the oceans has typically been delegated to environment ministers, and could have been taken off the summit agenda as a result.

Puzzles

Although the schools of thought and the scholars within them cover several aspects of G8 ocean governance, they do not provide a complete, descriptively accurate, and causally compelling account. First, none of the schools offer a comprehensive or detailed description of how the G8 has governed the oceans over the three decades since it started in 1980. Most of the schools focus only on one or two summits, and their historical record of the G8 dates back only to 1989. Lucyk and Kirton, for example, only examine the Okinawa Summit of 2000; Bayne only goes back as far as 1989. Likewise, Susan Smith (2007) focuses on only two of the G8 summits, Heiligendamm and Gleneagles.

The G8 first identified ocean governance as an issue in 1980. It has since appeared on the agenda at twenty-three of thirty-six, or sixty-four per cent, of the G8’s regular annual summits to 2010, excluding the issue specific, inter-sessional summits in 1985 and 1996. The schools do not take into account the sustained performance of the G8 at the 1985 to 1988 summits. None offer a discussion or explanation for the distinct phases of G8 ocean governance. This study thus offers the first such comprehensive, disciplined, detailed, and descriptive account of G8 ocean governance, one that highlights the key phases and turning points.

A second shortcoming is that these scholars only focus on assessing the contribution of the G8 to select environmental issues related to the ocean. Lucyk, Kirton, and Bayne, only focus on the environmental aspects of G8 ocean governance. The scholars of the first school do the same as well. However, a review of the oceans treatment in the G8 summit communiqués shows that since ocean governance first appeared as an issue in 1980, the G8 summit agenda has expanded to include a wide array of oceanic issues. Indeed, G8 ocean governance began with economic development, moved to the marine environment next, and came to maritime security at a later stage. The issues the G8 leaders discussed have ranged from the exploitation of marine resources and minerals, and the protection of marine biodiversity, to the enhancement of maritime security against terrorism. At the 1982 Versailles Summit the discussion on oceans focused on the exploitation of marine resources and minerals for economic gain. As early as 1985, the G8 began deliberating on how to best protect the marine environment. The next year, in 1986, G8 leaders were taking action regarding maritime security. In some cases, at the summits of 1986, 2002, 2007, and 2010, for example, the G8 addressed maritime security alone.

A third weakness is that few schools explicitly identify what has caused the G8 oceans governance they observe. Few offer a parsimonious and logically coherent cluster of causes that drive the observed effects. Smith (2007) and the *Independent* (2005), for example, only provide one causal claim for the performance of the G8 – the United States, and its President, thus offering a monocausal explanation based on one person in one member state.

Another shortcoming is that few of the schools and their authors include all of the

six functions of G8 governance in their analysis. The latter is necessary to provide an accurate and complete account of the G8's ocean governance. Some scholars focus only on conversational "deliberation," while others focus only on consensual "direction-setting." In addition, the schools do not ground their arguments in any international relations theory, or use any G8 governance models to help explain and support their arguments.

A fifth shortcoming is that none of the schools incorporate the agreements and action plans that the G8 has successfully promoted and produced on ocean governance. Such a contribution is evident through agreements such as the 1995 United Nations Fish Stocks Agreement, the numerous initiatives to protect against maritime oil spills, and the action plans that deal with maritime security. Based on the direction-setting of earlier G8 ocean governance, as early as 1992, the G8 had made the ratification of the 1995 UN Fish Stocks Agreement a priority, a choice that greatly contributed to its eventual incorporation into the structure of global ocean governance. As well, at the 2003 Evian summit, the G8 adopted two wide-ranging agreements on the marine environment and transport security. The first of these action plans promoted measures to preserve and manage fisheries and to protect the oceans, while the second plan advocated actions to quickly phase out single hulled tankers, measures to prevent them transporting heavy-grade oil, and guidelines on ports refuge (Bayne 2005).

An additional area that the schools do not fully cover is the record of compliance of G8 ocean governance commitments. This is a crucial measure of the effectiveness of the institution. Compliance analysis gives insight into whether or not the G8 can be considered an effective ocean governor in comparison to other institutions, such as the UN.

Thesis

This study argues that G8 ocean governance has unfolded in six phases: an initial period of little activity from 1975 to 1982; a period of increased G8 involvement from 1985 until 1993; another period of increased G8 involvement from 1995 to 1997; a spike in G8 involvement in 2000; reaching a high point in 2003; and rising activity from 2005 to 2010.

The Concert Equality Model of G8 governance best explains the particular pattern of G8 oceans governance (Fратиanni et al., 2005). This six-stage pattern is the result of four key causes. The first cause is the equalizing shock-activated vulnerability of the G8 countries, which they experience as: chronic, compounding stress and sudden severe, surprising shocks.

The causal key, and unifying link, for G8 ocean governance is energy shocks. The 1973/79 energy shock memory serves as the catalyst and link for most facets of ocean governance, ranging from the protection of the marine environment, oil tanker spills, and security from piracy, with only fisheries and maritime terrorism outside. These energy shocks from 1973/79 onwards, have occurred in various forms, including oil tanker spills, oil tanker high-jacks by pirates, and the 1987 fear of oil tankers being stopped in the Strait of Hormuz, disrupting vital oil supply routes.

The second cause is the failure of multilateral organization, specifically the limitations of the United Nations Convention on the Law of the Sea (UNCLOS), and the International Maritime Organization (IMO), to govern all aspects of the oceans

effectively. This situation has led to the emergence of the G8 as a global maritime environmental and security governor in particular. There is still no UN agency for counter-terrorism, which has allowed the G8 to move in as a primary actor in this capacity, and UNCLOS has not yet been accepted by the United States.

The third cause is the predominant and equalizing oceanic capabilities of the G8 member states. The G8, adding Russia from 1991 onward, increasingly contained the most capable and important countries necessary for the improvement and adaptation of ocean governance (Boyce 2009).

The fourth cause is controlled, constricted leaders participation. This refers to the advantages of a small group that efficiently arrives at, and monitors collective agreement, flexibly assembles the right members and participants for the task at hand, and directly engages the comprehensive, authoritative ambitions of the leaders themselves. This arrangement has played a key role in the success of the G8 in maritime affairs (Boyce 2009).

An Overview of G8 Oceans Performance

In the overall assessment of leading analysts, the G8's record appears to be largely positive. The few performance scores compiled regarding G8 performance on ocean governance display an increasing trend of effectiveness through 2000 to 2004. At the 2000, Okinawa summit, the G8 received a C grade on maritime and ocean issues. Later, at the 2003 Evian summit, the G8 increased its performance to a B+ grade on maritime and ocean issues. At the 2004, Sea Island summit, the G8 received an A+ grade for its performance on transportation security, which dealt with maritime issues (G8 Research Group, 2007).

Domestic Political Management

G8 oceans governance has done nothing to assist members with their domestic political management. There have been no G8 countries that have referenced the oceans in a G8 context in their national policy addresses. Both the United States and Canada, for example, have mentioned the oceans in their national policy addresses on a number of occasions, which highlights the importance of this issue area for these respective countries.

The United States made reference to the oceans in its State of the Union addresses in 1984, 1989, and 2002. In the first two instances, the oceans were mentioned in regards to territorial jurisdictional claims in regards to the UNCLOS. In 2002, the oceans were raised in the context of maritime security.

Canada has consistently mentioned the oceans in its Speech from the Throne. Since 1980, the country has only failed to mention the oceans three times, in 1988, 1991, and 2002. Canada has raised the oceans in a number of contexts, ranging from territorial rights under UNCLOS, to the protection of fisheries and the marine environment, to maritime security.

Deliberation

The G8 leaders first deliberated on ocean governance in 1980, again in 1982, and regularly from 1985 to 2009 (Appendix A). Oceans appeared in a total of twenty-three of thirty-six, or sixty-four per cent of the G7/8 summits that have occurred to 2009. Then deliberations expanded from maritime security to economic issues to environmental ones.

In response to the waves of Indochinese and Cuban boat people in the late 1970s and early 1980s, the G8 leaders first deliberated about the oceans in 1980, doing so in a maritime security and humanitarian context. They stated, “The Heads of State and Government are deeply concerned at the plight of the ever-increasing number of refugees throughout the world. Hundreds of thousands have already left the Indochinese peninsula and Cuba, many of them taking the risk of fleeing across the open seas.”

At the 1982 Versailles summit, oceans issues were first mentioned in an economic context. The G8 leaders stated, “Oceanographic exploration will allow us to discover and extract deposits of heretofore unknown natural resources, energy, and minerals” (G8 1982). This was the only mention of anything ocean-related that year. This G8 deliberation on oceanic resources can be traced to the 1979 energy shock. This event forced countries to look to new areas for potential resources to reduce their vulnerability to insecure Middle Eastern oil from non-state actors in revolutionary Iran. Following 1982, there was a three-year period of inactivity concerning ocean deliberation.

Ocean governance re-emerged at the 1985 Bonn summit. This was the first time the G8 addressed the oceans from an environmental point of view. 1985 was also the first year that the communiqué had an entire section devoted specifically to the environment, in which ocean governance was mentioned in a list among other environmental issues. Yet, no specific plans were made to mitigate the environmental degradation of the oceans. There was only a general statement that, “The protection of soils, fresh water and the sea, in particular regional seas, must be strengthened.”

1985 was followed by an increasing period of sustained G8 ocean deliberation. At the 1986 Tokyo summit, the G8 made its first statement on maritime security. The G8 leaders urged all likeminded countries to work with them in such international fora as the IMO, a specialized agency of the United Nations, to tackle maritime pollution.

The 1987 Venice Summit continued the higher level of deliberation, now entering into the political-security sphere. G8 leaders underlined their responsibility to encourage efforts to tackle environmental problems of worldwide impact like “water pollution,” and the importance of maritime security in combating international terrorism. The G8 also made a statement on ocean governance in the context of the Iran-Iraq War, maintaining that the, “the principle of freedom of navigation in the Gulf is of paramount importance for us and for others, and must be upheld.” Here again the issue of energy shocks arose as a catalyst for G8 deliberation on the oceans. The 1987 fear of oil tankers being stopped in the Strait of Hormuz, a primary oil supply route, was enough to invoke G8 action on the matter. Today, approximately forty per cent of the world’s seaborne oil shipments travel through this strait, making it one of the world’s most strategically important choke points (U.S Energy Administration 2009).

The 1988-1992 period saw a significant increase in deliberation on oceans, most notably at the 1990 Houston and 1991 London summits. Deliberation at these two summits was greater than it had been before and would not be surpassed until 2000. 1990 saw a rise both in the volume and scope of the discussion of oceans. There was more talk

in relation to the negative impact of human activity in terms of pollution of the marine environment and unregulated fishing practices. The G8 leaders for the first time highlighted the importance of regional fisheries organizations in mitigating these threats. Likewise, 1991 saw continued concern from G8 leaders regarding maritime pollution caused by human activity, the increasing problem of over-fishing, and the need to work through regional fisheries organizations to achieve goals.

The period from 1992-1999 saw a decreased amount of deliberation in relation to the 1987-1991 period. However, it was still higher than pre-1985 levels, and contained spikes in 1995 and 1997. The 1992 Munich summit had a fairly high amount of deliberation on oceans before it declined in subsequent years. At this summit, the G8 leaders focused on the preservation of marine resources, and urged countries to convene as soon as possible the international conference on straddling fish stocks and highly migratory fish stocks. The 1993 Tokyo summit saw the G8 leaders again mention the need for a successful outcome to the UN conference on straddling and highly migratory fish stocks.

The 1994 summit had no deliberation on oceans, but the 1995 summit, held on Canada's Atlantic Coast, saw a significant spike in this regard. The leaders of the G8 called for the successful completion of the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. They also stated that at the next session of the Convention on Biological Diversity, they would push for consensus on how to deal with the problems of the world's oceans. This increase in deliberation, however, trailed off drastically in 1996. There was only a brief statement on the need for better resources to measure fish and water quality.

The 1997 Denver summit saw a spike back to 1995 levels. The G8 leaders stated that they "must strengthen their efforts to protect the world's oceans." The leaders highlighted key issues including sustainable fishing, shipping, marine pollution from land-based and offshore activities, and oil spill prevention and emergency response. In this capacity, they would also specifically work to enhance cooperation in monitoring the ecology of the Northern Pacific.

The high level of deliberation at the 1997 summit was followed by two years of inactivity. However, in 2000, deliberation increased rapidly, surpassing 1990 and 1991 levels. This summit saw the return of maritime security to the G8 leaders agenda, as they called for joint cooperation on the issue, to be carried out through the IMO. In addition, the leaders also deliberated on the environmental side. They welcomed IMO efforts to pursue practical reform of current international regimes on maritime pollution, in particular the 1992 Convention on Civil Liability for Oil Pollution Damage and the 1992 International Oil Pollution Compensation (IOPC) Convention with respect, inter alia, to better compensation.

The 2000 Okinawa summit was followed by a year of inactivity. In the wake of the 9/11 terrorist attacks on the United States, the 2002 Kananaskis summit saw a major increase in oceans deliberation, focusing entirely on maritime security. The G8 leaders pledged their support for the operation of the IMO and its amendment of the International Convention for the Safety of Life at Sea (SOLAS).

At the 2003 Evian summit, the G8 leaders reached their highest amount of oceans deliberation on record, due primarily to an energy shock. In November 2002, the sinking of the *Prestige* oil tanker off the Galician coast pushed the G8 into action. At this summit,

ocean governance was involved in two G8 action plans. The first, “Marine Environment and Tanker Safety: A G8 Action Plan,” outlined the importance of sustainable oceans and seas in regards to global development and poverty reduction. The G8 leaders committed to a wide range of ocean-related issues. These included the ratification, accession to, and implementation of the UNCLOS and the UN Fish Stocks Agreement, improving safety regimes for tankers, and strengthening the IMO. They also encouraged the adoption of certain maritime conventions, such as the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage and the 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea. Deliberation on oceans also appeared in the “Science and Technology for Sustainable Development: A G8 Action Plan,” aimed at building on existing work to produce reliable data products on the ocean environments.

The period from 2004 to 2008 saw a significant decline in oceans deliberation, where it was absent from the agenda in 2004, briefly mentioned in 2005, and received very little attention in 2006. At the 2007 and 2008 summits, deliberation remained low. The G8 leaders emphasized the importance of the IMO in combating GHG emissions and the need to improve maritime security.

At the 2009 L’Aquila summit, oceans deliberation rose to its second highest point on record. The G8 leaders discussed the increasing threat of piracy in and around the Horn of Africa and the African continent in general. They stressed the need for cooperation, highlighting the success of international counter-piracy patrolling missions, and the importance of working through the IMO to achieve these goals. The leaders also recognized “the critical role of maritime security for delivering international assistance, trade, development, and regional stability.”

At the 2010 Muskoka summit, oceans deliberation experienced a slight drop from its 2009 level. The G8 leaders focused specifically on maritime security, outlining the need for international cooperation to fight maritime piracy in and around the African continent, and its links to organized crime and terrorism. The G8 countries committed to improving the operational effectiveness and response time of states and regional organizations in maritime domain awareness and sovereignty protection.

Direction Setting

Facts

The first oceans-related fact cited in a G8 communiqué appeared in 1980, which concerned the need to assist the displaced Indochinese and Cuban boatpeople trying to flee the declining political situations in their respective countries. In 1982, the fact was oceanographic exploration for the purposes of harvesting ocean resources. In 1985, the economic focus switched to the environment, where for the first time, a fact became the need to protect and strengthen the seas. In 1986, the agenda switched to maritime security, where the fact was the need to use the expertise of the IMO in combating terrorism. In 1987, the need for increased environmental protection and maritime security remained constant until 1992, when the G8 leaders gave their support to the UN Conference on Straddling and Highly Migratory Fish Stocks, which they also did in 1993 and 1995. In 1996, the facts focused on better resource management for fish and water

quality. In 1997, the facts returned to protection of the ocean environment and strengthening maritime security through the IMO, which remained constant until 2003, when the fact became the support for the UNCLOS. From 2003 until 2010, the facts continued to be protection of the ocean environment and improving maritime security.

Causes

The approved causal mode was usually fairly explicit in the communiqués. In 1980, the cause was largely maritime security and humanitarian reasons. In 1982, the cause was technology, which allowed countries to harvest ocean resources that were previously unavailable due to technological constraints. Some, as in 1997, blamed human-activity for degrading the ocean environment, through oil spills and other harmful acts. Others, such as in 2002 and 2005 cited devastating terrorist attacks, such as 9/11, for the need to improve maritime security. In 2009 and 2010, rampant piracy off the African continent was the cause behind the G8 leaders call for improved maritime security in that particular region of the world.

Rectitude

Rectitude in the G8 communiqués reveals that the importance placed on the protection of the marine environment has stayed relatively constant since 1985. That year the G8 leaders stated that the protection of the oceans was something that “must be done.” By 2008, the G8 leaders were giving the issue the same emphasis, again claiming that strengthening the ocean environment remained something that “must be done.”

Rectitude in the communiqués regarding maritime security reveals that this issue has also remained constant, as an issue of primary importance. In 1986, G8 leaders stated that they “must defeat terrorism” through the enhancement of maritime security. In 2008, 2009, and 2010, the G8 continued to place high importance on enhancing maritime security to protect against large-scale terrorist attacks and rampant maritime piracy.

Responsibility

The G8’s attribution of responsibility went through a phase of more autonomous action from 1982 to 1990. After the 1990 Houston summit, the G8’s responsibilities were increasingly expressed in terms of actions taken through other maritime conservation regimes, such as the IMO. In 2003, the G8 leaders committed to act collectively in accordance with the UNCLOS. From 2004 onwards, there was another rise in autonomous responsibility. In 2009 and 2010, the G8 took the idea that it should take the global lead, alongside the UN, in combating the severe maritime piracy threat occurring around the African continent.

Decision Making

The G7/8 summit moved almost from the start in 1985 from deliberating about the ocean, and setting principled and normative directions for dealing with it, to making specific, measurable, future-oriented collective decisions, or commitments about how it should be addressed. Since its first ocean commitment in 1985, through to 2009, the G8 made ninety-four such commitments, for an annual average of roughly four commitments over

the twenty summits since 1985 that it has deliberated on the oceans. Its decisional performance peaked first at the US-hosted Houston Summit in 1990, again at the UK-hosted London Summit in 1991, and then at the Canadian-hosted Halifax Summit in 1995. It peaked at even higher levels at the Japanese-hosted Okinawa Summit in 2000, reached a climax at the French-hosted Evian Summit in 2003, and experienced a major spike in 2009, its second highest point on record. The 2003 and 2009 summits account for fifty-two per cent of all the ocean commitments the G7/8 has made.

These commitments have covered an ever-broadening range of component issues. Since 1980, the G7/8 agenda has expanded to include a wide array of oceanic issues ranging from the protection of marine biodiversity to the enhancement of maritime security. The greatest broadening, or bursts of decisional innovation, came at Italy's Venice Summit in 1987, France's Evian Summit in 2003, and the UK's Gleneagles Summit in 2005. In contrast, other summits, such as the Denver Summit in 1997, were primarily volume producers, generating numerous commitments but doing little to make commitments in new areas. Over these twenty years, the G7/8 has concentrated its ocean decision-making on the core issues of improving maritime security (29 commitments) and combating marine pollution (10). It has also given substantial attention to compliance with regional fisheries organizations (8), sustainable management of the marine environment (6) and maritime oils spills (6). In addition, the G8 has made commitments on nuclear proliferation at sea and the interception of naval vessels using international task forces. In more recent years, the G8 has begun to deliberate on maritime piracy due to its rapid rise in the Indian Ocean. In 2009 and 2010, the G8 made thirteen commitments in this regard.

Delivery

At present, there are only a few compliance reports that specifically analyze the G8's oceans governance compliance record. Yet, it is still possible to get an idea of the G8's oceans compliance record, by discussing those compliance cases that are closest to oceans issues, these being energy, the environment, and security issues such as terrorism.

There has long been good reason to believe that G7/8 members comply with their oceans commitments and do so in a timely fashion, within a year of the summit that made them. By way of background, the pioneering study of compliance with G7 summit decision, conducted by George von Furstenberg and Joseph Daniels (1991), examined the compliance record of G7 members on their energy commitments from 1975 to 1989. This study found that overall compliance was positive. Compliance with energy commitments, one of the areas most related to oceans due to the link with deep-sea fuel-based resources and oil tanker spills, scored very high.

Subsequently, Ella Kokotsis (1999) examined the compliance record of the United States and Canada – the G7's most and least powerful members, respectively – from 1988 to 1995 on commitments in the area of climate change and biodiversity, two other areas that are closely related to the oceans issue area. Kokatsis found that G7 member's compliance was generally positive, with a net score of +0.26 on a scale from +1 to -1. The United States produced less impressive results, with a compliance rate of only +0.11, while Canada did much better, with a compliance rate of +0.50, with climate change at +0.34 and biodiversity at -0.13 (G8 Research Group, 2010).

Since 1996 the G8 Research Group has conducted compliance assessments of a

selection of the G8's priority commitments. As with the Kokatsis study, these assessments assign a score of +1 if a country complies completely or almost completely with the commitment; 0 if a country partially complies or is a "work in progress"; and -1 if a country makes no effort to comply or if it does the opposite of what the commitment states.

From 1997 to 2006, the G8 Research Group found that the trend of strong environmental compliance continues, despite noticeable drops in 1997, 2001, and 2006. At the 2003 Evian summit, for example, the G8 experienced a net positive result on their marine environment commitments, achieving a compliance rate of +0.50.

In the case of G8 security commitments, another area that is directly related to oceans governance, the G8 has preformed extremely well in terms of compliance. In the case of terrorism, for instance, at the 2003 Evian summit, all the G8 countries fully complied with their commitments involving maritime security, achieving a compliance rate of +1. At the 2009 L'Aquila summit, the G8 countries again achieved full compliance with a score of +1 on their commitments made in regards to maritime piracy – one of the only issues at the summit to achieve full compliance that year.

The Muskoka Accountability Report (2010) also lends support to the belief that the G8 has had a positive compliance record on maritime security matters, particularly its commitments regarding piracy. The report states that the G8 members have provided more than \$15 million to two multi-donor trust funds, created to address piracy off the coast of Somalia and in the Gulf of Aden. The report further states that Italy is currently working to strengthen the vessel traffic management system in Yemen, which aims to address other high priority maritime threats like illegal fishing, narcotics and arms trafficking, illegal migration, trafficking in person and other criminal activity. The US is working to enhance maritime domain awareness through the provision of equipment, spare parts and training to West, Central, South, and East African countries. Additionally, the African Partnership Station (APS), an international initiative developed by the US, helps build skills, expertise, and professionalism of African maritime forces. As well, Japan has contributed \$13.6 million to the IMO Djibouti Code Trust Fund (Multi-donor trust fund – Japan initiated) (Muskoka Accountability Report, 2010).

Development of Ocean Governance

The G8 has been largely inactive regarding the development of ocean governance. Instead, it has tended to work through existing global institutions, primarily the IMO, to coordinate its responses to oceans issues.

There was no mention of outside international institutions with regards to oceans in the communiqués until the 1986 Tokyo summit. Here the UN was mentioned in the form of the IMO, to draw on the latter's expertise in dealing with maritime terrorism. 1987 saw more acknowledgement of the IMO and the United Nations Security Council (UNSC) in its dealing with the free flow of oil and traffic in the Straits of Hormuz during the Iran-Iraq War. In 1989, the G7 leaders called for "relevant bodies of the United Nations to prepare a report on the state of the world's oceans." They further asked the IMO to help put forward proposals for assistance with the matter.

At the 1992 Munich summit, the G7 urged other countries to join them by ensuring that the international conference on straddling fish stocks and highly migratory fish stocks in the oceans would be convened as soon as possible. In 1993 and 1994, there

were more nods to the successful outcome of the UN conference on straddling and highly migratory fish stocks. In 1994, there was also the push for consensus at the next United Nations Commission on Sustainable Development (CSD).

The 2000 Okinawa Summit saw a diversification of the relevant international institutions. The G8 leaders stressed the need to reform the 1992 Convention on Civil Liability for Oil Pollution Damage and the 1992 International Oil Pollution Compensation (IOPC) Convention. At Kananaskis in 2002, the G8 issued more support to the IMO, along with the International Convention for the Safety of Life at Sea (SOLAS).

The 2003 Evian Summit is the most ambitious case of G8 development of global ocean governance to 2009. This summit produced the “Maritime Environment and Tanker Safety: A G8 Action Plan.” The G8 decided at the Evian summit to create an Action Plan between the G8 and other countries with significant concerns about the marine environment. The leaders also spoke of their commitment to other actors, including the 1995 Global Programme of Action for the Protection of the Marine Environment, the 1995 Code of Conduct for Responsible Fisheries of the FAO, the IMO, the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage, and the 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea.

At the 2006 St. Petersburg Summit, the focus shifted back to security, as the leaders made a commitment to fully implement the International Ships and Ports Facility Security Code to improve international maritime security. At Heiligendamm in 2007, the G8 reiterated its continued support of the IMO. In 2008, at Hokkaido, the leaders again recognized the importance of the IMO, but also the need to follow the distinct processes under the UN Framework Convention on Climate Change (UNFCCC).

At the 2009 L’Aquila summit, the leaders stated that they will use their participation in the ICAO, IMO, and UNFCCC processes to reach an agreed outcome for the post-2012 period to rapidly advance towards accelerated emission reductions for the international aviation and maritime sectors. In addition, the G8 also agreed to continue to work with the Contact Group on Piracy off the Coast of Somalia, the Djibouti Code of Conduct facilitated by the IMO, and the International Contact Group for Somalia.

At the 2010 Muskoka summit, the G8 leaders outlined the importance of working through the UN to effectively combat maritime piracy, by committing to support UN Security Council Resolution 1918 in this regard.

Critical Cases

1987 Venice

At the 1987 Venice summit, the G8 ocean governance agenda expanded from economic and environmental issues to maritime security. That year, the G8 leaders proclaimed that they would continue their efforts to improve the safety of travelers and welcomed improvements in maritime security to be carried out through the IMO. In the context of the Iran-Iraq War, this summit also saw the G8 make a statement in support of the UNSC to reaffirm the principle of navigation in the Persian Gulf. This G8 activity on the oceans issue area was primarily a result of the energy shocks associated with the fear of oil

tankers being stopped in the Strait of Hormuz, a vital global oil supply route (U.S. Energy Administration 2009).

2003 Evian

The 2003 summit was the most successful and ambitious of all the G8 summits concerning ocean governance. It witnessed the G8 agree on two action plans that dealt with the marine environment and tanker safety. The first of these action plans promoted a range of measures to preserve and manage fisheries and to protect the oceans. The second plan advocated actions to quickly phase out single hulled tankers, measures to prevent them transporting heavy-grade oil, and guidelines on ports refuge (Bayne 2005). The G8 also committed to the ratification, or acceding to, and implementation of the UNCLOS at the Evian summit. The 2003 increase in G8 oceans activity can be primarily attributed to the devastation caused to the marine environment from the sinking of the *Prestige* oil tanker in November 2002. This major oil spill created shock throughout the world, which required quick and effective international collaboration to be properly dealt with.

2009 L'Aquila

The 2009 L'Aquila Summit was a great success for G8 ocean governance. This summit saw the highest amount of deliberation on maritime issues since 2003. Maritime security received the most attention, due to the increasing threat of maritime piracy off the African continent to international trade and security. This pushed the G8 leaders to commit to increasing international counter-piracy patrolling missions in and around Somali waters, achieving full compliance on these commitments – one of the only issues at the summit to achieve this feat.

Causes of G8 Ocean Governance Performance

The Concert Equality Model of G8 governance most effectively explains the G8's record on ocean governance. This model is based on the shock-activated non-state vulnerability faced equally by states, the failure of other major international organizations to deal with the problems of ocean governance, the equalizing and predominant capabilities of all G8 nations giving incentive for concerted action, and the constricted nature of the G8 process. In the present cases, the causes which stand out as salient are equalizing shock-activated vulnerability, multilateral organizational failure, predominant and equalizing capabilities of the G8 countries, and controlled constricted participation, characterized by the structure of the G8 and its approach to global governance (Fратиanni et al, 2005).

Equalizing Shock-Activated Vulnerability

There are two ways in which G8 nations experience the equalizing effects of oceans that severely threaten national interests and values. These are chronic, compounding stress and sudden severe, surprising shocks. In regards to the first, the global nature of the ocean environment has equalizing effects, because all of the G8 nations are harmed when the marine environment is impacted from long distance pollution, over-fishing, and the loss of global commons, such as coral reefs and marine biodiversity. Each G8 country

thus has an equal stake in protecting the oceans if it wishes to avoid becoming increasingly vulnerable to the negative effects of environmental degradation to this global public good.

On the critical dimension of sea level rise, for example, the equalization of vulnerability arises from the fact that the G8's most powerful members – the US and Japan – have both their political and economic capitals on the sea coast, while the weakest members of Canada and Russia do not (Boyce 2009). Sea-level rise reduces land territory and hence presents a major threat to a country's national interest, endangering high value cities and coastal populations. More than half of the world's population lives within sixty kilometres of the sea, and three-quarters of all the planet's large cities are located on the coast. The G8 countries (and the EU) possess thirty-six per cent of the world's coastline. Canada ranks first in coastlines at sixteen per cent to the United States at 3 per cent. Furthermore, the G8's increasing inclusiveness of allowing other countries with large coastlines, such as China to attend the annual summits, has served to increase the G8's vulnerability to sea-level rise.

Sudden and severe shocks are also an important driving force behind G8 ocean governance. These can include extreme weather events such as hurricanes, typhoons, and tsunamis, or local, televised shocks such as oil spills, as in the case of the Exxon Valdez disaster, in March 1989, or, the sinking of the *Prestige*, off the coast of Spain in November 2002. In the case of the latter, for example, this incident led to a G8 action plan on tanker safety due to the destruction and death to marine life and resources.

Other shocks that explain G8 performance are terrorist attacks, which have become more prevalent and deadly worldwide since 2002. For instance, the Berlin Discothèque bombing in 1986, which killed seventy-nine American servicemen, the 9/11 attacks on the US, which resulted in over three thousand civilian deaths, and the rapid increase in maritime piracy in the Indian Ocean, have all had a significant impact on G8 deliberation on maritime security issues (Bayne 2005).

Multilateral Organization Failure

A second cause of G8 ocean governance is the failure of multilateral organizations, such as the UN, and most notably the IMO and UNSC, to effectively deal with oceanic problems. This situation has led to the emergence of the G8 as a global maritime security governor, largely due to the fact that the UN has no organizations dedicated to these two tasks. At the present time, there is no UN agency for counter-terrorism, for example, which has allowed the G8 to move in as a primary actor in this capacity. The G8's list of commitments on ocean governance since it began in 1980 supports this interpretation of it as a leader in maritime security as well. It has concentrated its ocean decision-making on improving maritime security, which has included commitments on nuclear proliferation at sea, the interception of naval vessels with international task forces, and the rise of maritime piracy in and around the Indian Ocean.

The neo-vulnerability G8 countries face from non-state actors will also give the G8 continued relevance as a maritime security governor. In this capacity, the UNCLOS is severely limited in its ability to enforce maritime security on the high seas, as ships are the subject to the exclusive jurisdiction of the flag state in international waters. According to Raman Prem Suthan, Vice Chief of Naval Staff for the Indian Navy, maritime piracy is currently the largest threat to international maritime trade, particularly in the Indian

Ocean (Suthan 2008). In 2008 alone, there were a total of forty-two successful highjacking in the region, in which fourteen foreign ships and their crews of over two hundred were being held. In particular, the high-jacking by pirates in the Gulf of Aden of the Saudi Arabian-owned supertanker, *Sirius Star*, in November 2008, carrying US\$100 million worth of oil cargo, was the largest ever instance of pirate high-jacking. Within a matter of hours the incident made the value of oil increase by one dollar, which displays the energy shock link regarding tanker spills and the fear surrounding the events in 1987 regarding the Strait of Hormuz (The Times Online 2008).

The growing threat of maritime piracy provides the G8 with the opportunity to use its expertise and success at establishing maritime security commitments between states in this critical policy area. At the 2009 L'Aquila summit, the G8 leaders did just that, by dedicating a significant portion of their communiqué to maritime security outlined in a section entitled, "Piracy and Maritime Security." At the summit, the G8 leaders committed to carry out counter-piracy operations through comprehensive international undertakings to build and promote maritime security in and around the Horn of Africa and the African continent more broadly. The G8 committed to international counter-piracy patrolling missions, and aiding the government of Somalia in boosting its maritime security. This G8 action was a reflection of the international community's fear of the disruption of key oil supply routes, particularly in the Strait of Malacca.

Predominant and Equalizing Capabilities

The third cause of G8 ocean governance is the predominant and equalizing ocean governance capabilities of the G8 member states. The G8 is an important forum for the discussion of ocean governance because its members contain, and increasingly so, the most important and capable countries to tackle the challenges facing the planet's oceans. In regards to the protection of the ocean environment, the G8 countries (and the EU) contain fifty-seven per cent of the world's industrial CO₂ emissions and fifty-three per cent of its primary energy production. This large share of critical environmental resources and emissions make concerted effort on the part of the G8 nations far outweigh the benefits of unilateral or bilateral action on ocean governance. Collective action is required because even the most capable country is not able to solve such problems on its own, as evidenced by how difficult it was for the US, the world's greatest power, acting alone, to effectively respond to the deadly oil drilling accident in the Gulf of Mexico on April 20, 2010.

The membership of the G8 reflects the configuration of capabilities required for effective ocean governance. The G8 countries possess some of the world's largest navies, making them critical players in the strategy for effective global ocean governance. In terms of personnel, the US has the largest navy in the world, while Russia and France have the third and ninth largest navies, respectively (Boyce 2009). The G8 also possesses a significant portion of the world's merchant marine fleets. Russia and Japan, rank ninth and sixteenth in the world, respectively.

The G8's increasing inclusiveness has also had a positive effect on its ocean related capabilities, by bringing in military powers and top polluters, and therefore its effectiveness to operate as an institution of ocean governance. The inclusion of Russia in G8 summitry from 1998 onwards, gave the G8 a naval power with the second highest industrial CO₂ emissions of the G8 countries (Boyce 2009). In addition, the inclusion of

a number of emerging naval powers to the G8 club since the Gleneagles summit in 2005, such as India, and most importantly China, a country with the second largest navy and the most CO2 emissions in the world, has only served to increase the G8's collective maritime influence (Boyce 2009).

Controlled Constricted Participation

The fourth cause is controlled, constricted leaders participation. This refers to the advantages of a small group that efficiently arrives at, monitors collective agreement, flexibly assembles the right members and participants for the task at hand, and directly engages the comprehensive, authoritative ambitions of the leaders themselves. For instance, there have been several G8 leaders, such as US presidents Gerald Ford and Jimmy Carter, who have served in the Navy, which may have served to bolster the importance of maritime issues in the G8 summit process during their time in office.

The G8 has been effective in times of multilateral institutional failure because, unlike the UN, the G8 is unhampered by weak commitments and free riding due to broad consensus – a problem experienced with the UN approach to maritime security. The G8 has managed to maintain a small group of the most important countries for effective results regarding ocean governance, and has proven more capable in constricting maritime piracy off the African coast than the UN, which is crippled by the limitations in its legal framework for combating such threats. Throughout the different stages of G8 ocean governance, the leaders were able to act effectively to supplement the UNCLOS process (Boyce 2009).

Conclusion

The conclusions made in this paper regarding the G8's ocean governance performance should be treated tentatively, given that they are based on only two oceans commitments assessed for compliance thus far, relative to the ninety-four that have been made. Furthermore, these conclusions are based primarily on those compliance cases that are closest to oceans issues, these being energy, the environment, and security issues such as terrorism. However, preliminary evidence suggests that G8 ocean governance has been worth doing, even if the results have varied from year to year, from issue to issue, and from country to country. Further work will be done to come to more confident conclusions about the G8's comprehensive oceans record and what can be done to improve compliance with the oceans commitments the G8 summit makes.

References

- Bayne, Nicholas (2005). *Staying Together: The G8 Summit Confronts the 21st Century*. (Aldershot: Ashgate).
- Bayne, Nicholas (1997). "Changing Patterns at the G7 Summit." www.g8.utoronto.ca/governance/gov1/gov1eco.htm (June 2010).
- Bayne, Nicholas (2000). *Hanging in There: The G7 and G8 Summit in Maturity and Renewal*. (Aldershot: Ashgate).
- Bayne, Nicholas (2005). "Reconciliation: Evian," in *Staying Together: The G8 Summit Confronts the 21st Century*. (Aldershot: Ashgate).

- Boyce, Madeline (2009). "G8 Climate Governance, 1975-2009." G8 Research Group, Toronto. www.g8.utoronto.ca/evaluations/climate-boyce-090708.pdf (June 2010).
- Byers, Michael (2010). "Arctic Diplomacy Requires Building a Bigger Igloo." byers.typepad.com/arctic/2010/02/arctic-diplomacy-requires-building-a-bigger-igloo.html (February 2010).
- Cicin-Sain, B. and Robert W. Knecht (2000). *The Future of U.S. Ocean Policy: Choices for the New Century*. (Washington, D.C.: Island Press).
- China View (2009). "Chinese navy urged to go from coastal waters to oceans." news.xinhuanet.com/english/2009-03/07/content_10963412.htm (February 2010)
- Churchill, R.R. and A.V. Lowe (1999). *The Law of the Sea*, 3rd ed. (Manchester: Manchester University Press).
- Fратиани, Michele, John Kirton, and Paolo Savona (2007). *Corporate, Public and Global Governance: The G8 Contribution*. (Aldershot: Ashgate).
- Fратиани, Michelle, John Kirton, Alan Rugman, and Paolo Savona (2005). *New Perspectives on Global Governance: Why America Needs the G8*. (Aldershot: Ashgate).
- Griffiths, Franklyn (1987), *Politics of the Northwest Passage*. (Kingston: McGill-Queen's University Press).
- Government of Canada. *Over-fishing and International Fisheries Governance*. www.dfompo.gc.ca/overfishing-surpeche/links_e.htm (September 2008)
- Group of Eight (2010). *Muskoka Accountability Report: Assessing Action and Results Against Development-related Commitments*.
- Hajnal, Peter (2007). *The G8 System and the G20: Evolution, Role and Documentation*. (Aldershot: Ashgate).
- Haward, Marcus (2006). "Coordination and Capacity in Ocean Governance" eprints.utas.edu.au/464/1/Haward_fulbright.pdf (December 2008).
- Kirton, John (1995-99). "Sustainable Development at the Houston Seven Power Summit." www.g8.utoronto.ca/scholar/kirton199001/sdint.htm (June 2010).
- Kirton, John et al. (2001). "Discussing the Achievements of the 1999 Cologne Summit," in *Guiding Global Order: G8 Governance in the Twenty-First Century*. (Aldershot: Ashgate)
- Kirton, John and Ella Kokotsis (2003). "Impressions of the G8 Evian Summit." www.g8.utoronto.ca/evaluations/2003evian/assess_kirton_kokotsis.html (June 2010).
- Kirton, John (2003), "Embedded Ecologism and Institutional Inequality: Linking Trade, Environment and Social Cohesion in the G8." Paper prepared for a panel on *New Directions in Global Trade Governance: Competition, Consensus and Coherence at the annual convention of the International Studies Association, Chicago, February 20-24*. www.g8.utoronto.ca/scholar/kirton20010217/kirton20010217.pdf (June 2010).
- Kirton, John (2000), "United States Foreign Policy and the G8 Summit." Paper presented at a lecture at the Faculty of Law, Chuo University, Japan, July 6. www.g8.utoronto.ca/scholar/kirton20004 (June 2010).
- Kirton, John and Ella Kokotsis (2004), "The G8 from Genoa to Kananaskis and Beyond: Performance, Prospects, and Potential." www.g8.utoronto.ca/conferences/2002/calgary/prospects_kirton.pdf (June 2010).

- Kirton, John (2007). *Global Governance: G8 and the International Institutions*. (Moscow: Logos).
- Kirton, John (2007). *Canadian Foreign Policy in a Changing World*. (Canada: Thomson & Nelson).
- Kokatsis, Ella and Joseph Daniels (1999). "G8 Summits and Compliance." In Michael Hodges, John Kirton and Joseph Daniels, eds., *The G8's Role in the New Millennium*. (Aldershot: Ashgate).
- Larson, David L. (1994). *Security Issues and the Law of the Sea*. (New York: University of American Press).
- LeGresley, Eric (1993). *United Nations Convention on the Law of the Sea*. (Ottawa: Library of Parliament, Research Branch).
- Leitner, Peter M. (1996). *Reforming the Law of the Sea Treaty: Opportunities Missed, Precedents Set, and U.S. Sovereignty Threatened*. (Lanham: University Press of America, Inc.).
- Lucyk, Christine and John Kirton (2001). "Safeguarding Environmental Values and Social Cohesion" in *New Directions in Global Political Governance: The G8 and International Order in the Twenty-First Century*. (Aldershot: Ashgate).
- Joyner, Christopher (2005). *International Law in the 21st Century: Rules for Global Governance*. (Oxford: Rowman & LittleField Publishers, Inc.).
- Juda, Lawrence (1996). *International Law and Ocean Use Management: The Evolution of Ocean Governance*. (New York: Routledge).
- Marr, Simon (2003). *The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law*. (The Hague: Martinus Nijhoff Publishers).
- Oude Elferink, Alex G. (2005). *Stability and Change in the Law of the Sea: The Role of the LOS Convention*. (The Hague: Martinus Nijhoff Publishers).
- Scheiber, Harry N. (2000). *The Law of the Sea: The Common Heritage and Emerging Challenges*. (The Hague: Martinus Nijhoff Publishers).
- Science Daily (2008). "Climate Change Alters Ocean Chemistry."
www.sciencedaily.com/releases/2008/12/081211141832.htm (December 2008).
- Smith, Susan (2007). "Why the G8 Summit Was a Failure: The U.S.'s Undercutting of International Environmental Plans."
writ.news.findlaw.com/commentary/20070626_smith.html (September 2008).
- Suthan, Raman Prem (2008). "Paper on Evolution of Ocean Governance"
www.marina.difesa.it/rss/2008/pagine/session/3_session/india/India.pdf (December 2008).
- Independent (2005). "G8 Summit: ... But U.S. Stance on Climate Change Puts Deal in Doubt." findarticles.com/p/articles/mi_qn4158/is_/ai_n14688179 (September 2008).
- Times Online (2008). "American Commandos Get UN Go-Ahead to Hunt Down Somali Pirates," September 18.
www.timesonline.co.uk/tol/news/world/africa/article5361682.ece (December 2008).
- Toronto Star (2008). "Beijing's Anti-piracy Bid a First for Its Navy," December 20.
www.thestar.com/News/World/article/556656 (December 2008).
- The White House (2007). "President Bush's Statement on advancing U.S. interests in the World Oceans," News release, May 15.
www.whitehouse.gov/news/releases/2007/05/20070515-2.html (July 2007).

- United Nations (2007a). “The United Nations Convention on the Law of the Sea: A Historical Perspective.”
www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm (May 2007).
- U.S Energy Administration (2009) “World Oil Transit Checkpoints.”
www.eia.doe.gov/cabs/World_Oil_Transit_Chokepoints/Hormuz.html (February 2010).

Appendix A: G8 Oceans Governance Performance, 1975-2009

Year	Domestic Political Management	Deliberation				Decisional	Delivery	Development of Global Governance
		Total Ocean Words	% Of Overall Words	Total Documents with Ocean	% Of Overall Documents			
1975	0	0	0	0	0	0	N/A	0
1976	0	0	0	0	0	0	N/A	0
1977	0	0	0	0	0	0	N/A	0
1978	0	0	0	0	0	0	N/A	0
1979	0	0	0	0	0	0	N/A	0
1980	0	2	0.05	1	20	0	N/A	0
1981	0	0	0	0	0	0	N/A	0
1982	0	2	0.01	1	50	0	N/A	0
1983	0	0	0	0	0	0	N/A	0
1984	0	0	0	0	0	0	N/A	0
1985	0	3	0.09	1	50	1	N/A	0
1986	0	3	0.08	1	25	1	N/A	0
1987	0	11	0.20	3	42.8	2	N/A	0
1988	0	3	0.06	2	66.6	1	N/A	0
1989	0	18	0.20	1	9.09	3	N/A	0
1990	0	28	0.30	1	25	5	N/A	0
1991	0	27	0.30	1	20	5	N/A	0
1992	0	14	0.10	1	25	3	N/A	0
1993	0	7	0.20	1	33.3	1	N/A	0
1994	0	0	0	0	0	0	N/A	0
1995	0	21	0.20	1	33.3	1	N/A	0
1996	0	2	0.01	1	20	0	N/A	0
1997	0	21	0.10	1	25	5	N/A	0
1998	0	0	0	0	0	0	N/A	0
1999	0	0	0	0	0	0	N/A	0
2000	0	39	0.20	1	20	5	N/A	0
2001	0	0	0	0	0	0	N/A	0
2002	0	27	0.20	1	14.3	3	N/A	0
2003	0	182	1	3	20	32	0.75	2
2004	0	0	0	0	0	0	N/A	0
2005	0	8	0.03	2	11.8	0	N/A	0
2006	0	13	0.04	3	20	2	N/A	0
2007	0	3	0.01	1	8.3	1	N/A	0
2008	0	9	0.05	3	42.9	2	N/A	0
2009	0	52	0.30	2	16.7	13	1	0
2010	0	39	N/A	1	N/A	8	N/A	0
Total	0	455	3.73	33	599.09	94	1.75	2
Average	0	13	0.11	0.94	17.12	2.6	0.875	N/A

Notes: N/A=Not Available; TBC=to be calculated.

a. Grades up to and including 2005 are given by Nicholas Bayne; from 2006 on are given by John Kirton, generated according to a different framework and method.

b. Domestic Political Management (National Policy Addresses): % Mem is the percentage of measured G8 countries that referred to the G7/8 at least once that year in their national policy addresses. Ave # refs = the average number of references for the measured countries.

c. Directional: number of references in the communiqué's chapeau or chair's summary to the G8's core values of democracy, social advance and individual liberty.

d. Delivery: Compliance scores from 1990 to 1995 measure compliance with commitments selected by Ella Kokotsis. Compliance scores from 1996 to 2008 measure compliance with G8 Research Group's selected commitments.

e. Development of Global Governance: Bodies is the number of new G7/8-countries institutions created at the ministerial and official level at or by the summit, or during the hosting year, at least in the form of having one meeting take place. The first number represents ministerials created. The second number represents official level bodies created.

g. Score is based on the 2009 L'Aquila Interim Compliance Report

The chart accounts for all official documents. Only documents with an English version were included in the calculations.

*"Total Oceans Words" refers to the number of oceans subjects within the official documents for the year specified. The words are calculated by paragraph because the paragraph is the unit of analysis. This number excludes document titles but includes subtitles.

*“% of Overall Words” refers to “Total Oceans Words” as a percentage of the total number of words contained in all official documents for the year specified.

*“Total Documents with Oceans” refers to the number of documents that contain oceans subjects but the document itself is not dedicated to oceans.

*“% of Overall Documents” refers to the “Total Documents with Oceans” as a percentage of the total number of official documents contained in the year specified.

*“Total Dedicated Oceans Documents” refers to the number of documents that contain an oceans subject in its title.

*“% of Overall Sections” refers to “Total Dedicated Oceans Documents” as a percentage of the total number of sections within the official documents for the year specified.

*“Commits” refers to total number of oceans commitments.

*“Comp” refers to compliance scores for ocean commitments.

Appendix B: G8 Oceans Deliberation, 1975-2009

The following is a catalogue of passages dealing with “oceans” in the written documents issued by G8 Leaders’ at their annual summits from 1975 to 2008. Key subjects are highlighted below. Subjects that are not included here have also been highlighted. These subjects have been captured in other issue areas to which they are better suited.

List of Subjects Included:

Marine,
Maritime,
Fisheries,
Seas,
Seabed,
Boat People
Deep-Seabed Mining,
Oceans,
Navigation,
Coral,
UNCLOS,
UN Summits,
Land base sources or marine pollution,
Tankers,
Saltwater,
International Maritime Organization,
Sea Ice,
Oceanographic Exploration,
Maritime Security,
Piracy
Oil Spills,
Marine Pollution

List of Subjects Excluded:

Lakes,
Freshwater

Coding Rules:

The unit analysis is the paragraph/sentence.

Need a direct reference to **oceans** or a cognate term.

Cognate or extended terms can be used without reference to “**oceans**” if they have previously been directly associated together in Summit communiqué history.

1975 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1976 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1977 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1978 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1979 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1980 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

Statement on Refugees (1 paragraph, 2 Sentence, 0 Priority Placement)

The Heads of State and Government are deeply concerned at the plight of the ever-increasing number of refugees throughout the world. Hundreds of thousands have already left the Indochinese peninsula and Cuba, many of them taking the risk of fleeing across the **open seas**.

1981 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1982 (1 Paragraphs, 1 Sentences, 0 Priority Placement)

Technology, Employment and Growth: Report by Mr. Francois Mitterrand, President of the French Republic at the Summit of the Industrialized Countries: Mankind's Vital Spirit Propels It towards New Fields of Development. (1 Sentence)

Lastly, new spheres are opening up to our intelligence. I shall limit myself to only a few examples here: **Oceanographic exploration** will allow us to discover and extract deposits of heretofore unknown natural resources, energy and minerals.

1983 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1984 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1985 (1 Paragraph, 4 Sentences, 0 Priority Placement)

Environmental Policies (1 Paragraph, 4 Sentences, 0 Priority Placement)

We shall also address other concerns such as climatic change, the protection of the ozone layer and the management of toxic chemicals and hazardous wastes. The protection of soils, fresh water and the **sea**, in particular of **regional seas**, must be strengthened.

1986 (1 Paragraph, 3 Sentences, 0 Priority Placement)

Statement on International Terrorism (1 Paragraph, 3 Sentences, 0 Priority Placement)

Recognizing that the continuing fight against terrorism is a task, which the international community as a whole has to undertake, we pledge ourselves to make maximum efforts to fight against that scourge. Terrorism must be fought effectively through determined, tenacious, discreet and patient action combining national measures with international cooperation. Therefore, we urge all likeminded nations to collaborate with us, particularly in such international fora as the United Nations, the International Civil Aviation Organization and the **International Maritime Organization**, drawing on their expertise to improve and extend countermeasures against terrorism and those who sponsor or support it.

1987 (3 Paragraph, 14 Sentences, 0 Priority Placement)

Venezia Economic Declaration: Environment (1 Paragraph, 2 Sentences, 0 Priority Placement)

We underline our own responsibility to encourage efforts to tackle effectively environmental problems of worldwide impact such as stratospheric ozone depletion, climate change, acid rains, endangered species, hazardous substances, air and **water pollution**, and destruction of tropical forests. We also intend to examine further environmental issues such as stringent environmental standards as an incentive for innovation and for the development of clean, cost-effective and low-resource technology; as well as promotion of international trade in low-pollution products, low-polluting industrial plants and other environmental protection technologies.

Statement on Terrorism (1 Paragraph, 4 Sentences, 0 Priority Placement)

Will continue our efforts to improve the safety of travelers. We welcome improvements in airport and **maritime security**, and encourage the work of ICAO [International Civil Aviation Organization] and **IMO [International Maritime Organization]** in this regard. Each of us will continue to monitor closely the activities of airlines, which raise security problems. The Heads of State or Government have decided on measures, annexed to this statement, to make the 1978 Bonn Declaration more effective in dealing with all forms of terrorism affecting civil aviation.

Statement on Iraq-Iran War and Freedom of Navigation in the Gulf (1 Paragraph, 8 Sentences, 0 Priority Placement)

We agree that new and concerted international efforts are urgently required to help bring the Iraq-Iran war to an end. We favor the earliest possible negotiated end to the war with the territorial integrity and independence of both Iraq and Iran intact. Both countries have suffered grievously from this long and tragic war. Neighboring countries are threatened with the possible spread of the conflict. We call once more upon both parties to negotiate

an immediate end of the war. We strongly support the mediation efforts of the United Nations Secretary-General and urge the adoption of just and effective measures by the UN Security Council. With these objectives in mind, we reaffirm that the **principle of freedom of navigation in the Gulf** is of paramount importance for us and for others, and must be upheld. The free flow of oil and other traffic through the Strait of Hormuz must continue unimpeded.

1988 (2 Paragraphs, 6 Sentences, 0 Priority Placement)

Environment (1 Paragraph, 5 Sentences, 0 Priority Placement)

Further action is needed. Global climate change, air, **sea** and fresh water pollution, acid rain, hazardous substances, deforestation, and endangered species require priority attention. It is, therefore, timely that negotiations on a protocol on emissions of nitrogen oxides within the framework of the Geneva Convention on Long-range Trans-boundary Air Pollution be pursued energetically. The efforts of the United Nations Environment Programme (UNEP) for an agreement on the trans-frontier shipment of hazardous wastes should also be encouraged as well as the establishment of an inter-governmental panel on global climate change under the auspices of UNEP and the World Meteorological Organization (WMO). We also recognize the potential impact of agriculture on the environment, whether negative through over-intensive use of resources or positive in preventing desertification. We welcome the Conference on the Changing Atmosphere to be held in Toronto next week.

Political Declaration: Terrorism (0 Paragraphs, 1 Sentence, 0 Priority Placement)

We welcome the adoption this year in Montreal and Rome of two international agreements on aviation and **maritime security** to enhance the safety of travelers.

1989 (3 Paragraphs, 12 Sentences, 0 Priority Placement)

Economic Declaration: Environment (3 Paragraphs, 12 Sentences)

There is growing awareness throughout the world of the necessity to preserve better the global ecological balance. This includes serious threats to the atmosphere, which could lead to future climate changes. We note with great concern the growing pollution of air, lakes, rivers, **oceans and seas**; acid rain, dangerous substances; and the rapid desertification and deforestation. Such environmental degradation endangers species and undermines the well-being of individuals and societies.

We condemn indiscriminate use of **oceans** as dumping grounds for polluting waste. There is a particular problem with the deterioration of **coastal waters**. To ensure the sustainable management of the **marine environment**, we recognize the importance of international cooperation in **preserving it and conserving the living resources of the sea**. We call for relevant bodies of the United Nations to prepare a report on the state of the world's **oceans**.

We express our concern that national, regional and global capabilities to contain and alleviate the consequences of **maritime oil spills** be improved. We urge all countries to make better use of the latest monitoring and clean-up technologies. We ask all countries to adhere to and implement fully the international conventions for the prevention of oil pollution of the **oceans**. We also ask the **International Maritime Organization** to put forward proposals for further preventive action.

1990 (3 Paragraphs, 16 Sentences, 0 Priority Placement)

Houston Economic Declaration: Environment (3 Paragraphs, 16 Sentences)

One of our most important responsibilities is to pass on to future generations an environment whose health, beauty, and economic potential are not threatened. Environmental challenges such as climate change, ozone depletion, deforestation, **marine pollution**, and loss of biological diversity require closer and more effective international cooperation and concrete action. We as industrialized countries have an obligation to be leaders in meeting these challenges. We agree that, in the face of threats of irreversible environmental damage, lack of full scientific certainty is no excuse to postpone actions, which are justified in their own right. We recognize that strong, growing, market-oriented economies provide the best means for successful environmental protection.

The destruction of ecologically sensitive areas around the world continues at an alarming pace. Loss of temperate and tropical forests, developmental pressures on **estuaries, wetlands and coral reefs**, and destruction of biological diversity are symptomatic. To reverse this trend, we will expand cooperation to combat desertification; expand projects to conserve biological diversity; protect the Antarctic; and assist developing countries in their environmental efforts. We will work within UNEP and other fora to achieve these objectives, and will participate actively in UNEP's work to protect biodiversity.

Efforts to protect the environment do not stop at the water's edge. Serious problems are caused by **marine pollution, both in the oceans and in coastal areas**. A comprehensive strategy should be developed to address land-based sources of pollution; we are committed to helping in this regard. We will continue our efforts to avoid oil spills, urge the early entry into force of the existing **International Maritime Organization (IMO)** Convention, and welcome the work of that organization in developing an international oil spills convention. We are concerned about the impact of environmental degradation and **unregulated fishing practices on living marine resources**. We support cooperation in the **conservation of living marine resources** and recognize **the importance of regional fisheries organizations** in this respect. We call on all concerned countries to respect the conservation regimes.

1991 (3 Paragraphs, 8 Sentences, 0 Priority Placement)

Economic Declaration: Building a World Partnership: Environment (3 Paragraphs, 8 Sentences)

[We will seek to promote] a comprehensive approach to the **oceans, including regional seas**. The environmental and economic importance of **oceans and seas** means that they must be protected and sustainably managed.

The burning oil wells and **polluted seas** in the Gulf have shown that we need greater international capacity to prevent and respond to environmental disasters. All international and regional agreements for this purpose, including those of the **International Maritime Organization (IMO)**, should be fully implemented. We welcome the decision by UNEP to establish an experimental centre for urgent environmental assistance. In the light of the recent storm damage in Bangladesh, we encourage the work on flood alleviation under the auspices of the World Bank, which we called for at the Arch Summit.

Living marine resources threatened by over-fishing and other harmful practices should be protected by the implementation of measures in accordance with international law. We urge **control of marine pollution and compliance with the regimes established by regional fisheries organisations** through effective monitoring and enforcement measures.

1992 (2 Paragraphs, 4 Sentences, 0 Priority Placement)

Economic Declaration: Working Together for Growth and a Safer World: The United Nations Conference on Environment and Development (2 Paragraphs, 4 Sentences)

The Earth Summit has been a landmark in heightening the consciousness of the global environmental challenges, and in giving new impetus to the process of creating a worldwide partnership on development and the environment. Rapid and concrete action is required to follow through on our commitments on climate change, to protect forests and **oceans**, to **preserve marine resources**, and to maintain biodiversity. We therefore urge all countries, developed and developing, to direct their policies and resources towards sustainable development, which safeguards the interests of both present and future generations.

[To carry forward the momentum of the Rio Conference, we urge other countries to join us] by ensuring the **international conference on straddling fish stocks and highly migratory fish stocks in the oceans** is convened as soon as possible.

1993 (1 Paragraph, 3 Sentences, 0 Priority Placement)

Economic Declaration: A Strengthened Commitment to Jobs and Growth: Environment (1 Paragraph, 3 Sentences)

We look forward to a successful outcome of the **UN Conference on straddling and highly migratory fish stocks**. We shall continue to seek appropriate internationally agreed arrangements on the management, conservation and sustainable development of forests. We welcome the analysis being done by OECD/IEA on the contribution of environment and energy technologies in meeting global environmental concerns.

1994 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1995 (1 Paragraph, 2 Sentences, 0 Priority Placement)

Communiqué: Safeguarding the Environment (1 Paragraph, 2 Sentences)

We underline the importance of meeting the commitments we made at the 1992 Rio Earth Summit and subsequently, and the need to review and strengthen them, where appropriate. Climate change remains of major global importance. We will work with others to: fulfill our existing obligations under the Climate Change Convention, and our commitments to meet the agreed ambitious timetable and objectives to follow up the Berlin Conference of the Parties; implement the medium-term work programme adopted pursuant to the Convention on Biological Diversity; conclude successfully the work of the CSD intergovernmental panel on forests, and **promote a successful UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks and international consensus at the next CSD session on action to deal with the problems of the world's oceans.**

1996 (1 Paragraph, 4 Sentences, 0 Priority Placement)

Chairman's Statement: Toward Greater Security and Stability in a more Cooperative World: Environment (1 Paragraph, 4 Sentences)

Protecting the environment is crucial in promoting sustainable development. In view of the threats such as global warming, desertification, deforestation, depleting resources and threatened species, and unsustainable urban development, we place top priority on integrating environmental protection more completely into all of our policies. We are exploring the possibility of supplementing our national income accounts to better measure resources, such as forests, minerals and **fish**, and the economic value of air, **water** and soil quality. We welcome the great potential of the environment protection industry, which can have positive effects on long term economic growth and employment.

1997 (1 Paragraph, 3 Sentences, 0 Priority Placement)

Communiqué: Oceans (1 Paragraph, 3 Sentences)

We must strengthen our efforts to protect the world's **oceans**. We will work to ensure an effective and integrated effort to deal with key issues, including **sustainable fishing, shipping, marine pollution from land-based and off-shore activities, and oil spill prevention and emergency response**. In this connection, we will also **enhance cooperation in monitoring the ecology in the Northern Pacific**, as well as in forecasting earthquakes and tsunamis in this region.

1998 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

1999 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

2000 (2 Paragraphs, 6 Sentences, 0 Priority Placement)

G8 Communiqué Okinawa 2000: Human Genome (2, Paragraphs, 6 Sentences, 0 Priority Placement)

Strengthening **international maritime safety** is vital for the **protection of the ocean environment, a global heritage**. We will jointly co-operate with the **International Maritime Organization (IMO)** to improve **maritime safety**. We endorse efforts by the **IMO** to strengthen safety standards, in particular **for ships carrying dangerous or polluting cargo**, and to verify implementation and enforcement of the application of international standards by flag States. We also endorse efforts by **coastal states** to enhance safety of navigation and protection of their **marine environment** through the use, where appropriate, of **IMO-adopted** routing and reporting measures. We encourage the early achievement of these goals.

We welcome the **IMO** efforts to pursue practical reform of current international regimes on **maritime pollution**, in particular the **1992 Convention on Civil Liability for Oil Pollution Damage** and the **1992 International Oil Pollution Compensation (IOPC) Convention** with respect to, inter alia, better compensation.

2001 (0 Paragraphs, 0 Sentences, 0 Priority Placement)

None.

2002 (3 Paragraphs, 19 Sentences, 0 Priority Placement)

Cooperative G8 Action on Transport Security: Maritime Security (3 Paragraphs, 3 Sentences)

Support, in the **IMO**, amendment of the **International Convention for the Safety of Life at Sea (SOLAS)** to accelerate the date of the installation of automatic identification systems (AIS) on certain **ships** to December 2004.

Support, in the **IMO**, amendment of the **International Convention for the Safety of Life at Sea (SOLAS)** to require mandatory ship security plans and ship security officers on board **ships** by July 2004.

Support, in the **IMO**, amendment of the **International Convention for the Safety of Life at Sea (SOLAS)** to require mandatory port facility security plans and port facility

security assessments for relevant **ports** serving **ships engaged on international voyages** by July 2004.

2003 (6 Paragraphs, 13 Sentences, 0 Priority Placement)

Chair's Summary (1 Paragraph, 2 Sentences, 0 Priority Placement)

Marine environment and tanker safety. We endorsed an Action Plan to reduce the threat posed by excessive **exploitation of marine resources and to enhance maritime security.**

Marine Environment and Tanker Safety: A G8 Action Plan (5 Paragraphs, 12 Sentences)

Global sustainable development and poverty reduction requires healthier and more **sustainably managed oceans and seas.** The **fisheries** sector alone is the main source of protein for one billion people as well as a major provider of livelihoods: it provides some 5-10% of the world's food supply. There is growing pressure on the marine environment. The **decline in marine biodiversity and the depletion of fish stocks** are of increasing concern, as is the use of **Flags of Convenience, especially for fishing vessels,** as a means to avoid management conservation measures. The recent sinking of the "Prestige" has again demonstrated that **tanker safety and pollution prevention** have to be further improved.

By acting in accordance with the relevant United Nations Conventions, we will work towards **sustainable fisheries and marine conservation.** Specifically, we commit to: **The ratification or acceding to and implementation of the United Nations Convention on the Law of the Sea, which provides the overall legal framework for oceans;** Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, for the management of human activities in order to **protect oceans and seas and their resources,** drawing on the work underway in the UN Convention on Biological Diversity and the Food and Agriculture Organisation (FAO); Maintain the productivity and biodiversity of important and vulnerable **marine and coastal areas, including on the high seas;** The urgent **restoration and maintenance of fish stocks.** **The ratification and effective implementation of the relevant UN and, where appropriate, associated regional fisheries agreements or arrangements, noting in particular the UN Fish Stocks Agreement;** The urgent development and implementation of international plans of action under the FAO, inter alia to **eliminate illegal, unreported and unregulated (IUU) fishing;** **Strengthening regional fisheries organisations,** including through improved data collection and compliance with their measures by their member States; Reaffirmation of the commitments made at Doha, to clarify and improve disciplines in the context of negotiations under **the Agreement on Subsidies and Countervailing Measures that covers fisheries subsidies,** and at Johannesburg to reform subsidies that damage the environment and are otherwise incompatible with sustainable development; Address the lack of effective **flag State control of fishing vessels, in particular those flying Flags of Convenience;** **Build capacity in marine science,** information and management, through, inter alia, promoting

the use of environmental impact assessments and environmental evaluation and reporting techniques, for projects or activities that are potentially harmful to the **coastal and marine environments and their living and non-living resources**; Improved co-ordination and co-operation among national agencies and international organisations, notably the **International Maritime Organisation (IMO)**, the FAO, the **Intergovernmental Oceanographic Commission** and the UN Environment Programme, including through capacity building to improve global assessment and reporting and strengthen science-based decision making; The incorporation of priorities from the **1995 Global Programme of Action for the Protection of the Marine Environment** into national, regional and international policies and initiatives; Establish **ecosystem networks of marine protected areas**, consistent with international law and based on scientific information by 2012 in our own waters and regions, and work with others to achieve the same in theirs. For those of us who participate in the **1995 Code of Conduct for Responsible Fisheries** of the FAO, promote responsible **fisheries** as embodied in this code. We have agreed to take all necessary and appropriate steps to **strengthen international maritime safety**. We will support **IMO** efforts, and will take the lead within the **IMO** in order to: Work towards further accelerating the **phasing out of single hulled tankers**; Address through appropriate measures the special risks posed by the carriage of the heaviest grades of oil in **single hulled tankers**; Accelerate the introduction of a code in particular for flag States. As a first step, introduce a voluntary model audit scheme with the aim of enhancing the responsibilities of flag States for the effective implementation and control of **IMO** instruments and to enhance supervision over recognised organisations authorised by flag States; Establish mandatory pilotage in narrow, restricted and congested **waters** in conformity with **IMO** rules and procedures. Relevant coastal States should also give consideration to the introduction, in such waters, of pilots' immediate reporting to the relevant authority of evident defects or deficiencies, and to other measures; Accelerate the adoption of guidelines on places of refuge for **vessels** in distress; Enhance compensation funds to the benefit of the victims of **oil pollution and review the international compensation regime**; Support efforts to improve the **training of seafarers**, including mandatory minimum qualifications. We have also agreed to intensive port State control inspections and to carry them out effectively, and to make publicly available details of any **ships** detained; to these ends, as appropriate, to request the relevant regional bodies, such as the Paris Memorandum and the Tokyo Memorandum, to update as soon as possible existing procedures and guidelines in this sphere.

We shall consider expanding existing potential for technical cooperation programmes, within the framework of the **IMO** Technical Co-operation Committee and Subcommittee on Flag State Implementation, for assisting countries in their efforts to increase **maritime safety and pollution prevention**, including the effective discharge of flag State obligations and adequate application of port State control procedures.

We are, in addition to efforts to **improve the safety regimes for tankers**, committed to act on the significant environmental threat posed by **large cargo vessels and their bunkers** and therefore encourage the adoption of liability provisions including, where appropriate, through the ratification of relevant international liability conventions, in

particular **the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (Bunker Convention) and the 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea.**

Science and Technology for Sustainable Development: A G8 Action Plan (0 Paragraphs, 1 Sentence)

Build on existing work to produce reliable data products on atmosphere, land, fresh water, **oceans** and ecosystems.

2004 (0 Paragraph, 0 Sentences, 0 Priority Placement)

None.

2005 (2 Paragraph, 6 Sentences, 0 Priority Placement)

Climate Change, Clean Energy and Sustainable Development (1 Paragraph, 1 Sentence)

Reducing pollution protects public health and ecosystems. This is particularly true in the developing world. There is a need to improve air and **water** quality in order to alleviate suffering from respiratory disease, reduce public health costs and prolong lives.

Prime Minister Tony Blair's Statement on the G8 Gleneagles Summit to the British Parliament in London, July 11, 2005 (1 Paragraph, 3 Sentences).

Climate Change is perhaps the most long-term serious threat to our environment. Already **sea ice in the Arctic has shrunk** by one million square kilometres; the ten hottest years on record have all occurred since 1991; and **sea levels are rising**. Until now the international community has been divided, with no agreement on the nature or urgency of the problem, what to do about it, or how to start a discussion which would involve both the United States and the key emerging economies such as India and China.

2006 (2 Paragraphs, 3 Sentences, 0 Priority Placement)

George Bush and Vladimir Putin on the Global Initiative to Combat Nuclear Terrorism (1 Paragraph, 3 Sentences)

Today we announce our decision to launch the Global Initiative to Combat Nuclear Terrorism. Building on our earlier work, the Global Initiative reflects our intention to pursue the necessary steps with all those who share our views to prevent the acquisition, transport, or use by terrorists of nuclear materials and radioactive substances or improvised explosive devices using such materials, as well as hostile actions against nuclear facilities. These objectives are reflected in the International Convention for the Suppression of Acts of Nuclear Terrorism, the Convention on the Physical Protection of

Nuclear Material and Nuclear Facilities as amended in 2005, the **Protocol to the Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation**, and other international legal frameworks relevant to combating nuclear terrorism.

Global Energy Security: Securing Critical Energy Infrastructure (1 Paragraph, 1 Sentence)

We call upon governments to fully implement the International Ships and Ports Facility Security Code and encourage attention to the management of **maritime security**.

G8 Summit Declaration on Counter-Terrorism (1 Paragraph, 1 Sentence)

We reaffirm our commitment to collaborative work, with our international partners, to combat the terrorist threat, including promoting international cooperation in subway, rail and road security and in raising standards in aviation, and **maritime security**.

2007 (1 Paragraph, 10 Sentences, 0 Priority Placement)

G8 Summit Statement on Counter Terrorism: Improving Transport Security (1 Paragraph, 10 Sentences)

We emphasize the importance of continuing to improve transport security. Several attempted attacks on airliners, trains and other means of transport once more highlighted the continuing determination of terrorist groups to strike at transport networks indispensable to global commerce, tourism and other kinds of international contacts. At our Summit in Sea Island we adopted the Secure and Facilitated International Travel Initiative (SAFTI). Today, we announce the successful completion of all its 28 projects. We are convinced that this work has made international travel more secure. Its results have been shared with relevant international bodies, including the International Civil Aviation Organization (ICAO), the **International Maritime Organization (IMO)** and the World Customs Organization (WCO). We resolve to continue our efforts to secure the international transportation network. Drawing lessons from recent terrorist activities, our experts have worked on addressing new threats. This includes, but is not limited to countering the use of liquid explosives. Furthermore, we aim to improve passenger screening programs and techniques, port facility security audits, security management systems and transportation security clearance programs. In the area of land transport we welcome the creation of the International Working Group on Land Transport Security composed of G8 and non-G8 countries.

2008 (3 Paragraphs, 11 Sentences, 0 Priority Placement)

Environment and Climate Change (1 Paragraph, 3 Sentences)

Sectoral approaches can be useful tools to improve energy efficiency and reduce GHG

emissions through dissemination of existing and new technologies in a manner compatible with economic growth. We ask the IEA to enhance its work on voluntary sectoral indicators through improved data collection, complemented by business initiatives. We emphasize the importance of expeditious discussions in the International Civil Aviation Organization (ICAO) and the **International Maritime Organization (IMO)** for limiting or reducing GHG emissions in the international aviation and **maritime sectors**, bearing in mind the distinct processes under the UNFCCC toward an agreed outcome for the post-2012 period.

G8 Leaders' Statement on Counter-Terrorism (1 Paragraph, 3 Sentences)

We, the leaders of the G8, condemn in the strongest terms all acts of terrorism, and commit ourselves to take every possible measure to counter this threat to the international community. We have taken cooperative actions against terrorism, particularly in successive G8 Summits since 2001, including strengthening the role of the United Nations, improving information sharing, and combating the financing of terrorism, strengthening the security of land, **sea**, and air transport, undertaking measures for better control of Man-Portable Air Defense Systems, and launching the Secure and Facilitated International Travel Initiative. Still, terrorism remains one of the most serious threats affecting all countries and peoples in the world.

Report to G8 Summit Leaders from the G8 Experts on International Terrorism and Transnational Organized Crime: Transport Security (1 Paragraph, 5 Sentences)

Attacks in recent years demonstrate that terrorists seek to target mass transportation systems. Although some attacks have been prevented, others have been carried out causing serious damage and many casualties. The G8 has been playing a leading role in improving transport security and it continues to study and develop effective measures to enhance security in the field of aviation security, **maritime and port security** as well as land transport security. Results are shared within the G8 and relevant international organizations. We note with appreciation the activities of the International Working Group on Land Transport Security and work in close cooperation with the Group.

2009 (6 Paragraphs, 15 Sentences, 0 Priority Placement)

G8 Leaders Declaration: Responsible Leadership for a Sustainable Future (2 Paragraphs, 4 Sentences)

Attention should also be devoted to sectors, such as international aviation and **maritime transport** that represent a significant and growing source of emissions and are characterized by a predominantly international dimension. We will use our participation in the ICAO, **IMO**, and UNFCCC processes to reach an agreed outcome for the post-2012 period to rapidly advance towards accelerated emission reductions for the international aviation and **maritime** sectors.

Support **maritime security** capacity development in Africa. In this respect, we welcome and support the growing interest of the African Union and its member States in **maritime security**, which is a prerequisite for development and must be strengthened to improve Africa's trade and investment climate.

Political Issues: Piracy and Maritime Security (4 Paragraphs, 11 Sentences)

We agreed that, because of the destabilizing factors behind it and the broad regional and international impacts entailed, **piracy** must be addressed through coordinated efforts by the international community. **Counter-piracy** activities should be carried out in the context of a strategic and comprehensive international undertaking to build and promote **maritime security** in and around the Horn of Africa and the African continent more broadly, while we protect **maritime shipping** and take active measures to prevent **acts of violence at sea and piracy**. We recognize the critical role of **maritime security** for delivering international assistance, trade, development, and regional stability.

We support international initiatives undertaken to that end, to which G8 members are already contributing, including those aimed at ensuring the development of adequate legal frameworks to fight **piracy** and other **maritime-related crimes**, and at attracting resources, commitment and action to build the capacity of regional states to better control their **coasts and territorial waters**, contribute to **maritime security**, as well as to judge and detain the pirates. We commended the leadership role of Kenya in the prosecution and detention of pirates. We intend as well to improve coordination and cooperation with industry to ensure best security measures and practices are in effect to prevent these acts.

Fighting **piracy** requires both near-term countermeasures and longer-term assistance and structural interventions to target its root causes. While we stand committed to reinforcing the success of **international counter-piracy patrolling missions**, we recognize that a sustainable solution to **piracy** will also require strengthening the rule of law and law enforcement capacities in Somalia and the region, as well as helping those countries meet other challenges such as poverty and ongoing conflicts. This includes urgently addressing: the lack of basic security and fragility of state authority in Somalia; **port security improvements**; trafficking in drugs, arms and persons; **illegal dumping and illegal fishing**. We confirm that **vessels** entitled to fly the flag of any G8 member required to respect the legal regime in Somali **waters**, and commit to fulfill our international legal obligations in this respect.

We commit to contributing, through cooperation with international partners and coordinated bilateral programs, to achieve the goals defined by the Contact Group on **Piracy off the Coast of Somalia** – and related multilateral efforts, including the Djibouti Code of Conduct facilitated by the **International Maritime Organization** – and the International Contact Group for Somalia.

2010 (5 Paragraphs, 19 Sentences, 0 Priority Placement)

International Peace and Security

We, the Leaders of the G8, remain deeply concerned about serious threats to global peace and security. We are all affected by threats from the proliferation of weapons of mass destruction, terrorism, international organized crime (including drug trafficking), **piracy** and from political and ethnic conflict. Prosperity, development and security are inextricably linked, and the economic well being and security of our own countries and those around the world are therefore interdependent. We share a vision of a peaceful world, based on the principles of freedom, democracy, respect for human rights and the rule of law, and remain ready to continue to work on this basis in partnership with each other and other concerned countries to address security challenges that affect us all.

Conflict, crime, **piracy** and terrorism continue to threaten global stability, security and prosperity. We, the G8, are committed to helping partner states and regions to continue to build the civilian security capacities they need to deal with these vulnerabilities. G8 Leaders and African partners were joined by the Presidents of Colombia and Haiti and the Prime Minister of Jamaica to address security vulnerabilities such as terrorism, proliferation, drug trafficking, the flow of illicit funds and transnational organized crime. We therefore agreed to task our ministers to consult jointly with interested partners from Africa and the Americas, as well as other parties, and to consider additional steps that might be taken to address these security vulnerabilities. To this end, we commit to strengthening: the international availability of civilian experts to support rule of law and security institutions; the capacities of key littoral states and regional organizations for maritime security; and international peace operations. The scope of our on-going efforts is elaborated in Annex II.

Building on our past efforts and those of our partners, the G8 commits to a set of three interrelated initiatives to strengthen civilian security systems, in accordance with our respective national priorities and programs. These initiatives will aim to reduce the intensity of conflict-related instability, protect civilians in situations of armed conflict, counter terrorism, combat **piracy** and transnational crime and help establish an enabling environment for growth, investment and democratic development.

Maritime Security Capacity

When **coastlines** are without effective governance, they offer a haven for criminals, traffickers, **pirates** and terrorists. With close to **90,000 ships plying the seas**, growing problems of **piracy** and billions of dollars worth of drugs and other contraband on the move are threatening global stability and security. We reaffirm our commitment to fight **piracy off the coast of Somalia**, and are concerned with its spread to **nearby waters**.

By contributing to ongoing international efforts, the G8 will continue to assist key littoral states and regional organizations in **maritime security**. This will include capacity building in areas such as **maritime governance, patrol aviation, coast guards, fisheries**

enforcement, and maritime intelligence sharing and fusion, as well as legislative, judicial, prosecutorial and correctional assistance. The goal will be to improve the operational effectiveness and response time of states and regional organizations in **maritime** domain awareness and sovereignty protection. These efforts will help to better **secure coastlines and prosecute pirates**, as called for by UN Security Council Resolution 1918 (2010). Moreover, they will help counter the growing links between criminal and terror networks that undermine the stability and governance of many states in Latin America, the Caribbean and Africa.

Appendix C: G8 Direction-Setting Ocean Governance

Year	Cause	Fact	Consequence	Rectitude	Relevant Actor	Responsibility
1980	a) Maritime Security b) Humanitarian concerns	Indochinese and Cuban refugees	Refugees were assisted by the international community	Refugees must be assisted	G8	Assist refugees through international collaboration
1982	Technology	Oceanographic Exploration	Extract new natural resources, energy, minerals		G8	
1985		(Regional) seas must be strengthened and protected	Negative impact on oceans	Must strengthen seas	G8	Strengthen international cooperation
1986	Terrorism	Use IMO expertise in combating terrorism	Less terrorism	Must defeat terrorism	G8	Like-minded action
1987	a) Human activity b and c) Protect against terrorism d) Iran-Iraq War, free flow of oil and traffic in straight of Hormuz	a) Water pollution b) Maritime security must be improved c) encourage the work of the IMO d) Principle of freedom of navigation must be upheld	a) negative impact on oceans b and c) Less terrorism	a) stringent environment-al standards b) Protect travelers	G8	a) Tackle effectively b) Improve Safety
1988	a) Human activity b) Adoption of two international security agreements in Montreal and Rome of that year	a) Pollution of the sea b) welcome adoption of international agreement in Rome on maritime security	a) negative impact on oceans b) Less terrorism	a) negotiations on emissions protocol be pursued energetically b) Protect travelers	G8	a) requires priority attention b) Improve safety
1989	a, b, c, d) Human activity e) Exxon Valdez oil spill f) asking IMO to put forward proposals for further preventative action regarding oil spills	a) pollution of oceans and seas b) Degradation of coastal waters c) Sustainable management of the marine environment d) Conservation of living resources of the sea e) National, regional, and global capabilities must be improved to protect against maritime oil spills f) IMO	a) negative impact on species, individuals, and societies b, c, d) negative impact on marine environment	a, b, c, d) condemn use of oceans as dumping grounds e) Increase capabilities to monitor and clean up oil spills	G8	a, b, c, d) Strengthen international cooperation e) adhere to and fully implement the international conventions for the prevention of oil spills
1990	a) Human activity b) c) Efforts to avoid oil spills d) Human activity	a) Marine pollution b) Destruction of estuaries, wetlands, and coral reefs c) urge the entry into force of the IMO Convention d) unregulated	a) negative impact on ocean b) negative impact on marine environment c) In 1991, the amendments to IMO Convention	a) must strengthen seas b) must protect estuaries, wetlands, and coral reefs c) work to conserve marine	G8	a and b) international cooperation and concrete action d, e, f) respect conservation regimes

		fishing practices on living marine resources e) conservation of living marine resources f) importance of regional fisheries organizations	enter into force d) decline in global fish populations	resources		
1991	b, c) 1991 Gulf War, burning of oil wells d) Human activity	a) environmental and economic of oceans and (regional) seas b) Polluted seas in the Gulf c) All IMO agreements should be implemented d) Living marine resources threatened by over-fishing e) Urge compliance with the regimes established by regional fisheries organizations	b) negative impact on ocean d) decline in living marine resources	a, d) oceans and seas must be protected and sustainably managed b) need better response to environment disasters	G8	b) increased international capacity d, e) compliance with conservation regimes
1992		a) protect the oceans and preserve marine resources b) Urge countries to join UN Conference on Straddling and Highly Migratory Fish Stocks	b) UN Conference on Straddling and Highly Migratory Fish Stocks adopted in 1995	a) Must protect oceans	G8	a) follow through on commitments
1993		UN Conference on Straddling and Highly Migratory Fish Stocks	UN Conference on Straddling and Highly Migratory Fish Stocks adopted in 1995		G8	
1995		Promote successful UN Conference on Straddling and Highly Migratory Fish Stocks and seek consensus at the next Commission on Sustainable Development (CSD) session	UN Conference on Straddling and Highly Migratory Fish Stocks adopted in 1995		G8	International cooperation
1996		Explore supplementing national income accounts to better measure resources like fish and water quality		Protect the marine environment	G8	Better integrate environmental protection into policy
1997	b) human activity, oil spills	a) Oceans must be strengthened and protected b) ensure sustainable fishing,		a, b) must protect oceans	G8	a, b) effective and integrated effort c) enhance cooperation

		shipping, marine pollution from land-based and offshore activities, and oil spill prevention and emergency response c) enhance monitoring the ecology in the Northern Pacific				
2000		a) Strengthened international maritime safety b) protect the oceans environment c) cooperate with IMO to improve maritime safety d) strengthen safety standards for ships carrying dangerous or polluting cargo e) endorse coastal state efforts to enhance safety of navigation and protection of marine environment through IMO f) reform international regimes on maritime pollution: 1992 Convention on Civil Liability for Oil Pollution Damage; 1992 International Oil Pollution Compensation		a) protect marine environment b-e) enhance maritime safety f) increase compensation	G8	a-f) jointly cooperate with IMO
2002		Support, in the IMO, amendment of the International Convention for the Safety of Life at Sea (SOLAS) to accelerate the date of the installation of automatic identification systems (AIS) on certain ships to December 2004; to require mandatory ship security plans and ship security officers on board ships by July 2004; to require mandatory port facility security plans and port facility security		Improve maritime safety	G8	Support IMO amendments

		assessments for relevant ports serving ships engaged on international voyages by July 2004				
2003	d) over-fishing e) Human activity g-t) proclamation to act in accordance with UNCLOS t-v) Prestige, maritime oil spills	a) marine environment and tanker safety b) exploitation of marine resources and enhance maritime security c) sustainable management of oceans and seas d) depletion in fish stocks e) decline in marine bio-diversity f) Increasing use of Flags of Convenience g) Commit to the ratification or acceding to and implementation of the United Nations Conventions on the Law of the Sea, which provides the overall legal framework for oceans h) Protect oceans and seas and their resources i) Maintain productivity and biodiversity of important and vulnerable marine and coastal areas including on high seas j) Commit to the ratification and effective implementation of the relevant UN and, where appropriate, associated regional fisheries agreement or arrangements, noting in particular the UN Fish Stocks Agreement k) Eliminate illegal, unreported and unregulated (IUU)	a, b) endorsed an Action Plan to tackle issue	a-t) marine environment needs attention t-v) prevent oil spills	G8	g-t) Act collectively in accordance with UN

		fishing l) Strengthen regional fisheries organizations m) Reaffirm commitments under the Agreement on Subsidies and Countervailing Measures that covers fisheries subsidies n) Address the lack of effective flag state control of fishing vessels, in particular those flying flag of convenience o) Build capacity in marine science p) Increase ability to monitor coastal and marine environments q) Improved cooperation between organizations like the IMO and the Intergovernmental Oceanographic Commission r) Incorporate priorities from the 1995 Global Programme of Action for the Protection of the Marine Environment s) Establish networks of marine protected areas t) Strengthen international maritime safety u) Support the IMO v) Improve the safety regime for tankers w) Commit to act on the environmental threat posed by large cargo vessels and their bunkers and therefore encourage adoption of the 2001 International Convention on the Civil Liability for				
--	--	--	--	--	--	--

		Bunker Oil Pollution Damage and the 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substance by Sea x) work to strengthen reliable data products on oceans				
2005	a) human activity b) climate change	a) need to improve water quality b) Sea ice in the Arctic has shrunk and sea levels are rising	a) health problems b) environmental devastation	a) Protect public health and ecosystems b) must combat climate change	a) G8 b) British parliament	b) International cooperation
2006	a) Launch of the Global Initiative to Combat Nuclear Terrorism	a) Support the Protocol to the Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation b) Encourage attention to the management of maritime security c) Commitment to collaborative work in regards to maritime security	a) less terrorism b) increased maritime security	a) stop terrorism b, c) improve maritime security	a) U.S., Russia b, c) G8	a) collective action b, c) collaborative work and increased attention
2007	recent terrorist activities on airlines and trains	the completion of all 28 projects of the Secure and Facilitated International Travel Initiative (SAFTI) adopted at the Sea Island Summit was shared with the IMO	international travel is more secure	stop terrorism	G8	international cooperation
2008	a) Human activity, GHG emissions b, c) recent terrorist attacks	a) importance of IMO in discussions for reducing GHG emissions in the maritime sectors b) strengthen the security of the sea c) continue to enhance maritime and port security	a) less terrorism b) increased maritime and port security	a) support IMO b, c) must strengthen maritime security and stop terrorism	G8	a) expeditious discussions in IMO b, c) cooperative action
2009	a) Increasing degradation of the marine	a) use participation in the IMO to reach an agreed outcome	b-f) Less maritime piracy; improved port security;	a) Rapidly advance towards emission reductions	G8	a) Participation in the IMO b-f) International

	environment b-f) Maritime piracy in the Indian Ocean	for the post-2012 period for emission reductions b) Support maritime security capacity development in Africa c) Commitment to build the capacity of states to better control their coastal waters d) Commitment to reinforcing the success of international counter-piracy patrolling missions e) Improve port security and combat illegal dumping and illegal fishing f) We commit to contributing, through cooperation with international partners and coordinated bilateral programs, to achieve the goals defined by the Contact Group on Piracy off the Coast of Somalia – and related multilateral efforts, including the Djibouti Code of Conduct facilitated by the IMO – and the International Contact Group for Somalia	increase in collaborative efforts to combat maritime piracy	b-f) Must improve maritime security		collaboration
2010	a-d) Maritime Piracy and links to crime and terrorism	a) We commit to strengthening: the international availability of civilian experts to support rule of law and security institutions; the capacities of key littoral states and regional organizations for maritime security; and international peace operations b) the G8 commits to a set of three interrelated initiatives to strengthen civilian	N/A	a) Must improve maritime security	G8, UN	a-c) International collaboration d) Support UN, and local states to improve their maritime security capacities

		<p>security systems, in accordance with our respective national priorities and programs. These initiatives will aim to reduce the intensity of conflict-related instability, protect civilians in situations of armed conflict, counter terrorism, combat piracy and transnational crime and help establish an enabling environment for growth, investment and democratic development</p> <p>c) We reaffirm our commitment to fight piracy off the coast of Somalia, and are concerned with its spread to nearby waters</p> <p>d) the G8 will continue to assist key littoral states and regional organizations in maritime security. This will include capacity building in areas such as maritime governance, patrol aviation, coast guards, fisheries enforcement, and maritime intelligence sharing and fusion, as well as legislative, judicial, prosecutorial and correctional assistance. The goal will be to improve the operational effectiveness and response time of states and regional organizations in maritime domain awareness and sovereignty protection. These efforts will help to better secure</p>				
--	--	---	--	--	--	--

		coastlines and prosecute pirates, as called for by UN Security Council Resolution 1918 (2010). Moreover, they will help counter the growing links between criminal and terror networks that undermine the stability and governance of many states in Latin America, the Caribbean and Africa				
--	--	--	--	--	--	--

**Appendix D:
G8 Maritime Vulnerability and Capability Table**

<i>Countries</i>	<i>Area</i>	<i>Coastline</i>	<i>Coast/Area Ratio (m/km²)*</i>	<i>Maritime Claims in Nautical Miles (nm)</i>	<i>Navy Personnel (world rank)</i>	<i>Merchant Marine (world rank)</i>	<i>Number of Oil Tankers</i>	<i>Number of Major Cities on Coasts</i>
Canada	9,984,670km	202,080km	22.222	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Contiguous Zone: 24nm • Exclusive Economic Zone: 200nm • Continental Shelf: 200nm or to the edge of the continental margin 	9,000 (28 th)	175 (38 th)	12	7
France	643,427km	4,668km	6.281	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Contiguous Zone: 24nm • Exclusive Economic 	63,300 (5 th)	138 (43 rd)	23	7

				Zone: 200km (does not apply to the Mediterranean)				
Germany	357,022km	2,389km	6.841	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Exclusive Economic Zone: 200nm • Continental Shelf: 200m depth or the depth of exploitation) 	26,700 (17 th)	393 (26 th)	11	4
Italy	301,340km	7,600km	25.849	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Continental Shelf: 200m depth or to depth of exploitation 	40,000 (14 th)	609 (20 th)	35	6
Japan	377,915km	29,751km	79.390	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Contiguous Zone: 24nm • Exclusive Economic Zone: 200nm 	43,800 (11 th)	683 (16 th)	156	8
Russia	17,098,242km	37,653km	2.215	<ul style="list-style-type: none"> • Territorial Sea: 12m • Contiguous Zone: 24nm • Exclusive Economic Zone: 200nm • Continental Shelf: 200m depth or to the depth of exploitation 	142,000 (3 rd)	1,074 (9 th)	217	3
United Kingdom	243,610km	12,429km	51.447	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Exclusive Fishing Zone: 200nm • Continental Shelf: as defined in continental 	44,500 (10 th)	518 (22 nd)	23	9

United Kingdom	243,610km	12,429km	51.447	<ul style="list-style-type: none"> • Territorial Sea: 12nm • Exclusive Fishing Zone: 200nm • Continental Shelf: as defined in continental shelf orders or in accordance with agreed upon boundaries 	44,500 (10 th)	518 (22 nd)	23	9
United	9,826,675km	19,924km	2.175	<ul style="list-style-type: none"> • Territorial 	380,600 (1 st)	422 (24 th)	53	23

* The coast/area ratio measures how many meters of coastline correspond to every square kilometre of land area. The ratio illustrates the ease of accessibility to the country's coast from every point in its interior. Therefore, an island country like Maldives, or a country carved by the sea like Greece, is more likely to have a high ratio, while a landlocked country like Austria will have a ratio of zero.