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JOINT COMMITTEE OF PUBLIC ACCOUNTS AND AUDIT

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JOINT COMMITTEE OF PUBLIC ACCOUNTS AND AUDIT

Tuesday, 17 October 2000

Members: Mr Charles (*Chairman*), Senators Coonan, Faulkner, Gibson, Hogg, Murray and Watson and Mr Andrews, Mr Cox, Mr Georgiou, Ms Gillard, Mr Lindsay, Mr St Clair, Mr Somlyay, Mr Tanner and Mr Kelvin Thomson

Senators and members in attendance: Senators Gibson and Hogg and Mr Charles, Mr Cox, Mr Lindsay and Mr St Clair

Terms of reference for the inquiry:

To inquire into and report on:

- the role and expectations (both public and government) of Coastwatch;
- the relationship of Coastwatch, as ‘service provider’, and its client agencies, as ‘service purchasers’;
- the effectiveness of Coastwatch’s allocation of resources to its tasks;
- new technologies which might improve the performance of Coastwatch;
- the adequacy of existing or proposed legislation which underpins Coastwatch’s functions;
- whether an Australian Coastguard should be created to take over Coastwatch’s functions; and
- any other issues raised by *Audit Report 38, 1999–2000, Coastwatch—Australian Customs Service*.

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Committee met at 9.05 a.m.

CHAIRMAN—The Joint Committee of Public Accounts and Audit will now take evidence, as provided for by the Public Accounts and Audit Committee Act 1951, for its review of Coastwatch. I welcome everyone here this morning. I also welcome those who are viewing proceedings via the Internet. This is the second in a series of hearings which will examine Coastwatch clients, Coastwatch contractors, potential suppliers of high-tech hardware and surveillance systems, and members of the public. Further hearings will be held in Melbourne and Brisbane in October.

The committee has already heard from Coastwatch and some of its clients. The hearing will begin with the balance of Coastwatch clients: the Australian Fisheries Management Authority, the Australian Maritime Safety Authority, and Environment Australia. The committee will seek their comments on how well Coastwatch balances their priorities against those of its other clients: Customs, the Department of Immigration and Multicultural Affairs and the Australian Federal Police.

The committee will then take evidence from three groups who see a different direction for coastal surveillance. Mr John Simmons is a marine consultant whose submission explores the need for a stand-alone coastguard operation, a view similar to that of the Maritime Policy Unit at the University of Wollongong. The Returned Services League will also be appearing. The RSL advocates that the Coastwatch function be taken over by the Australian Defence Force. The committee will explore with these witnesses why they consider the present Coastwatch organisation is not up to the task of coastal surveillance. As well, the committee will explore the broader implications of their proposals, including whether Australia can afford a separate paramilitary force such as a coastguard.

The hearing will conclude with two providers of technology. Sonacom is a provider of submerged buoys which detect and track the sound of marine vessels and is also developing a vertical take-off, pilotless surveillance aircraft. Sonacom has suggested Australia construct an acoustic fence using a series of its sonobuoys. CEA Technologies is a provider of surveillance equipment and is proposing a system for Australia called MOSAIC. This includes various conventional and new radar, such as JORN and submerged surveillance buoys, all integrated into one system. The committee will be interested in discussing how such equipment can assist and enhance Australia's surveillance capacity.

Before swearing in witnesses, I refer members of the media who may be present at this hearing to a committee statement about the broadcasting of proceedings. In particular, I draw the media's attention to the need to fairly and accurately report the proceedings of the committee. Copies of that statement are available from secretariat staff present at this meeting.

[9.09 a.m.]

MEERE, Mr Frank McFarlane, Managing Director, Australian Fisheries Management Authority

ROHAN, Mr Geoffrey Vincent, General Manager, Operations, Australian Fisheries Management Authority

RYAN, Mr Paul James, Manager, Foreign Compliance Strategy, Australian Fisheries Management Authority

VENSLOVAS, Mr Peter Ernest, Senior Manager, Compliance, Australian Fisheries Management Authority

CHAIRMAN—Welcome. We have received your submission, for which we thank you. We understand that you have a five-page opening statement. Would you like to speak very briefly to that and, with the concurrence of my colleagues, I will ask that your statement be incorporated in *Hansard*. Is it the wish of the committee that the statement be incorporated in the transcript of evidence? There being no objection, it is so ordered.

The statement read as follows—

Mr Meere—Yes, I would like to do that. I have a couple of very brief comments to start proceedings. We welcome the opportunity to make this presentation to the committee. By way of background, I would like to provide a brief overview of the world situation facing illegal, unreported and unregulated fishing. Globally, this is becoming an increasingly serious problem for fish stocks. The United Nations Food and Agriculture Organisation estimates that one-half of the world's maritime fisheries are already fully exploited, with an additional one-sixth being overexploited. Coupled with this, we have an increasing growth in the number of world fleets and less homes, if you like, in which those fleets can legally fish.

One of the things that we are confronting, as the agency responsible for managing illegal fishing within the AFZ and also on stocks which straddle the AFZ, is the question of this increasing capacity of world fisheries' fleets to undertake illegal, unreported and unregulated fishing. We see this as a major risk to Australia's fisheries resources.

The committee would be aware from our submission that we are the Commonwealth statutory authority responsible for the sustainable use and efficient management of Commonwealth fisheries resources. We undertake management through management plans, licensing, a range of policies and compliance with those policies. We would like to think that we are a key client of Coastwatch, who undertake a range of services on our behalf. We work closely with Coastwatch, Customs and the Australian Defence Force.

I would like to finish by reading my conclusion to the opening statement, which I think encapsulates the key points that I would like to put before the committee. In summary, AFMA is supportive of the Coastwatch model, particularly as it relates to surveillance but, from a fisheries perspective, can see a number of areas where further improvements can be made to the model. AFMA believes that there is an emerging gap in the strategic assessment and fulfilment of surveillance patrol and response capabilities. As a client of such services, AFMA is less concerned with who provides those services than with the fact that they are available. Also, there is a need to plan and provide for distant water patrols and apprehension capability beyond 2003. To explain that: we have funding and resources available until 2003 to undertake sudden surveillance work in the Heard and McDonald Islands. That funding and capacity ceases in June 2003.

Australia is taking a leading role in combating illegal, unregulated and unreported fishing globally and is heavily involved in the development of an FAO international plan of action which will focus on the responsibilities of both flag and port states to address this problem. To live up to its responsibilities under these arrangements, Australia must have the physical assets and trained personnel available. AFMA requires the continued services of patrol boats which have the capacity to reach and apprehend illegal fishing vessels within the full extent of the Australian fishing zone and beyond onto the high seas.

This includes midsized vessels to patrol northern and temperate waters as well as larger vessel capability to patrol remote regions in more hostile weather conditions. Such vessels must have suitably trained crews and an armed capability to stop offending vessels—which, in some cases, are larger than the boarding vessels—and to secure safe boarding under sometimes uncooperative circumstances. These requirements are growing, with no sign that excess fishing capacity worldwide is being reduced or that blatant illegal, unreported and unregulated fishing

on world fish stocks is diminishing. In addition, ratification of the United Nations fish stock agreement has brought with it a range of new obligations which Australia must now implement.

CHAIRMAN—Do you have a memorandum of understanding with Coastwatch?

Mr Meere—We do. Early on in AFMA's creation, in June 1992, we organised and signed a memorandum of understanding and I understand that that is in the process of being updated with Coastwatch.

CHAIRMAN—Are you happy enough with that broad model—that is to say, you have to compete for services with Customs, who is the parent organisation of Coastwatch—and does that cause you some difficulties?

Mr Venslovas—From our perspective we have had fairly good service from the Coastwatch model. We feel that up to 70 per cent of our requests have been met through the Coastwatch model. We recognise that there is the issue of competing priorities that Coastwatch has to deal with from other client agencies, but from our perspective we are aware of the broader national issues. For example, when there is an issue involving illegal immigrants we recognise that resources cannot be deployed everywhere and that they are on occasion re-diverted to immigration matters as opposed to fisheries matters. We take that on board and recognise that immigration is a national priority at this point in time from the government's perspective.

CHAIRMAN—You say in page 2 of your submission:

Coastwatch should possibly have more direct operational control of relevant patrol vessels and aircraft assets. Coastwatch's independence is important in identifying priorities and ensuring that agencies receive adequate service support in terms of planning, asset deployment and the use of suitably trained personnel.

In your submission you seem to be saying all is not 100 per cent hunky-dory, if you will excuse the expression.

Mr Meere—What we are suggesting is that, as with any system, refinements can be made. With any system there are always improvements and enhancements that could be made. We are suggesting that this is an area that we think will help to improve service delivery to us as a client.

CHAIRMAN—Exactly what do you want to happen?

Mr Rohan—Coastwatch's strength is in the surveillance area. We see that as its principal role. The associated function is in the coordination of response activities. We have an interest in both aspects. We believe the model is working well in terms of surveillance and our main interest and concern that we have drawn attention to in our submission is in relation to the response capability. We note that Coastwatch, whilst it has principal control over the surveillance function, has lesser control over the procurement of assets, the nature of vessels which can be deployed for follow-up action where an infringement is observed. We have suggested in our submission that that is an area where a central coordinating, strategic authority could be enhanced.

We also draw attention to the fact that whilst the suppliers of patrol vessels—principally the RAN and more recently Customs with their recently upgraded fleet—have provided a good service within their capacity, those decisions to upgrade the fleet or the replacement decisions are largely determined by the priorities of those individual agencies. That does not necessarily meet fisheries needs. We are not directly involved in those asset replacement decisions. We point out in particular the gap emerging in relation to distant water and southern ocean patrols where we have a stopgap measure in place, but it does not have a longer term future.

CHAIRMAN—The Fremantles are due for replacement or retirement some time in the foreseeable future. Have you had any indication that you will have any role in discussions about what will replace the Fremantles?

Mr Rohan—We have been consulted by the RAN and the procurement group in particular. We are quite happy with the consultations that have taken place in relation to the Fremantle replacements because they have taken on board the sorts of capabilities that we require to conduct patrols and apprehensions and have been responsive to those.

CHAIRMAN—Are you implying that you are not happy with the decisions about the Bay craft?

Mr Rohan—No. The Bay craft fill the gap in that there is a difference in the size and capability of the vessels. What we have drawn attention to in relation to Bay craft is that they do not necessarily have the same apprehension capability as RAN vessels because we are now talking about staff training and armaments. There is a difference that needs to be recognised in terms of that capability. The other point is that those two fleets do not provide a larger vessel capable of distant water and Southern Ocean patrols.

Mr COX—What sort of vessel do you need for distant water and Southern Ocean patrols?

Mr Rohan—I can tell you what we have and what would be ideal. Currently we have on contract the *Cape Grafton*, which is a 74-metre vessel. It has a hull which is quite suitable for the weather conditions and for sustained patrolling in those areas. What is required is a vessel with similar capabilities, but ideally a vessel for that area would also have an enhanced apprehension capability. It would have a crew on board who could secure and board vessels and that would—again, I say ideally—include a helicopter capability.

Mr COX—What sorts of armaments do you think it needs?

Mr Rohan—We are not armaments specialists, but our perception and experience is that, to be taken seriously, you have to have some kind of coercion capability.

Mr COX—What is the worst situation that Fisheries officers have faced in terms of resistance from illegal fishermen?

Mr Meere—As to one spectrum in the Southern Ocean, I point to the fact that one of our commercially licensed legal vessels run by an Australian company was rammed by an illegal operator. Luckily the damage was not great—I suppose it was more of a side encounter—but it was serious enough. The incident was caught on video. Nobody was hurt, but that is the nature

of the beast that you are dealing with. These people are desperate and they will attempt to escape by those sorts of means.

In the northern sections, we have had various incidents. I might ask Mr Venslovas to comment further, but I am aware of a number things that have happened. For example, a RAN patrol vessel pursued an illegal craft virtually to the territorial sea of Indonesia without the vessel stopping. We have had feigned injuries and man-overboard claims in order to stop the apprehension—a whole range of things. The incidents have been getting progressively worse in terms of what people have been prepared to do. I will ask Mr Venslovas to comment further.

Mr Venslovas—If I may add to that, there have been several incidents through the years. For example, in the Torres Strait about 2½ years ago, I think, there was an incident involving an Indonesian fishing vessel that was attempting to abscond. It was being shadowed by a Coastwatch helicopter and objects were hurled at the helicopter, which was actually hit. We have had other incidents where Fisheries officers who boarded Indonesian vessels were threatened with knives, machetes and so forth. There has been a general trend over the last five years or so for Indonesian fishermen to become a little more aggressive in their behaviour. As Mr Meere alluded to, they are trying all sorts of ways to avoid apprehension.

Mr COX—What did they hurl objects at the helicopter with and what were the objects?

Mr Venslovas—Sinkers. The helicopter was fairly close to the vessel and I understand they hurled the objects with their arms and with slingshots.

Mr COX—Have you ever confronted fishermen who were armed with firearms?

Mr Venslovas—Not firearms, particularly not in relation to Indonesian foreign fishers, but we are aware that it is quite possible that some of these larger vessels that are fishing illegally in the subantarctic areas or the remote areas of Australia, particularly around Heard and McDonald Islands, might be carrying firearms, which they normally do as a fishing practice anyway because they use those firearms to destroy by-catch or to kill catch quickly if it is dangerous and so forth.

Mr COX—Are there any armaments carried on the fisheries boat you have currently got contracted down there?

Mr Venslovas—No.

Mr COX—Were you the agency that told Customs you would not go out on the Bay class vessels unless the Customs officers were armed?

Mr Venslovas—Our services are contracted to AFMA by state fisheries agencies, so we are actually reimbursing the state fisheries agencies who supply the officers in the field to carry out the front-end work for AFMA. It is those officers that are subject to their own government's OH&S or employees' OH&S policies, and we have had instances where those state agencies have refused to deploy officers on Customs vessels because of the lack of armament.

Mr Rohan—To add to that, we have a very clear understanding with the state agencies that we will not require them to board a foreign fishing vessel unless they are adequately supported, and that is by a crew who have the capability of securing the vessel and making it safe for them to go on board. Fisheries officers do not carry firearms—or not by and large—unless there is a state policy, and generally those policies do not provide for them to be armed, so they rely on the support of the vessel crew to secure the vessel.

Mr ST CLAIR—To carry on from what Mr Cox has raised, do you believe that the influx of drugs coming in under the guise of fishing vessels is on the increase? And, if so, do you believe that the type of fishermen that are bringing those in are vastly more violent than, for example, the normal fishermen you encounter?

Mr Meere—We are all looking at one another because I am not sure that we are capable of answering your question. I am not sure whether others might want to comment. We are certainly aware that fishing vessels are being used in illegal immigration activities. I am not aware, except in the Torres Strait—Peter might like to comment—of fishing vessels being used to a great extent in the drug trade, but I just do not have a good working knowledge to be able to comment.

Mr Venslovas—I could not comment further, no.

Mr COX—We might have to get the other agencies back and pursue that.

Mr ST CLAIR—The question that I was trying to get to is whether you believe that there is a change in the style of those using some of these fishing vessels and you are ending up with more violent people aboard those vessels, which in turn puts at risk obviously the people that are out there apprehending them.

Mr Rohan—If I may comment on that, the vessels seized in northern Australia by and large are forfeited to the Crown. That can make for some fairly desperate people in terms of their response. To a large extent, we are dealing with people who are traditional fishers and not well armed. Firearms have not been a feature of the equipment they have on board, but they do carry knives et cetera. We sense that the response that the boarding parties are getting is of increasing resistance and less respect for the Australian authorities boarding the vessels, and that is fed by desperation from the prospect of losing their vessels if they come to port. As the vessel increases in value, that desperation increases.

Mr ST CLAIR—Do you think adequate resources are being put on fisheries surveillance generally?

Mr Rohan—It is a difficult question to answer. You can always do with more, and it is a matter of weightings. We believe that we have maintained a reasonably good barrier program with the resources that we have, but clearly the fact that vessels still come through shows that it is not a complete deterrence. I speak within the context that most of the incursions come from within the northern Australian region. I note that there are many fishing vessels in Indonesian and Papua New Guinea waters, but particularly Indonesian waters, most of them Indonesian nationals, but some of them are also foreign vessels flagged or licensed by Indonesia that are

tempted to come across the line, and I believe that we have been able to contain that to a large extent.

Mr Meere—Could I comment additionally on that question. I think that there is an emerging issue. We have talked particularly about the Heard and McDonald Islands, which are the subantarctic islands that we have been talking about. Increasingly, I think there are issues that we will need to confront in terms of the southern waters of Australia. Mr Rohan's answer is very much about the northern temperate waters. Last year, at about this time, we had incursions on a straddling stock off Tasmania, which was the South Tasman Rise situation where we had three South African and one Belize registered fishing vessel fishing in an area where Australia and New Zealand had entered cooperative management arrangements for this stock, which was just outside of our fishing zone. We had no capability to really address that. We were well served by Coastwatch. They provided regular and routine flights for us in terms of monitoring what was going on and being able to identify vessels and so on. But clearly, there is an emerging issue in relation to the UN fish stock agreement and Australia's ratification of that agreement. That requires that we have some capability to deal with these other areas as well.

CHAIRMAN—On page 4, you said:

... the Government has recently implemented a number of legislative amendments aimed at strengthening and streamlining current powers relating to fisheries offences.

One of those was:

- providing for innovations such as Propeller Entrapment Devices

Can you tell us about that?

Mr Venslovas—That amendment was implemented by government—

CHAIRMAN—What is a propeller entrapment device?

Mr Venslovas—It was a device that we were developing about two years ago which involved a length of rope or cable that could be deployed in front of a fleeing fishing vessel, with the objective of fouling the propeller so that the vessel would stop without the requirement for the pursuing patrol vessel to deploy a boarding party under way. We carried out some trials in regard to how it worked at sea and so forth, with mixed results, but we have not implemented that as a standard measure to date.

CHAIRMAN—Why wouldn't you pursue developing it?

Mr Venslovas—We are still pursuing developing it. We are working closely with the RAN in developing that mechanism but it really is a matter for the RAN whether they take that up and install these devices on board their patrol vessels.

CHAIRMAN—Wouldn't it also be applicable to the Bay class?

Mr Venslovas—It possibly could have application there. I sense that the RAN may not feel comfortable using the devices because there are possible problems associated with stopping a propeller while it is under way—for example, if the propeller is stopped immediately, there is a possibility that the drive shaft could shatter within the vessel and could injure people. So there are possible problems associated with that.

Mr COX—In your submission, you say that you apprehend between 60 and 130 illegal fishing vessels a year. What proportion of those are traditional Indonesian fishing vessels and what proportion are larger vessels?

Mr Meere—I will ask Mr Venslovas to provide greater detail. There are two types of traditional vessel that we are involved with. One is a sail powered vessel. We have distributed maps and, on those maps, you will see that there is a box which is referred to as the MOU box—the memorandum of understanding box—which shows where traditional sail powered vessels are legally allowed to fish. You will see—referring to this map—that there is a list down the side of the box describing what is able to be taken and what vessels are able to go into it. We call them type II vessels.

Type II vessels are legally allowed to come into that area and to take those items shown above. They are trochus, bêche-de-mer and fin fish. But type III vessels, which are the motorised vessels, are not allowed to come into that area. We generally categorise them as type IIs and type IIIs and then the larger vessels. I will get Mr Venslovas to outline those.

Mr Venslovas—To refer back to the question on the percentage split between traditional vessels versus other types, in 1997, when our apprehension rate peaked at 133, there were 90 type III motorised, non-traditional vessels, 32 sail-powered traditional vessels, and a further 11 vessels of nationalities other than Indonesian. Most of them would have been the larger Taiwanese stern trawlers, which we apprehend in the northern parts of Australia. As the years go by, the majority of apprehensions involve motorised type III Indonesian vessels.

CHAIRMAN—What is the grey bit on the map between Timor and Australia?

Mr Meere—The Timor Gap.

Mr Rohan—Different arrangements apply within that area.

Mr ST CLAIR—What is the rough distance in kilometres or nautical miles from the land to that red broken line?

Mr Rohan—Perhaps I could describe it by saying that the distance from land to the black line is the 200 nautical mile zone. I could not say exactly what that is, but proportionally it should give you some idea that it falls within that 200-mile zone. That is what we call the provisional fisheries surveillance line: the agreed boundary between Indonesia and Australia for Fisheries purposes.

CHAIRMAN—You said that there is a periodic requirement for large vessel patrols around Christmas Island and the Cocos where the logistics associated with the apprehension of illegal fishing vessels in remote locations are greatly complicated. Why are they so complicated?

Mr Rohan—When vessels have been apprehended—it is not a frequent occurrence but the RAN has undertaken apprehensions of larger long-line vessels, generally Indonesian flagged—these vessels have been brought into Christmas or the Cocos islands. The logistical problem that remains for us is what to do with them because our basis for processing, repatriating and prosecuting is on the mainland. We have had to make arrangements to get the vessels back to Australia unless we have been able to arrive at a bonding agreement with the owners of the vessels, in which case we can release the vessels under bond and bring the nationals back to the mainland. It is an issue of distances: having patrol vessels with the capability of being in those regions over a long enough period and then being able to process them after they have been apprehended.

CHAIRMAN—You say you catch between 60 and 130 vessels a year. How many do you miss?

Mr Rohan—Perhaps I could answer that by referring you to another document, which you should have amongst your papers. That document shows the north-western area of Australia. There are figures against each of the regions, which indicate the apprehension rate against the sightings by Coastwatch. You will find that the percentages listed are relatively low compared to sightings. We have to be careful about the interpretation of these figures, because sightings could be multiple sightings over a number of days of the same vessel. It is raw data, but we have assembled it to give a pictorial and numerical indicator of where vessels are seen and what proportion are actually apprehended.

Mr COX—Do you think that Coastwatch would be able to reduce the number of sightings down to the actual number of boats, to give us a better picture?

Mr Rohan—We would like to work towards more refined figures. Coastwatch, in their recently upgraded capacity, have indicated a preparedness to work with us on that, but it is taking a little time. We are both having to upgrade our databases to deal with it.

Mr Venslovas—A lot of these sightings are the result of aircraft staying covert, which is a request that we put in actively, so that when a vessel is sighted it is not frightened away by the Coastwatch aircraft. We ask them to try and stay covert, so at that distance it may not be possible to positively identify an individual vessel from one day to the next. So there are logistical difficulties in trying to get information.

Mr COX—The Coastwatch surveillance is only going to be a sample of the activity, in any event. The figures could be somewhat worse, anyway, in terms of the total number of boats operating—is that correct?

Mr Venslovas—That is correct, yes.

CHAIRMAN—The percentages are pretty poor: 2.5 per cent, six per cent, two per cent.

Mr Meere—Yes, you could certainly make that observation. The question we would have is: how many of these are multiple sightings? That will obviously bias it to the lower end rather than the other.

CHAIRMAN—Mr Cox makes a point that the sightings are a sample of a sample, anyway. You would have to guess how good we are in determining that something is out there, let alone how many times we find it. It does not appear that we really catch very many of them.

Mr Rohan—It is all proportional to the number of sea days and the number of boats that can be deployed. That indicates that the apprehension rate would increase if we had more vessels.

Mr COX—It is pretty obvious to me that if you are a traditional Indonesian fisherman, and you are likely to lose your livelihood, you would not be fishing in Australian waters unless you thought there was a reasonable chance that you would get away with it.

Mr Rohan—I would agree. One further aspect is that it is an economic decision for them: weighing the value of the catch against the probability of being caught. Our assessment is that a lot of these vessels are undertaking shark fishing for the fins, and that has been a fairly lucrative exercise in more recent years. They can weigh up the possibility of being caught against successful trips where they are not caught, and it may still be a worthwhile risk.

Mr COX—Can you give us an indication of what it is worth to them? How much are shark fins and trochus shells worth, relative to an Indonesian fisherman's ordinary income?

Mr Venslovas—I do not have specific figures in relation to the current prices or market prices for shark fins or trochus shells, but we understand that, if an Indonesian boat can make a foray into the Australian fishing zone and escape successfully, then the investment that is directed towards that voyage is more than recouped on that first voyage, and that would include the value of the boat.

CHAIRMAN—Looking at this, there seem to be a lot of long-liners and pair trawlers—are they pretty expensive vessels?

Mr Meere—They tend to be more expensive vessels, but often very old Taiwanese or other nationality vessels that have been made redundant elsewhere have been brought into service at very low cost—not the sort of vessel that would be used by an efficient commercial operator, if I can describe it that way.

Mr ST CLAIR—Can I just get some clarification, because I am a little confused. On the map that you have there, that MOU box—that is, that area of understanding between Indonesia and Australia—seems to be a long way west of the dark grey shaded area on this other map.

Mr Rohan—That is correct. You will find there are two areas marked. One is the grey area, which is the Timor Gap and—

Mr Meere—It is not shaded; it is the dotted area further to the west on this bigger map.

Mr Rohan—Yes, the green dotted line area is the MOU area.

Mr ST CLAIR—Thank you. I appreciate that.

CHAIRMAN—Thank you very much for your submission. We have already incorporated your opening address and we will also include your maps as part of today's proceedings. Is it the wish of the committee that the maps be incorporated in the transcript of evidence? There being no objection, it is so ordered.

The maps read as follows —

CHAIRMAN—We thank you once again. If we have further questions, you will not mind if we send you letters, will you?

Mr Meere—Not at all.

CHAIRMAN—We might talk to you again briefly before we conclude the inquiry.

Mr Meere—That is fine. Thank you, Chairman.

[9.49 a.m.]

BARRELL, Ms Rowena, General Manager, AusSAR, Australian Maritime Safety Authority

DAVIDSON, Mr Clive, Chief Executive, Australian Maritime Safety Authority

CHAIRMAN—Welcome. We thank you for your submission. I have a whole heap of questions about it. I understand you have a brief opening statement that you would like to make.

Mr Davidson—With your indulgence, Chairman, I will read it out very quickly.

CHAIRMAN—As quickly as possible, please.

Mr Davidson—AMSA's submission describes our interaction with Coastwatch as a minor use client of its services compared to other government agencies appearing before this committee. There are three main areas of AMSA's operations that involve Coastwatch. The first is search and rescue operations. Since mid-1997, AMSA has been responsible for coordination of search and rescue operations for both maritime and aviation industries. While in our experience the usual practice overseas is for separate search and rescue bodies for the maritime and aviation sectors, the joint arrangement in Australia is, in our estimation, working very effectively.

AMSA's business unit, AusSAR, employs 56 staff. It operates the 24-hour Rescue Coordination Centre over the internationally agreed Australian search and rescue region. This covers some 53 million square kilometres, or one-tenth of the earth's surface, and includes the east Indian, south-west Pacific and Southern oceans.

As AusSAR has no dedicated resources, it engages selected general aviation operators that have been trained in search and rescue techniques. If the task is beyond the capabilities of civilian resources, Coastwatch may be asked to provide assets on an availability basis only. AMSA does not bid for resources to be included in Coastwatch's strategic flight programs because of the unpredictable nature of search and rescue requirements. As our submission indicates, Coastwatch aircraft are highly regarded for their search capabilities and there are good personal relationships and common understanding of purpose between AusSAR and Coastwatch.

Our second area of involvement with Coastwatch is the provision of information about ship sourced pollution. AMSA has a range of legislative powers for regulating shipping operations to protect the marine environment. It undertakes the investigation of pollution incidents and, where appropriate, instigates or assists state and territory authorities in the prosecution of offenders.

Coastwatch routine patrols report suspected pollution incidents for investigation by AMSA or state and territory authorities. Coastwatch also provides photographic evidence, and their observers make formal statements about pollution incidents that are used in evidence to support

prosecutions. Coastwatch can task Customs or Defence Force vessels to collect oil samples for expert chemical analysis and comparison with samples taken from vessels transiting a particular region.

AMSA also manages the National Plan, a nationally integrated framework involving state and territory governments and the shipping and oil industries for effective response to marine pollution incidents. AMSA coordinates pollution surveillance and receives reports from a number of sources, including Coastwatch, on pollution sightings. The AMSA oil spill database provides statistics for strategic planning, risk assessment and measurement of the effectiveness of pollution prevention measures.

Finally, the third area of interaction concerns Coastwatch's input to AMSA's marine safety functions. AMSA is responsible for the provision of the national network of aids to navigation and navigation systems. It maintains Australia's maritime distress and safety communications network, which broadcasts safety and navigation information to ships at sea. Coastwatch provides reports to AMSA on a wide range of matters, including faults in particular aids to navigation, hazards to navigation, and vessels, aircraft or persons in distress or difficulty. AMSA's submission indicates support for the recommendations in the Auditor-General's report on Coastwatch that are relevant to AMSA's experience.

Late last year AMSA finalised its service level agreement with the Australian Customs Service and a copy of that document is attached to our submission. The agreement includes schedule C formalising arrangements for the release of Coastwatch assets to task in search and rescue operations or involvement in reporting and monitoring marine pollution incidents.

We appreciate the measures being taken by Coastwatch to improve its reporting to client agencies. The timely provision of reports, photographs and videos is important to AMSA in pursuing prosecutions for marine pollution, distributing safety information and providing input to strategic planning for response to oil spills.

We value our participation in the Coastwatch Operations and Program Advisory Committee and support the refocusing of its work on strategic policy issues. Overall, AMSA agrees with the views already expressed by several client agencies that, in our experience, Coastwatch is an effective coordination body in relation to its resources and the demands of the Australian surveillance environment. Thank you, Chairman.

CHAIRMAN—Thank you. One of the issues that has come up in front of this committee already and, more than once, is the question of whether or not search and rescue ought to be integrated into Coastwatch activities. Can you comment?

Mr Davidson—I can observe that the heritage was a common heritage. In the 1980s the Coastwatch operations were linked with the marine rescue coordination activity. The aviation search and rescue function was separate at that stage. There was a review at that time and the separation of the functions was the result of that activity. From the way we operate with the focus on search and rescue it allows our people to become clearly focused on the task. With the combination of both the maritime and aviation skills now within our centre, we are a very strong focus group. Beyond that it is speculative as to what might enhance or not a major combination.

CHAIRMAN—You do not really control any assets?

Mr Davidson—That is correct, we have no control over assets. We do not own assets, we contract it all.

CHAIRMAN—But largely you use the Defence Force?

Ms Barrell—We use the Defence Force and Coastwatch assets only when a civilian asset is unable to complete the task for us. The Defence Force clearly gets involved with long-range, offshore incidents.

CHAIRMAN—Bullimore, et cetera.

Ms Barrell—Correct.

CHAIRMAN—On page 7 of your submission you said:

AusSAR is involved with the ship reporting systems, AUSREP and REEFREP. AUSREP is a voluntary reporting system enhancing the safety of participating ships which report their position every 24 hours.

Would that not be less expensive if that was coordinated through Coastwatch's national surveillance centre?

Ms Barrell—The Australian ship reporting system was established under the International Maritime Organisation's search and rescue convention. It is principally there for a search and rescue purpose—that is, to try and minimise the amount of time that might be lost between a vessel meeting with some disaster and the search and rescue authorities knowing about it.

The other important aspect of the Australian ship reporting system is that it gives us a number of potential vessels that might be able to assist in the event of another vessel being in distress at sea. It is used for that purpose. The ships report their position, course and speed to AusSAR every 24 hours. They do that through our coast radio network, and with the implementation of newer communications technologies we are able to interrogate the ship automatically so that the ship itself does not have to spend any time submitting a report. It is compulsory for some ships to report their positions in accordance with the Navigation Act. Other ships do it on a voluntary basis. We have a very high voluntary participation rate from overseas vessels that are obviously looking for some safety net in their safe travel through the search and rescue region.

CHAIRMAN—Look at the totality of vessels that are out there somewhere. There is a whole range of reasons why it is desirable for us to know who is where. One of those reasons is perhaps illegal immigrants and another is the potential for drug trafficking and for the importation or exportation of species, banned substances or things that could cause disease. There is also the potential for ships to pollute or to get into difficulty with weather or whatever and need assistance. There is a whole range of reasons. Yet we seem to have a diverse range of organisations looking at the same ships. Is that practical?

Mr Davidson—In relation to large international ships that operate commercially within our search and rescue region, the AUSREP reporting system and the material on that is available to

a range of users. Its primary purpose is clearly safety of life at sea. Our undertaking to the International Maritime Organisation is to use that data for safety of life at sea activities. In certain circumstances we will pass the data to other agencies that require it for their own purposes. We believe it will affect the level of voluntary participation if that information is blatantly misused and abused. However, to date, I do not think there is any risk in that area.

CHAIRMAN—Do you routinely and automatically feed known locations of known ships into Coastwatch?

Mr Davidson—Yes. There is a direct feed of all the data straight to Coastwatch.

CHAIRMAN—There is not much sense in Jindalee finding a ship, you knowing which ship it is yet those two pieces of information not being matched up.

Mr Davidson—We do not try to correlate the data. We provide information on ship reporting every 24 hours. The ship will report its location and intended passage so there is an understanding of where it is going. One can then interpolate where the ship is likely to be within the next 24 hours before it reports the next time.

CHAIRMAN—You say in your report that, in practice, you do not ask Coastwatch to undertake dedicated flights to specifically gather evidence about marine pollution. How do you gather that information?

Mr Davidson—We get sightings. As Coastwatch aircraft—which are basically continuing with their normal routine for other purposes—pass ships, they are trained to observe where there is potential pollution. If they believe that is the case, they will overfly the area, take photographs and document it. We do not have a practice of deliberately targeting any particular vessels by tasking Coastwatch to pursue or overfly selected vessels for pollution incidents.

Mr COX—Is that because you do not have an intelligence-gathering capability to know who might be polluting or because that activity is given a low priority?

Mr Davidson—I think it is fair to say that, generally speaking, the level of pollution incidents for the number of vessels transiting the coast—there are something like 20,000 ship movements into and out of Australia per annum—is very low. Our experience is that a very low percentage of those would be actually engaged in pollution activities, or would even attempt to pollute. There are other mechanisms based on the ship management systems that we police quite rigorously through our port state control regime. We board and inspect ships' logbooks, their various activities and so on. From that we can ascertain whether the ships are conforming with international requirements.

Mr COX—Are the polluters generally ships from flag-of-convenience nations?

Mr Davidson—I am afraid that I do not have a direct correlation of that data so I cannot answer that question directly.

Mr COX—Can you give the committee some detailed information about that?

Mr Davidson—We can provide you with specific details of ships that have been prosecuted for pollution, which could go to the information that you have requested.

Mr COX—Would that include how they were detected?

Mr Davidson—Yes.

Mr COX—You are responsible for maritime safety in the immediate vicinity of offshore oil installations. How many incursions are there into those waters and what is the nature of those incursions?

Mr Davidson—Sorry, I am not sure that I have quite captured the question you are asking.

Mr COX—In your submission, one of your responsibilities is to enforce compliance with—

Mr Davidson—Are you referring to the top of page 8?

Mr COX—I have lost the page.

CHAIRMAN—In the meantime, I will ask you another question. You say that you support this recommendation of the Auditor-General's report:

... that Coastwatch process Post Flight reports (PFRs), photographs and videos in a timely fashion so they can be readily available for use by client agencies.

I would assume—you having made the comment—that they are not being processed in a timely manner now.

Mr Davidson—Our interest is in ensuring that they are all consistently produced in a predictably timely fashion so that, if there are pollution incidents, we are able to take action before the vessel departs our waters. We would not necessarily be aware at the moment of the timeliness or otherwise of those reports. But clearly, it is in our interest—

CHAIRMAN—Why wouldn't you know whether they are timely or not?

Mr Davidson—I understand that there have been some delays in some of them and we obviously—

CHAIRMAN—That sounds a bit more like it.

Mr Davidson—Obviously, we would like to have them as soon as possible because of the risk of the vessel departing Australian waters and us having no particular action that would be able to be taken.

CHAIRMAN—I do not specifically recall that bit out of the auditor's report but it has been a long time since I read it. In any case, what we are doing is following up on the A-G's report and, if he has criticised Coastwatch and said that you do not get the information quickly

enough, it is part of our task to try and follow up and make sure that these sorts of things happen, from parliament's viewpoint anyway. It does assist us if you tell us how bad things are.

Mr Davidson—I would not want to portray them as bad. But, clearly, it is in our interest, if we are to take action for pollution incidents, to have them in as timely a fashion as possible so that we can do the forensic work in order to secure a successful prosecution.

CHAIRMAN—It would not do you much good to have a vessel dump a bilge today that was full of oil and you get the photographs of it next month.

Mr Davidson—Precisely.

CHAIRMAN—By which time it is all the way around the world again.

Mr Davidson—Yes.

Mr COX—Your submission says that one of AMSA's responsibilities is:

... the maintenance of the 500 metre mandatory safety zone around offshore oil production platforms, Floating Production Storage and Offloading facilities (FPSOs) and offshore drilling rigs and the designated 'area to be avoided' around the Bass Strait offshore oil production platforms.

Roughly, from memory, that is more than 500 metres. Are there many incursions into those zones? Are they identified by Coastwatch or are they identified by the operators of the facilities themselves? Do you wind up taking action against people that do make those incursions?

Mr Davidson—I am not aware of any incursions that have been reported in my time with AMSA in the last two and a bit years. Typically, these would be reported and handled by the FPSO or the rigs themselves. They often have radar and similar sorts of devices. Yes, we would prosecute if somebody breached those exclusion zones.

Mr COX—It is not something that requires any particular assets. The other thing that we have had some other evidence on is the possibility of combining the search and rescue function with Coastwatch if a coastguard was going to be established. Since you contract out all of your search activities, can you see any particular difficulties with transferring the control of those sorts of operations to a coastguard or a Coastwatch-like operation?

Mr Davidson—Our situation is quite manifestly different from the Coastwatch activity. Coastwatch has direct control over its assets; it tasks them to do surveillance activities. Within the search and rescue area we have incidents that arise at any time of the day or night and, because of the aviation aspects of it, of course, we have the requirement to be able to respond across the continent of Australia as well. So the nature of the assets that we will task will depend on availability, the circumstances that arise and a whole range of other factors. Indeed, with respect to most of our more recent activities, the search aspect has largely been taken out of our function by the successful use of EPIRBs. They are a satellite based radio communication distress beacon carried by most small craft operating two nautical miles or so beyond the shoreline, and if they get into trouble they will flick the switch. That is operated by AMSA. We are part of the COSPAS/SARSAT arrangements, which is the international body

that maintains and operates the constellation of satellites that receive these signals, and we are targeting quite a small target these days when we go out on a search.

With respect to the nature of our operations, we are often looking for an asset that can do recovery or rescue. Increasingly, helicopters with winch capability are proving to be very useful assets. If we have got a long-range activity, a long-range search—not Southern Ocean style; near water but longer range—clearly the Coastwatch assets have a very particular advantage. From our perspective, the nature of the tasks is quite different at the moment. We operate the school; we train Defence, our own people, civil resources, SES people and the Coastwatch people on surveillance techniques for search and rescue activities.

Mr COX—Most of your search and rescue activities are in areas other than the areas that Coastwatch presently operate in—around the southern extremities of Australia, for example?

Ms Barrell—Most of our search and rescue activity, in fact, is focused on the populated areas of Australia, around the capital cities and the east coast of Australia. Far North Queensland through to South Australia is really where most of our search and rescue activity occurs. We do, obviously, have the isolated long-range ones deep in the Southern Ocean, but it is principally reasonably close to shore, within the 200-mile EEZ and the populated areas.

CHAIRMAN—How many search and rescue operations a year are there?

Ms Barrell—Over the last three years, since the establishment of Australian Search and Rescue, which is the combined maritime and aviation search and rescue facility, the number of searches have varied. In 1997-98, there were 382; in 1998-99, there were 447; and in 1999-2000, there were 420.

CHAIRMAN—Wow!

Mr COX—What proportion of those were onshore and what proportion were offshore?

Ms Barrell—I do not have those figures at hand; also the definition of offshore and onshore would be helpful.

Mr COX—Can you take that on notice and give us some figures later?

CHAIRMAN—On your funding, in the background section of your submission you state:

The Marine Navigation Levy funds maintenance and management of Australia's navigational aids network;

The Regulatory Functions Levy funds the regulation and surveillance of the shipping industry ...

The Protection of the Sea Levy funds the operation of the National Plan.

What funds search and rescue?

Mr Davidson—We have a government budget allocation to fund the search and rescue function. It is a CSO direct from government. It is a budget funded item.

CHAIRMAN—Is it a fixed line item? What happens when you run out of money?

Senator HOGG—You do not get rescued.

Mr Davidson—There is a very simple mechanism. We have an agreement with the Department of Finance, under the Advance to the Minister for Finance. I think the allocation annually is about \$3 million in what we call ‘live SAR’ costs, which is where we contract in resources. If that is exceeded in a particular year, there is an automatic allocation. At no stage would any SAR officer in the centre even bring to his mind a question of whether he could afford or not afford a particular live SAR.

CHAIRMAN—Am I correct that in most of your live operations—in terms of search and rescue—you literally receive the information, you know where the problem is and you ring a contractor who, in your view, is best placed to assist, and you ask the contractor to proceed to the site. Is that correct?

Mr Davidson—Essentially. We have contractors who are already in a relationship with AusSAR and AMSA. Depending on who they are, the relationship is that there may be training and surveillance, depending on the nature of their aircraft; they may have ‘air droppable supplies’, so that they may be able to drop equipment in the event of the need for that; or if it is a helicopter operation, we know what their capabilities are. Again, these are all opportunity aircraft, so we ring up and say, ‘Do you have assets available to do this task?’ We have predetermined rates so we know how much it is going to cost at the end of the process.

CHAIRMAN—In the case of the deep Southern Ocean experience, it has to be Navy that does it. You do not pay for that service.

Mr Davidson—That is correct—we do not pay for Navy’s contribution.

CHAIRMAN—Are Navy, Air Force or anybody else used very much in your operations or do you generally use contractors?

Ms Barrell—We very much use private contractors for the bulk of our search and rescue activities. When it comes to the long-range offshore operations, we will engage the Navy. We will also have the Navy involved in incidents like the Sydney to Hobart yacht race of 1999, where we were looking for helicopters of some capability and, in fact, helicopters that were able to assist us in any way in that event. The naval helicopters were involved in that situation as well. It is generally fairly rare for defence forces to be involved in our search and rescue effort.

CHAIRMAN—Where is your national operations coordination centre or whatever it is called?

Mr Davidson—It is here in Canberra.

CHAIRMAN—Thank you very much for your submission and for answering our questions. If we have anything further to ask, you will not mind responding in writing?

Mr Davidson—Absolutely not.

[10.24 a.m.]

HUTCHENS, Mr Sean Michael, Acting Assistant Director, Ocean Protection and International Section, Marine and Water Division, Environment Australia

KAY, Dr David Graham, Assistant Secretary, Marine Conservation Branch, Environment Australia

TAYLOR, Mr Peter, Director, Marine Protected Areas (West), Marine and Water Division, Environment Australia

CHAIRMAN—Welcome, gentlemen. We have received your report. Do you have a brief opening statement or do we proceed to questions?

Dr Kay—I do not have an opening statement, but I would like to remind the committee that we are only representing part of Environment Australia. You are taking evidence from the Australian Antarctic Division at a hearing in Melbourne next month that will cover most of the Southern Ocean issues, so I would rather not take questions on those issues today.

CHAIRMAN—Fair enough. In your submission, in the overview, you talked about the role and expectations of Coastwatch. In listing the tasks, you say:

... the following tasks which should be incorporated into the role of Coastwatch.

I assume these are semi-responsibilities of your agency. Is there any conflict or duplication of effort between Environment Australia and the Australian Marine Safety Authority, whom we just talked to?

Dr Kay—I do not believe there is any significant duplication of effort. There is a duplication of interest, and I think that is probably in the area of marine pollution incidents. The Maritime Safety Authority indicated their responsibilities. Environment Australia does have certain responsibilities. We administer the sea dumping legislation and have an interest in that issue. We work with the Maritime Safety Agency providing environmental advice on oil spill issues, so we have an interest in receiving the same sort of information that is provided to them in the event of those sorts of incidents being reported.

CHAIRMAN—Does that include bilge water problems too?

Dr Kay—We would have an interest in knowing what is going on in all sorts of marine pollution issues. Bilge water is, shall we say, a particular concern in terms of introduced marine pests, but most of the concern is with water exchanged in ports rather than at sea.

CHAIRMAN—You do not have an interest once it is in port?

Dr Kay—We do but the prime responsibility is with the Australian Quarantine and Inspection Service. AQIS have put out guidelines on acceptable practice for handling ballast water.

CHAIRMAN—In your submission, you say:

EA Marine Group (Marine Species Section) currently receives faxed reports of wildlife sightings on an ad hoc basis, which must then need to be entered into a database. It would be more helpful to EA (and presumably other client agencies) if Coastwatch could report back on a regular basis against client tasking requests, by sector and by platform (air/sea) for each month.

It reads to us, or it did to me, as if you are not being currently well served by Coastwatch.

Dr Kay—The information we get is not—

CHAIRMAN—You do not have to be diplomatic.

Dr Kay—No, not in a readily handled format. Most of it comes through to us in a fax, which means it needs to be re-entered. There is no consolidation, I suppose. The thinking behind those comments is that we really do not need all the wildlife sightings instantly, and a consolidated monthly report on whale sightings, or whatever, would meet our needs. If it came through in electronic format, it could be readily incorporated into a database without someone having to re-key the information. We feel there are better ways Coastwatch could look at delivering it.

I suppose one of the things that prompted us in that was an incident last year, if I can give you a quick anecdote, where we received a report in late November, early December, that the Japanese whaling fleet was transiting through our economic zone off Heard Island. The report came through by email from a commercial fishing vessel down there. It came with pictures taken from a digital camera, so that within a matter of hours we had an email report plus digital pictures, which we could use. That is not the service we get from the government agencies, from Coastwatch. We would think there is that capacity, and it is not a particularly expensive system to introduce.

CHAIRMAN—Do you have a memorandum of understanding with Coastwatch?

Dr Kay—We do not at present, but negotiations are commencing. The proposal for a service level agreement rather than a memorandum of understanding was put to us. Our relationship with Coastwatch and Customs has changed quite radically in the last nine months. We have also had some fairly major changes to our legislation. Our view would be that we would need to get through that before we could properly define what it was we wanted under the new arrangements. The significant change is that, up until December last year, Environment Australia contracted for a vessel in the nature reserve at Ashmore Reef to suit our purposes and to enforce our legislation. As a result of government decisions, that role has now been taken by Customs vessels, and so we have a whole new set of requirements. Documenting those is something we are now doing.

CHAIRMAN—Do you intend to include issues like the digital camera and email in your negotiations?

Dr Kay—We would certainly include them in the negotiations, yes

CHAIRMAN—You state:

The current Planning Advisory Sub-Committee processes are effective and efficient. The absence of some client agencies from this forum makes comparison of priorities between the tasks of the various agencies difficult.

Which ones are missing?

Dr Kay—The ANOA report indicated that the Department of Immigration and Multicultural Affairs had not been active in the committee process. I am reading through that report. It reflects our experience that we, Environment Australia; the fisheries agency, AFMA; the Great Barrier Reef Marine Park Authority; and one or two others are regular participants but that others are intermittent participants.

CHAIRMAN—Are you trying to tell us that Coastwatch, while under the control of Customs, is more influenced by their requirements than by anybody else in terms of tasking?

Dr Kay—No, I do not think that is the point we are trying to make. The intention is for Coastwatch to provide a whole-of-government service, and unless there is a commitment from all departments to be engaged in the planning and deliberations, it has difficulties meeting that aim. In our tasking of Coastwatch, we have generally been satisfied. We do not always get what we ask for and sometimes that causes us expense that we would rather have avoided. A lot of planning goes into the patrolling, monitoring and research in some of our remote nature reserves and parks. If, for some reason, a higher priority task comes along and we are ‘bumped off’ the vessel, all that expense and planning is for nought. It can be significant in long-term monitoring programs where missing a particular data set casts doubt on the legitimacy of the whole program.

CHAIRMAN—Do you see a more effective way to allocate tasking, to decide on priorities, other than the current procedures? I am not being argumentative. I am asking that in the sense of whether there is some way we can move forward.

Dr Kay—We do not have any particular suggestion. It is an issue that needs to be kept under review. I suppose we are highlighting it in case someone else has suggestions.

CHAIRMAN—Clearly, regardless of whether we have a coastwatch, a coastguard, or whatever and whoever runs the organisation and coordinates the activities, you will always have an interest but never be a major player in the activities. Is that a fair statement?

Dr Kay—That is fair.

CHAIRMAN—So, as a minority player, you need some mechanism in order to give you a bit more clout in the decision making process. Is that fair?

Dr Kay—I would not use the word ‘clout’. Perhaps a bit more certainly.

Mr Taylor—I think this is right. Because we have expanded our marine protected area responsibilities around the coastline, the issue for us is, possibly through the development of a service level agreement, a more strategic approach to those taskings. We have got good service in that regard and we cannot expect to have all our needs met. We get a very high proportion of them met and we also get other information, as David has indicated, through the process. We

also get invitations to participate with Coastwatch flights which give us an extra opportunity to observe and be involved in other parts of the program. So, in answer to your question, through the service level agreement we have a good opportunity to develop a set of tasking arrangements that could meet a fairly high proportion of our needs.

CHAIRMAN—If we were to recommend, for instance, a purchaser-provider model, would that be attractive to you? Would that help solve some of your problems?

Dr Kay—I am not sure it would. As you point out, many of our tasking requirements would never be a high priority. An example would be the marine national nature reserve at Elizabeth and Middleton reefs which is about 300 miles off Brisbane but a bit further south—it is north of Lord Howe. There is a very low level of risk there but we do need to have the occasional overflight. It is much easier to have the request to Coastwatch: you provide, on average, four flights a year, and they can be at your discretion, almost at random, and fitted in as best you can with everybody else's surveillance requirements. I am not sure how us purchasing that service would improve matters. If we get three flights in a year we would still be happy; if they did five, we would also be quite comfortable. But I am not sure that us needing to pay for it would improve the situation.

Mr COX—When you task both flights, what do you want them to look for?

Dr Kay—Basically, whether there is any evidence of vessels in the area, particularly any commercial fishing vessels and whether there is any sign of any disturbance there.

Mr COX—With respect to the more environmental work that you occasionally put people on vessels for and occasionally they are not able to be accommodated, what are the specific sorts of projects that they have embarked on?

Dr Kay—The example I had in mind was the two nature reserves in the Coral Sea Island territory, way out beyond the Great Barrier Reef. We do a monitoring program of turtle breeding in those reserves and a program of breeding with a number of bird species which are not in the threatened or endangered category but with the rarer birds. If we miss a data set, our confidence in the whole long-term monitoring of those activities is reduced. I should point out that it is not always other tasking that causes the problem. Last year, at the time that our patrol to those reserves was programmed, a cyclone came through and there was no possibility of doing it. We face those sorts of issues in any event in those sorts of areas.

VICE-CHAIR (Mr Cox)—Did you want to ask about wildlife?

Senator HOGG—No. I do want to ask a couple of questions. You mentioned before that you do not always get what you ask for. You said it costs the organisation. Is that in terms of money or the data that you have just been referring to? If it is in terms of money, how significant is it in terms of your budget allocation?

Dr Kay—There is obviously a cost in positioning a research team. I will use the Coral Sea example. We have to get people up to Cairns equipped to go out on the boat from Cairns. There is a time and cost in getting them there. There is a cost in organising the logistics to get our

people to the point where they can go. I do not know whether that is a particularly significant component of our total budget. There is a dollar cost to us as well as an opportunity cost.

Senator HOGG—You mentioned that your relationship changed. You described how part of the relationship had changed. What were the other aspects of the change in the relationship? Were they administrative changes?

Dr Kay—There were administrative changes in reorganising within the environment department and shifts in responsibilities for different issues.

Senator HOGG—That is because of your own internal changes, though.

Dr Kay—Yes. There were changes that Peter mentioned where our estate: the number of marine protected areas we have responsibility for has increased significantly. There have been five new declarations within the last two years and another one on the horizon. We have gone from seven to 12, basically doubling our area of responsibility and changing the sorts of activities and priorities that we have. The new reserves have a different nature, meaning we have to reprioritise our activities as well. The other one is the change in the environment legislation with the Environment Protection and Biodiversity Conservation Act coming into force in July this year. There is a broad range of compliance and enforcement issues across the environment portfolio which impact on our relationship with a number of other government departments.

Senator HOGG—Right. You have now given effect to all the changes that needed to be made there?

Dr Kay—Certainly all the major ones are now behind us.

Senator HOGG—The other question I have is one that has not really been posed a great deal but I have raised it within the committee, and that is that when Coastwatch has been thought of and referred to thus far in the proceedings what has been looked at is what has been coming into the country. That seems to be our main focus, and I can understand that. I am just wondering if there is a role that Coastwatch plays for your organisation in terms of what might leave the country. We have not heard anything of that to this stage. I do not know what it would be; but, for example, with another agency it might be looking at tracking illegal fauna exporters or something such as that. Is there a role that Coastwatch plays for things that might leave the country rather than come into the country?

Dr Kay—I cannot think of one. We do have existing memorandum of understanding between the department and Customs on enforcement of the Wildlife Protection (Regulation of Exports and Imports) Act and also on the hazardous wastes legislation where, as the border control, they are empowered under our legislation to control those sorts of activities. The experience in the wildlife trade area is that the concern is much more about what may come in. There is a general view that we have a reasonable level of control over what is going out, and what is going out is not likely to be detectable by the Coastwatch system; it is much more likely to be detected by other arms of Customs.

Senator HOGG—Okay. I just wanted to find out if there was a function on the outward journey rather than the inward journey. There does not seem to be one for your agency. That is fine.

VICE-CHAIR—On pages 3 and 4 you advise that, under various pieces of legislation, Customs officers will become ex officio inspectors and wardens. Which agency pays for the cost of training of those Customs officers?

Mr Hutchens—Under the Environment Protection (Sea Dumping) Act, recent amendments were passed to implement the protocol but also to substantially revise the offence penalty and enforcement provisions, one of which was to include Customs officers as ex officio inspectors. At the time of the development of those amendments it was agreed between departments that an MOU would be developed to govern that, amongst other issues. Those amendments have only recently come into place and that is something that we will be looking at in implementing the revised framework in the future. To answer it directly, there is nothing in respect of sea dumping at present that governs that.

Dr Kay—Also, under the Environment Protection and Biodiversity Conservation Act there are a number of roles which selected Customs officers will play. I do not think we have this yet but the intention is that there will be Customs staff on the vessel at Ashmore National Nature Reserve who will be appointed as wardens under the parks and reserves provisions of that act so that they can take enforcement action, should that be necessary.

In terms of paying, certainly in the parks and wildlife area where we are looking for another agency—Commonwealth or state—to act on our behalf our normal practice is that we expect that normal Commonwealth law enforcement training up to the required standard will be part of the other organisation's responsibility. We usually incorporate a particular training session provided by us on the specific aspects of our legislation which we want them to take responsibility for.

Mr ST CLAIR—I have a question that I am not sure whether you have canvassed. If you have, please tell me. Do you believe Australia needs an integrated coastguard per se?

Dr Kay—I do not think the department has a view on that.

Mr ST CLAIR—Do you want to offer a view?

Dr Kay—I would rather not.

VICE-CHAIRMAN—The only other thing that I wanted to ask you about is the whaling industry and whether illegal whaling activity in Australian zones is an issue, has been an issue or is likely to become an issue?

Dr Kay—The answer to all of those questions is no. The concern is not with whaling so much. Our concern these days is much more with the regulation of the whale watching industry, which is a fairly significant growth industry. We want to ensure that that industry does not impact adversely on the resource that supports it.

VICE-CHAIR—Is there no real role for Coastwatch in that process?

Dr Kay—I do not think there is a significant role. Most of the industry operates fairly close to the coastline and centres of population. It is not a remote activity—the tourist numbers are in the big centres—so it is reasonably amenable to compliance and enforcement activity on a local basis.

Mr ST CLAIR—Have they developed a code of practice in that area?

Dr Kay—Yes. The relevant ministerial council, the Australia and New Zealand Environment and Conservation Council, fairly recently—in the last 12 months—approved a set of national guidelines for whale watching and related industries. The expectation is that each jurisdiction will put that in place through its own legislation.

VICE-CHAIR—Thank you very much. That was most helpful.

Proceedings suspended from 10.53 a.m. to 11.13 a.m.

SIMMONS, Mr John Francis (Private capacity)

VICE-CHAIR—I now welcome Mr Simmons to today's hearing. We have received a written submission to this inquiry from you. Do you wish to make a short statement before we ask you questions?

Mr Simmons—Thank you, Mr Chairman; I will make a few introductory comments. When I was a lot younger, an issue arose about the location of a Customs vessel. I developed a recommendation which was put to the minister. The minister ignored the recommendation and made what was obviously a political decision. When I was told of the decision, I ranted and raved about him doing that instead of going for the technically superior recommendation. When I paused for breath, my boss called me into his office. He put a fatherly hand on my shoulder and told me to desist. He then said to me, 'John, the minister is entitled to make political decisions. He puts his job on the line every three years; you don't.' He then pointed out some of the political facts of life to me, and he concluded by telling me that my job was to give my best advice, irrespective of political persuasion or anything, and to argue for it as strongly as I could because I believed it was the best advice. But, once the decision was made, it was then my job to do my best to make it work no matter how much I disagreed with it. He then dismissed me. I have related that incident many times, because it is the best advice I was ever given about being a public servant. I have told you this, because that is the approach I took in writing my submission, it is the approach I take when I am dealing with governments now and the approach I take before this committee today.

With respect to my submission, I have been a keen observer of Coastwatch and its predecessor since early 1973. I have also been one of the customs officers involved in its evolution. I have not come here as a Brutus. On the contrary, I can say that Customs has done a far better job of coastal protection than any of the organisations that have tried to do it before. They had some difficulties, one must admit. Having said that, I feel obliged to explain why I am now recommending an agency divorced from Customs. It pains me greatly—and I really mean that—that I cannot say that I think the arrangements are fine. The fact is that the time has come to consolidate our civilian efforts in coastal protection into one agency. The only reason I do not recommend that it be a division of Customs is that I am convinced that it would not be acceptable to other government departments and agencies.

To conclude these comments I have a request for the committee. With due respect, I ask that those of you who do not have a deep voice speak directly into the microphone, because I have a lot of industrial deafness from listening to too many marine diesel engines. Thank you.

VICE-CHAIR—What experience have you had with other agencies not being satisfied with the service that Coastwatch under a Customs service management is providing them?

Mr Simmons—I think that you have picked up on it yourself. From the questions you have asked the various departments about the arms-length business and those sorts of things, you have obviously been reading between the lines of the submissions. And you have no doubt noticed, from the body language of the people answering you, that they are ambivalent, at best. You were not astray in picking up those little subtleties. They are there, and they have been

there all the time. It is the reason why some of the other agencies were unsuccessful. I can recall when the coastal protection unit was established with the federal police. All the departments were saying, 'Yes, you beaut. You consolidate this, thanks very much; you put it all together. But, hey, you're not having any of our power or prerogatives. We're not going to trust you to make our decisions for us.' The reason quite legitimately is that they are responsible for administering their legislation. They are responsible for the resources that they have got. Can you blame them? It is the same when you ask them about memoranda of understanding. You have asked a number of people about where they are. They are pretty slow, some of them, coming to them and rewriting them. Please do not be critical of them for that; they are being good public servants. They are being very careful before they give some of their prerogatives to another agency, because they still have the responsibilities. They are just being careful, and so they should be. But if you keep doing that, you end up just moving very slowly along the track that we have been going along for 30 years. It has been getting better incrementally. If you want to keep going that way, that is fine. If you want to make a quantitative leap, then take the responsibility from them and give it to one agency so that they do not have to worry about it anymore.

Mr ST CLAIR—Which one?

Mr Simmons—As I see it, the committee has a variety of ways of handling this. There is a hierarchy—if I may refer to my notes—of expense that you can go to in stepping through this. You can go with Coastwatch and the Customs submission: a gradual improvement. You can create a central service agency—I would call it the 'coastal control service', but you might call it some other agency. You could put it in Customs—as I have said, I do not think it would be acceptable to other agencies; they would see it as a power grab and that sort of thing. You could create an agency co-located with Customs. That would not be all that expensive because Customs has a very wide range of facilities around the country and the infrastructure is there.

You could put it with the Australian Federal Police—at least that would solve Commissioner Palmer's problem about creating another law enforcement agency; he would have to put his money where his mouth is if you did that. You could put it with the Department of Transport—you have been discussing that sort of issue with AMSA this morning. The issue I see there is that the infrastructure expenses would start to go up a bit and it is likely that the perception would be that it was a safety organisation rather than a law enforcement organisation—it is a matter of perception as to what you want there. You could put it with Defence, like Emergency Management Australia, but your costs would really start to go up once you started to do that. It is just the way Defence does things: it would be more expensive and there would be quite a lot of infrastructure to set up. Your next option is to go for a stand-alone agency with all the costs, which we do not want to bear thinking about, of setting it up. Or there is the real Rolls Royce, No. 8: create a Commonwealth-state-territory organisation that does the lot, with not just the associated infrastructure costs but all the administrative headaches.

I have said that I think you need ability at the lower end of that hierarchy. The Customs submission at S205 shows that in 1998-1999 there were 38 illegal entry vessels and only three landed prior to detection. In 1999-2000 there were 73 illegal entry vessels and only two landed prior to detection. In both cases they were detected promptly after landing and all the people on board were apprehended. DIMA told the committee that it has a 100 per cent record for establishing the method of entry. How much more money do you really want to expend to save

the occasional embarrassment? Decide down that hierarchy that I have just read to you. Where do you want to go? That is the real issue: the resources that the parliament is prepared to put into it.

VICE-CHAIR—We have had other evidence from people complaining that Coastwatch is not managed well because at the upper echelons it is managed by Customs officers who are not necessarily expert in the technical activities of aviation surveillance. Do you have any comments on that?

Mr Simmons—Yes, indeed. I think there are two issues. The first is about the upper echelons, how they are run and how Coastwatch is seen to be separate. As you have heard from a lot of people, there is this perception that Coastwatch is not separated sufficiently from Customs. However, many people in Customs would take the view that it is separated too far. Recently, somebody—who shall remain anonymous—said to me, ‘Coastwatch has gone feral.’ There certainly is a separation there.

Mr ST CLAIR—Meaning what?

Mr Simmons—What I mean is that Coastwatch is off doing its own thing and does not give Customs enough support, that it is not close enough to Customs anymore, it has drifted well away from Customs. That is a matter of perceptions. The issue about whether people at certain levels know enough about operational planning and so on is interesting. The officer that Mr Mason referred to as being a dog handler making decisions about where aircraft went is probably the one you are referring to.

VICE-CHAIR—That is one of them, yes.

Mr Simmons—It makes it sound like you just took a dog handler from the airport and put him in charge of aeroplanes. The officer concerned was, in fact, a very experienced customs officer who has had a number of positions. His last position prior to going there was in charge of ‘barker’ college at Fyshwick, he was managing the whole training of the dog regime. He did not need to know a lot about aircraft to be able to say, ‘I want the aircraft to go in this direction not that direction.’ He is not there telling them whether to use a W plan or a Y plan or what sort of search plan to use. He was saying he wanted a search here instead of there.

Sometimes officers make decisions when, as I said before, technically another decision might have been superior. But officers make decisions about where aircraft or boats are to go—as, indeed, I did from time to time—for reasons a little bit further down the track. It may be that you divert an aircraft to pick up a senior officer and send him somewhere because you think that that senior officer further down the track is going to help you get more money to do your job. Those are the sorts of issue—they are more issues of internal politics and management than they are of where the aircraft should go. Sometimes you are right, sometimes you are wrong.

Senator WATSON—Given that you probably need a substantial agency to provide certain resources to Coastwatch, wouldn’t it be possible to still keep Coastwatch as a sub-agency of Customs, but at the same time give it a greater degree of independence and a greater input from Defence, particularly as surveillance, reconnaissance and over the horizon radar and all these sorts of things are increasingly important and it would therefore be desirable to have greater

integration, but not complete integration, between Defence and Coastwatch? What I am saying is keep it as a sub-agency of Customs and give it greater independence, but at the same time have a greater involvement, particularly in operational planning, from dedicated officers that could obviously come through from Defence, because that seems to be something of a criticism.

Mr Simmons—As I said to you, no matter how much you fight against it there are these degrees of perception that are there. The perceptions might be wrong, but they are nevertheless real, that Customs runs the show. There is also the issue that agencies are very nervous about giving up their prerogatives when they have still got the responsibilities. So it is certainly possible to do that.

I would have to say that from my observations, and from what I hear from people I still keep in touch with in the industry and in Customs and the like, the actual Coastwatch surveillance side is going pretty well. It has improved over the years. We have had recent improvements. Most of the improvements have occurred after there has been some sort of mini disaster. For example, somebody lands and all of a sudden someone says, ‘Hey, it is a priority. The minister will now fight with the minister for finance to get us some extra money.’ Like I have said before, they are the political facts of life; there is no argument about that.

Senator WATSON—The focus has changed from illegal fishing?

Mr Simmons—Yes, that is right, the focus has changed. I can recall when we had all the Vietnamese boat people coming down and we used to say, ‘Hey, they want to be found. We might as well just put a flag up out there on a buoy and say, ‘This way.’ All those things have changed, and they will change again. Again, you need to be a bit careful about going to enormous expenditure on something that is happening now that might not be an issue in a few years time.

So it is certainly possible to do that, but I do not see the great difficulty as being at the surveillance level. That is certainly getting better. The OPAC and PASC systems work reasonably well. I cannot see that in a machinery of government sense that you, the government or the parliament, can do anything that is going to significantly improve that. The improvements in the surveillance side are going to occur with management. Managers change from time to time, things will change and go up and down, but it will go on all right.

The real issue, it seems to me, is on the ground; it is the surface response area that has the significant problem. For example, about September 1996 I was on board a Customs vessel which we had just taken over from the Queensland authorities, and we were taking it from Cairns to Thursday Island. We had had a very busy period, we were very tired and I thought, ‘This is good, we will do this trip to Thursday Island. I will do a few exercises with the crew on the way and I will recharge my batteries.’ However, the first afternoon out we got a radio message to say to go posthaste to the Torres Strait because there were two suspect vessels rafted up alongside one another in the Torres Strait and they wanted to do a raid on them. So off we went, at full speed. We stopped somewhere along the way to pick up some Federal Police officers and some Queensland police officers who were flown out by helicopter to a sand spit, just a sand spit, where they were dropped off. We sent our dinghy in and brought them out. That was okay.

The next morning, just on sunrise, we did the raid on these two vessels. That was fine. And then they started to bring a couple of prisoners back and all hell let loose. There was panic. There were radio messages everywhere. Why? It was because they had found possible breaches of fisheries, quarantine and immigration on board, besides the drugs. Before the morning was out we had officers from all those agencies, all flown out by helicopter, to handle the situation. By the time we got the prisoners back on board the Customs vessel, and all these police officers and Customs officers, there must have been 30 people on board. I remember standing on the aft deck at one stage keeping an eye on one of the more serious prisoners but needing to go and do something and saying to one of the police officers, 'Hey, you guys, do a bit of work. I want to go and do a few other things.'

With the arrangement that I am suggesting the crew would have done the lot; the crew simply would have done it. They would have had powers under all those acts, and they would have had training under all those acts, and they would have gone and done it. If you are looking to save money, save resources, do things more efficiently, that is the sort of thing I am on about.

CHAIRMAN—Mr Simmons, in your submission you defined an alternative model. I had some difficulty in understanding how different your model would be to what we have now.

Mr Simmons—It is subtly different—and I was just coming to this at the end of my last comments. Once you have a single agency running the process, the officers of that agency—just like the police officers who are empowered to enforce lots of laws—are empowered to enforce all these laws and adequately trained to do it. Once you have said, 'This new agency'—whatever you like to call it—'now has the responsibility for all this,' there is no reason why the other agencies should not give up their prerogatives to control and say, 'No, you won't make this pinch; no, you won't make that pinch; yes, you will make this one; no, you won't make this one.' You just consolidate the whole thing, get it all into one position and go with it. I just think it will be a lot more efficient to do it that way. Does that answer your question?

CHAIRMAN—In a sense, but the big question of course in these things is always: at what expense to the budget?

Mr Simmons—As I suggested in my submission, this does not need to be all that expensive. You will excuse me, Mr Charles, before you came back, I ran through a hierarchy of expenses that you could go through as to where you put this and how deeply you go and what sort of cost it would be. It might be worth while to have somebody go through and do some serious costing. I am suggesting that you can decide the expense to the budget. If you decided that there were no compelling arguments to go beyond what Customs is currently proposing it continues to do, I would suggest that the very least you do is recommend a single line appropriation for all Commonwealth surveillance and response activities. That will enable the parliament to debate it and ultimately to take responsibility for the quantum of resources devoted to coastal protection, excluding of course the protection against paramilitary and military forces because that is the Defence Force responsibility. But for the other things, you can decide how much. You give it to one agency and say that it is their responsibility.

CHAIRMAN—At the moment, we significantly use Defence Force assets, personnel and operations time and expense to make all this come together and make it work. We use Defence both for surveillance purposes and defence assets for surveillance purposes and we use Defence

along with the police for enforcement. You are suggesting that Defence no longer perform those functions?

Mr Simmons—I am suggesting that they may or may not do those functions. You have talked a little about the purchaser provider model. I would suggest that, at preliminary estimates in February every year, Coastwatch should ask Defence, Customs, the state and the Northern Territory police, and any other law enforcement agencies that have boats, to give a firm quote on using their vessels to do these things. It would probably vary on rates of labour and fuel—for example, to have a vessel on stand-by on four hours notice in port, half hour notice at anchor, under way at minimum continuous power, under way at 85 per cent of maximum continuous power, under way at maximum continuous power, and so on. Some of those charges would be by the day, week, month or by the hour. Some providers might say that they want to charge a victualling rate for each person carried on board. It is all negotiable and only difficult the first time around.

Once you do that, when your estimates are done, you then say to each of those agencies, ‘Here’s a copy of what we have asked for, to help you do your estimates.’ When the final budget comes down, you say, ‘Here’s a copy of what we got, this is what we’re planning.’ Then you have your normal OPAC and PASC meetings, at which you say, ‘This is what we expect to use your vessel for over the next month or two months.’ And here is the rub: at some agreed period—once a month or once every three months—the vessel providers send in their bills, and Coastwatch pays only for those jobs that they asked for and that were satisfactorily completed. There is a model to do it. It would be interesting to see how often Coastwatch would then charge in trying to get the most for its money: how often it would choose a naval vessel that cost \$61,000 a day or a Customs vessel at \$13,000 a day. In one part of Customs’ submission they talked about agencies sometimes wanting the Rolls Royce response, when they were of the view that a Holden or a Ford would do the job—or words to that effect. You can come down to that purchaser-provider model and see how they shape up.

CHAIRMAN—We are a nation of 19 million people—not 190 million or 1.9 billion—and we do have a huge coastline. We have an awful lot of tasks that we like performed, including environmental, customs and regulation tasks, and it goes on. Maybe I have missed something, but it seems to me we use some very expensive Navy and Air Force assets in both surveillance and detection and then for apprehension. It is part and parcel of Navy’s operational requirements to keep their people fit and operationally up to date, and at the same time provide this vital service for Australia’s civil purposes. I have some conceptual difficulty understanding how on earth we manage to afford to have those assets tied up in a civil service. You are saying, ‘Have a purchaser-provider model,’ but when is Navy training their personnel and when are they actually doing patrol work for Coastwatch—and how on earth do you differentiate between the two?

Mr Simmons—I would suggest to you that Navy, when it is working out how much it is going to charge to do this work, can simply discount. If it wants to get more work then it simply discounts the amount it is going to charge to get the work, so that its people are out there training. Bear in mind that the training we are talking about on a naval patrol boat is mostly seamanship training: a bit of engineering training and radio training. This is not fighting nuclear war stuff; this is pretty low level training that we are talking about. I do not think that that

would become a difficulty for them. To the extent that they want to get sea time partially paid for, they can discount the amount they charge.

CHAIRMAN—I hear what you say, but considering how much difficulty some of these agencies seem to have in negotiating memorandums of understanding with Coastwatch, I have some difficulty understanding how on earth they would, in any reasonable period of time, negotiate a purchaser-provider model. But I remain to be convinced.

Mr Simmons—You can do it with private enterprise; it has been done quite recently.

Mr COX—Can I ask you about your comment that the thing that was really lacking was the response mechanism. We have had some pretty compelling evidence this morning from Fisheries about the small response rate to illegal fishing vessels. Where do you see the lack of response showing up?

Mr Simmons—That is certainly one area. It is an issue of the number of hulls. It is not about having bigger hulls going faster; it is about the number of hulls you have out there. A customs officer, who had been in the police force before, a long time ago said to me, ‘The real deterrent is the risk of being caught.’ Not penalties or things like that—penalties just put up the price of the product. The real deterrent is the risk of being caught. The tax office does not check everybody’s tax. It checks a very small proportion of tax but it knows very well that if it says to people, ‘This year, we’re going to check consultants,’ for example, by gee, you watch all the consultants be very careful about their tax this year, even though they might not check too many of them. It seems to me that that is the—

Mr COX—You watch all the politicians being careful about their tax every year!

Mr ST CLAIR—Well said.

Mr Simmons—Point well taken. Perhaps you do not need to have a very high hit rate. This ‘sample of a sample’ approach is used in all sorts of areas. It is used in epidemiology and in all sorts of science. That can be worked with. It is really a case of how much you can afford to put out there but the smaller the vessel, the cheaper it is to put out there and the more of them you can put out there. The more of them that you can have, the more of them you can put out there.

I have often wondered if we need a bit of lateral thinking. Think about this for a moment: let us say we entered into an agreement with the Indonesians that, for every village that these type 1 and type 2 vessels come from, on 1 January every year, if no vessel from the village has been caught in Australian waters, we will pay that village \$1 million. How many years do you think it would run before fishing vessels stopped coming down? And \$1 million a year to 20 or 30 villages—gosh, that might be a lot cheaper than what we are doing now. Do you see what I mean? Perhaps it is time for some lateral thinking. There are a whole stack of areas where I just think, ‘Get on with some lateral thinking, boys and girls.’ Now, you might never be able to pull that one off but perhaps there are some other smart alec ideas that somebody can come up with that will do it.

Senator HOGG—I hear your proposition but the problem with that is it would become a Dutch auction. That is the real problem.

Mr Simmons—Of course, Senator, you are absolutely right. It would, but do you see what I am getting at?

Senator HOGG—I understand.

Mr Simmons—I am just trying to make the point that perhaps there are some other ways of doing this. Perhaps there are some other ways of raising the profile with respect to your risks of being caught. Like with the tax office—you are not necessarily checking it.

CHAIRMAN—Thank you very much for your submission and thank you for coming today.

[11.51 a.m.]

OWEN, Captain William Lloyd, Member, National Defence Committee, Returned and Services League of Australia

CHAIRMAN—Welcome, Captain Owen. We thank the RSL for its submission and we thank you for coming to talk to us today. Did you have a brief opening statement to make before we proceed to ask questions?

Capt. Owen—If I did make a statement it would be really to run quickly through the submissions we have submitted, but most of the arguments are set out there, and probably more succinctly.

CHAIRMAN—Then why don't we ask you questions.

Capt. Owen—I am quite happy to receive questions.

CHAIRMAN—Very good. As I understand your argument, you said that you have studied the audit report and with respect to the administration of Coastwatch, and you think all 15 recommendations by the Auditor-General were fair and you support those. Nonetheless, you go on and say that Customs can be considered to be a client agency of Coastwatch, which it is. It is one of the things that we are examining. The letter from Derek Robson finishes by saying:

We also welcome the changes to the Coastwatch functions introduced by the Prime Minister's Task Force.

Nonetheless, you still think that this whole thing ought to be in Defence as a separate organisation. How do you reconcile the civil responsibilities of the majority of Coastwatch's tasked responsibilities with control by a military organisation?

Capt. Owen—I would answer that interesting question by saying that most of the enforcement and regulation side which involves additional personnel, as we heard from Mr Simmons in his recent address which I was fortunate enough to hear, comes at the level of the patrol vessel, whether it is a Customs patrol vessel or a naval patrol vessel, enforcing some particular incident. I had experience as the naval officer commanding the Queensland area, my last job before I left the Navy, where we had a number of patrol boats operating out of Cairns. This gave a particular task to the commanding officer of those patrol boats. This happens in all nations. A lot of countries around the world use their navy for this sort of work, and while the officers are in that position they have special pre-commissioning training for the task and they are given certain powers when they are involved in these incidents.

I believe that the COs of the Fremantle class patrol boats over the last 20 years nearly now have been undertaking these responsibilities very well. They are frequently supported by police officers or Customs officers as required. I do not think it is feasible to train naval people to the full depth in every aspect of their responsibilities, but I do think that the general training that naval people get puts them in a good position to undertake these tasks, and I think they have shown that they can do it rather well.

In that context, I hope that if they do replace the Fremantles, rather than extending the life of type, they do take into account the capabilities of the Fremantles to impound and also to tow and to enforce in difficult situations. In fact, there are occasions when a shot across the bows has been necessary and you do need a military vessel to do that. Therefore, we believe that we must not look too much at the present situation we have, as Captain Simmons mentioned; we believe the surveillance and coastwatch role is the peacetime situation which has to be used and developed if a more serious emergency arises at any time. That is why when we talk about Defence managing coastal surveillance—and what we are really talking about is the command and control—we believe that it would be possible then to do a smooth transition to any more serious situation that might arise, which would certainly not be the case even now.

It is much better now. We agree that, following the implementation of the PM's task force and a two-star Navy officer being put in as director-general of Coastwatch, the liaison with the maritime commander and the intelligence agencies is infinitely simplified. We believe that this is a very interesting step in what we consider to be the right direction. We like to think that our submission to the Prime Minister's task force which we sent on 29 March 1999—I have it here in front of me—and which we had a very favourable response to from the task force, did play some part perhaps in the thinking of the task force in setting up this improved organisation. The organisation is set out in this excellent audit report. It shows the pre-2000 organisation which was in force for a number of years and the new one, and the new one is cleaner and a tremendous step forward. So we believe that what is happening now from the structural command and control point of view is very much better than it was before.

The fact that we are using a lot of Defence assets is a big point. But, as we have said, we believe that the anomaly in the whole thing is the use of civil contract aircraft for the close inshore patrol area. This may be all right in the present situation, but if things hotted up in some way—which I think they might do; the general situation in the region is not particularly stable at the moment—we would be much happier if we started thinking long term and saying these aircraft should be service aircraft. After all, do you remember when we used the Trackers out of Broome some years ago, at the time of the Vietnam boat people? The Trackers that had just come off the carrier when we had taken her out of service, they were all moved up there and they did an excellent job in the surveillance role when there was a lot of trouble from these Vietnamese boat people coming in.

I believe that the Air Force would be very happy to take on this task, provided they were provided with the assets to do it. There are some very good aircraft around which are very economical to fly. I am not suggesting we use P3s or long-range antisubmarine aircraft for this. There are specialised, medium to short range patrol aircraft available and I believe that that really is the long-term solution. We are suggesting that planning should start now. It will be five or 10 years before we get there, but it is never too late to start thinking about these things.

CHAIRMAN—Back on the generic issue, as a result of the Prime Minister's task force we now have the National Surveillance Centre and it is directed by one of your own.

Capt. Owen—Yes.

CHAIRMAN—He is a high-level naval officer. Its inputs come from a range of civilian and military observations, including Jindalee over-the-horizon radar, information that we share with

other countries, satellites and all kinds of weird things that are happening here, there and everywhere. It attempts to coordinate that information for what is essentially—notwithstanding that we probably use more Defence money on Coastwatch activities than money from any other agency—a civilian responsibility. Why don't we give this a chance to work before we say we have to shift it again?

Capt. Owen—We will give this system a chance to work. We believe it is a great improvement on anything we have seen before. The whole thing has been building up since 1968 when we first started thinking about these things. It has had its little history through the Beazley report when after 1983 it was given to the Federal Police, which sent a shudder through a lot of people in the Navy. I was there at that time. Of course the Hudson report in 1988 resulted in giving it to Customs, another client agency—and certainly a more suitable agency for this function than the Australian Federal Police. Some of us were surprised that it did not go to Transport if it was not going to go to Defence.

I still believe that during peacetime most of the work is the responsibility of civilian departments. However, the guarding of our northern sea frontier is basically a Defence responsibility. That is why we have projects like the Jindalee radar and AWACS. Therefore, I believe that total overall management of this area fits very neatly into Defence, which already has most of the assets.

I have heard people say that going to Defence could be enormously expensive, but Defence already has a basic asset to do it in the form of its surveillance management organisation. I think we could move very easily from the present organisation—with a two-star admiral as the director-general of Coastwatch—into an overall Defence management situation. It would not be a difficult revolution but it would improve our general preparedness.

Mr COX—If you were running the coastguard, one of the other command and control issues is that it would be performing some quite sensitive functions for other agencies. The two that are most obvious to us from the evidence that we have taken so far are Immigration and the Federal Police in relation to drug importations. There are circumstances in which an agency that is dealing with one of those problems will want to let a boat land either because they want to catch the people who are meeting the illegal immigrants or because they hope they are in a position to follow the illegal substances—the drugs—being imported into Australia and pick up a larger selection of people along the supply chain as a result. Do you think the defence organisation, given its rather single-minded focus, is necessarily going to be the best type of organisation to have sensitivity in those areas?

Capt. Owen—I think it is very largely a question of the selection of people you put into this area: you have to get the right people. At the moment we have a very good choice in the form of Admiral Shalders who is doing the job of Director-General Coastwatch. I do not believe anybody in the Defence Force would have been necessarily suitable for that job or would have had the ability to handle it. I am not saying it would be easy; I am suggesting that the position of the RSL on this—which has been a consistent position for a number of years—is that, once Defence has been given this responsibility, it will begin to take it more seriously.

I had experience myself when I was in Queensland when the top management of Navy was very much focused on the carrier task force concept, and the Navy had been built up on that for

many years. Things like the patrol boats were almost considered a rather unwanted sideshow, but they were doing most of the work at that time, they were the people at the frontline of the operational activity of the Navy, as were some of the submarines, because I had command of the submarine squadron.

So there are problems, internal political problems, that would need to be dealt with, but I believe that if government gave Navy and the Air Force, or Defence generally, the responsibility to do this, it would be grasped quite readily. People would then realise that it is a very fine part of the general training of the wide-ranging, wide-thinking officers you need at the top ranks, to have this function as part of their training.

VICE-CHAIR—The other issue that has been exercising our minds in deciding whether to recommend a coastguard type organisation is how important the patrol boats are for naval training, how important they are to Navy, and how, if they were put into an organisation that was essentially a coastguard that was separate from Navy, that training could be facilitated if it was indeed considered worth while.

Capt. Owen—It is a very good question. In the National Defence Committee of the RSL, to which I belong, we have given a lot of thought to the ALP's proposal for a coastguard. Mr Stephen Martin has talked to us about it. We believe that there are certain theoretical advantages to this idea, as we said in our submission. If it did happen we would envisage that naval assets would be assigned to the coastguard so that the people there would still be naval people running the patrol boats. If we took those 12 or 13 sea commands out of the structure of a small navy like the RAN it would have a major effect on the experience levels of our senior people. There is no substitute for the experience of command, whether it is a patrol boat, a destroyer, an aircraft carrier or a submarine. That is the thing we really need our senior officers to have if they are going to be able to advise government properly, and command big forces correctly.

VICE-CHAIR—Is service on naval patrol boats important for developing ratings and seamen as well?

Capt. Owen—Yes, I think so, I think it applies equally so. It is rather like in the Army I would imagine where operations in small units in the field is a unique experience, and a very important experience when you come to be the commander of a force. I certainly think that the main argument against the coastguard concept is that there is so much of a squeeze on Defence that to lose this particular function would be a major problem for Defence in the long run. In the short term there will be ways it would be all fixed up, but to set it up as a complete coastguard organisation like the United States and Canada have would be very difficult. After all, the coastguard in the States is quite a different set up in the sense that it looks after all the navigational aids and it does a tremendous amount of work that is done by the states in this country. I do not think there is any suggestion that the coastguard that the ALP is talking about would do that.

Although I do not think we feel terribly strongly about the concept as it stands, although I am only speaking for myself here, I believe the way I would be able to accept it more easily would be if the Navy continued to supply the assets for it and the Air Force continued to supply the assets, but the management was done by some coastguard organisation which would then be

extremely similar to the situation we have got now, which is working well in the present peacetime situation. It is a great improvement on anything we have seen before, I am sure.

Mr COX—It is much more technically advanced now than it has been for the last 20 years. That is a significant change as well.

Capt. Owen—Yes.

CHAIRMAN—Captain, we thank you very much for coming and talking to us today and for your report. When we complete our deliberations we will be delighted to send you a copy of our report.

Capt. Owen—Thank you very much indeed.

Proceedings suspended from 12.11 p.m. to 2.04 p.m.

[2.04 p.m.]

BATEMAN, Mr Walter Samuel Grono, Associate Professor and Principal Research Fellow, Centre for Maritime Policy, University of Wollongong

TSAMENYI, Professor Martin, Director, Centre for Maritime Policy, University of Wollongong

CHAIRMAN—I welcome the Maritime Policy unit from the University of Wollongong to today's hearing. We have received your submission, for which we thank you. Do you have a brief opening statement before we start with our intensive questioning?

Prof. Tsamenyi—Yes, we do, Mr Chairman. If you permit us, since we advised the committee of our recent submission, we have had the benefit of a comprehensive briefing by Rear Admiral Shalders, the Director-General of Coastwatch, on the changes made to Coastwatch as a result of the Prime Minister's coastal surveillance task force last year.

We are most grateful to Rear Admiral Shalders for his briefing on recent developments in Coastwatch. Although there have been many improvements in Coastwatch during the last year, this change has only marginally affected the main points of our recent submission. And we want to stress that, in making our submission, we intended no criticism of how Coastwatch is doing its job, except perhaps in the minor areas of recruitment and training. Rather, we are focusing on the broader strategic picture and the charter under which Coastwatch operates.

A fundamental point in our written submission was that the Prime Minister's special taskforce in 1999 and the ANAO's performance audit have taken insufficient account of how requirements have changed since the Hudson review in 1988. Specifically, the recent reviews have focused mainly on the boat people issue. They did not take a holistic view of Australia's requirements for maritime surveillance and response as required to fulfil their rights and obligations under various international agreements, including the United Nations Convention on the Law of the Sea.

The reviews emphasise the means, that is the organisational arrangements and operational capabilities, rather than the ends. These ends comprise the protection of our national maritime security against a full range of credible threats, the effective enforcement at sea of our national maritime laws and the discharge of Australia's obligations as a party to various international conventions, including specifically the Law of the Sea Convention.

Our ability to deal effectively with threats such as illegal migration, drugs, illegal and unregulated fishing and marine pollution are as much part of preserving national security as is the maintenance of military forces to protect against conventional and military threats. Yet no single agency in Australia accepts a responsibility for ensuring maritime security in toto.

There is little discussion, for example, of dealing with these threats in the recent defence public discussion paper. Coastwatch does not have an enforcement function itself and there are worrying accounts of the delays experienced by patrol boats when having sought instructions.

They have to wait while Coastwatch duty officers consult with other agencies and a decision is made. This type of problem leads us to the observation that client satisfaction should not be the only criteria by which to assess effectiveness of our maritime surveillance and enforcement arrangements.

We would also like to draw the committee's attention to our concerns about the current legislation for maritime enforcement in Australia. We maintain this concern despite the recent changes to legislation in line with the responsibilities of individual departments and agencies. Existing legislation is still sectoral and this creates a messy situation particularly for the officers who have to enforce Australian maritime laws at sea.

Finally, Mr Chairman, we would like to suggest that it is no longer a question of whether an Australian coastguard should be established—it is just a question of when. On grounds of costs, and more particularly a lack of support from most departments and agencies for the proposal, the committee may choose not to recommend a coastguard on this occasion. We believe that it is inevitable that Australia will eventually have such a service.

The national interest as opposed to narrow sectoral interests and the dimensions of the task demand a service, whatever it might be called. It will be an autonomous professional paramilitary organisation with full responsibility for coordinating maritime surveillance and response operations in our offshore areas. It should be established by its own legislation and the personnel staffing, shore headquarters, flying the aircraft and manning of the patrol vessels would be members of the properly recruited, trained and disciplined force. In some respects, Mr Chairman, Coastwatch provides an embryonic framework for such an organisation. Thank you.

CHAIRMAN—Thank you for that. You did say in your report, and you have just repeated yourself, that:

Our ability to deal effectively with threats such as illegal migration—

I assume you mean immigration—

drugs, illegal fishing and marine pollution are as much part of preserving national security as is the maintenance of military forces to protect against conventional military threats. Yet no single agency in Australia accepts a responsibility for ensuring maritime security *in toto*.

Can you explain to me how on earth you think we could afford to set up a whole separate paramilitary organisation, replace existing Navy and Air Force assets and dispense with our contractor supplied assets? How are we going to manage to afford to do all that, with the world's largest, longest coastline and 10 per cent of the world's land mass to cover in terms of responsibility? How do we—19 million people—afford to do that?

Mr Bateman—Chairman, you almost said it yourself: it is a big problem, and it demands the appropriate response. I believe we should properly cost the contributions from the separate agencies at present—obviously, there is a cost there. We are not going to establish this organisation in addition to what is happening at present; it is going to take the place of certain things. I do not believe the proper costings have been done at this stage. We also have to consider things like—although they get a bit airy-fairy—indirect costs, the deterrent costs of not having an effective system.

An ANAO audit report, I think it was No. 32 in 1998, said that the management of boat people was estimated at \$40 million to \$50 million per annum. That was several years ago—what is the accurate cost now of the management of the boat people phenomenon? I do not believe Australia has the drug situation properly under control at present—what is the cost to Australia of the drug problem? And, of course, an explanation for the drug problem in Australia has to be that a large quantity of drugs is still getting into Australia, undetected, by sea.

CHAIRMAN—Mr Bateman, you say you do not believe these things have been properly costed. If you are going to come to this committee with a proposal that we turn current policy on its ear, that we have a radical new approach to these issues, isn't it your responsibility as a responsible organisation policy unit—the University of Wollongong—to tell us how much you think it will cost?

Mr Bateman—I would not have access to those facilities.

CHAIRMAN—Or is it easier to say, 'Hey, I would like the world to give me lollipops,' and the lollipops appear?

Mr Bateman—No, it is not a question of that at all, Mr Chairman. I think we are dealing with a very serious issue. In terms of access to the available figures and the data to obtain the costs, it is a difficult issue. But, as we said, we are not proposing—and I question your statement that this will be—'a radical new approach'. As Martin Tsamenyi said in his introduction, to some extent the embryos of that organisation are already here in Coastwatch. It is not necessarily a radically new approach; there could be changes at the margin. There is a host of options.

CHAIRMAN—Maybe I have missed something here, but we are going to have a single agency?

Mr Bateman—Yes.

CHAIRMAN—Paramilitary?

Mr Bateman—Yes.

CHAIRMAN—Either we take the Fremantle patrol boats from Navy and the PC3 Orions from Air Force or we buy all of the civilian contractor's turboprops and we purchase Bay class patrol boats from Customs, and whatever else they have got out there as well—and there are a lot of other assets as well?

Mr Bateman—In a way it is not really the issue. The Fremantle class patrol boats could remain naval vessels. It is just part of the organisational options that are available, and the fact that there should be a single—

CHAIRMAN—Sorry, you said 'single agency, single responsibility'.

Mr Bateman—Yes, and there can still be the single agency, although for the time being, whilst the Fremantle class patrol boats are in existence, they could operate for the Coastwatch organisation—or the coastguard organisation, whatever we wish to call it.

CHAIRMAN—On a full-time basis?

Mr Bateman—On a full-time basis, if need be—yes.

Prof. Tsamenyi—Also, I think that your cost concerns are valid, but I think there is another consideration.

CHAIRMAN—They might be valid.

Prof. Tsamenyi—Is there a cost-benefit analysis to national sovereignty?

CHAIRMAN—Have you done that?

Prof. Tsamenyi—No, but this is a fundamental issue that needs to be assessed. The question is: when it comes to sovereignty, is there a cost that can be put on it? It is not an issue which we can answer, but it is a relevant issue which needs to be considered. The fundamental point in our submission is actually not the asset question but whether Australia is currently discharging, or is capable of discharging, the host of international obligations it has, which require some maritime enforcement capacity. That is the big picture we are looking at, rather than the question of costs. I am not sure whether we are equipped to actually consider the question of costs; we were submitting on the basis of the big picture, which would actually determine the costs.

Mr Bateman—If we were funded to do it—

CHAIRMAN—With the greatest respect, the parliament is a very practical place as well as being theoretical when it comes to policy. There are a million wish lists out there in the public. If our public purse were bottomless, perhaps your elected political representatives would be able to make everyone happy, but life is not like that, is it? Your political representatives decide between priorities and do so based on available resources. Does that make sense?

Prof. Tsamenyi—Of course, it does, but it does not stop the issue from being considered. From some earlier comments, the question is: has there been a cost put on all the issues that he has raised? It might be that, when all these issues are costed, what we have now could, with some reorganisation, perform that function. We are not dealing with the assets question; we are dealing with the fundamental, broader question of whether the current arrangement enables us to do the whole range of things that we have undertaken to do.

CHAIRMAN—Even on a philosophical basis, let us take a simple, practical example. Let us take Jindalee over-the-horizon radar, which will be encapsulated into JORN one of these days when it gets up and running. We are certainly aware of the fact that Coastwatch, as well as the Air Force and the Navy, is vitally interested in data that comes out of the sweep of that radar system, because it will provide a lot of information which will be very useful to Australia. Are you proposing that Defence gives up its rights and use of JORN and hands it over to a new paramilitary organisation?

Mr Bateman—No, of course we are not suggesting that, Mr Chairman.

CHAIRMAN—Then what are you saying? Are they going to share the information?

Mr Bateman—The government has a document on Australia's oceans policy that talks about an integrated approach to oceans management. We are talking about an integrated approach to maritime surveillance and response. Currently, we do not have that organisation and, currently, I submit that there are problems in terms of the effectiveness of the system we have at present, simply because the organisation is still basically sectoral based. Coastwatch is a client-oriented organisation; it works for its clients. It is possible to have an organisation, perhaps based on the existing Coastwatch, which would in fact have more authority to act in its own right. That does not necessarily mean that in the first instance it has to own all the assets.

Mr COX—Do you think the problems are more to do with response than surveillance?

Mr Bateman—In some ways, yes. Of course, you have to distinguish also between deterrence based on the system we have, other people's assessment of the system—be they potential boat people or drug smugglers—and the effectiveness of the existing arrangements. They are two issues, to some extent.

Mr COX—We heard some absolutely staggering evidence this morning from the Australian Fisheries Management Authority that in some areas apprehension rates for Indonesian fishing boats that were fishing illegally were only 2 ½ per cent of the number of sightings. It struck me that perhaps our response capability was more of a problem than our surveillance capability. There is not much point having more surveillance and finding more things you are not able to do anything about.

Mr Bateman—You are absolutely right. It is very interesting to know that there is a target out there, but if cannot intercept it, identify it and find out what it is actually carrying, what is the point? One of those Indonesian fishing boats may well have live animals on board or it could be in the boat people smuggling game.

CHAIRMAN—When we find a vessel that has a combination of illegal immigrants, anthrax, heroin and illegal fishing, what do we do about that? Under your model, what do we do?

Prof. Tsamenyi—This is a very fundamental point. To give an example of how hard that problem is, I will take the US approach. The US coastguard has the mandate under legislation to deal with all the examples you gave: they do not have to consult any agency to do that job. Under our current system, if you find a boat with four different types of maritime crime being committed on board, you need to consult each of those separate departments to deal with them individually. The maritime enforcement agency at the moment is not empowered to do that. That is all we are saying: we need to move away from that approach.

CHAIRMAN—If you have researched the US coastguard, did your research not tell you that it is the most expensive organisation of its type in the world for both inputs and outputs?

Prof. Tsamenyi—Absolutely, but it depends on what you empower it to do. Under the US system, delegations are very comprehensive. We are not suggesting that we do that. Indeed, the

use of the word 'coastguard' make people apprehensive. You do not have to name it 'coastguard'; you can call it 'Coastwatch'.

CHAIRMAN—You were talking about how well it operated, but it is also extremely expensive. That is the advice we have been given.

Prof. Tsamenyi—Absolutely, but it depends on what you ask it to do. You can go for full strength and give it the five-star hotel treatment, depending on your threat analysis and where you want it to focus.

Mr COX—We had evidence this morning of all the law enforcement agencies having to helicopter officials from their various organisations to one site to deal with a range of activities that were going on on a couple of boats that had been located. It seems that there is some efficiency argument in having people with the authority to act under different legislation.

CHAIRMAN—Multiskilling.

Mr COX—Yes, multiskilling.

Mr Bateman—It is interesting to go back to the ANAO's report, which contains a number of comments. Paragraph 3.44 says that Coastwatch estimates that, without prior intelligence, the probability of detecting a SIEV or an FFV attempting to breach Australian sovereignty is likely to be low. There are a number of comments like that and I think that, to some extent, they are issues that we have to address. There may well be extra costs involved, but we have to stiffen our capability in terms of making our maritime approaches less easy to get across than they are at present.

CHAIRMAN—One of those issues might be what is referred to in the report—erroneously, I am informed—as 'black flights', which are unauthorised aircraft incursions into Australia's airspace. What do you suggest we do about that problem?

Prof. Tsamenyi—No system can actually achieve 100 per cent efficiency in eliminating illegal activities altogether. It is a question of minimising them to some significant degree. There are a whole range of technologies around from vessel monitoring systems to Radarsat 1 and 2 and a whole lot of trends in combination with existing maritime enforcement capabilities. The choice would depend on what the threat is. I believe there is sufficient technology. Regardless of what organisation or framework you adopt, you are going to face the same problem. The coastguard will face the same problem. The Coastwatch approach will face the same problem. The choice of an organisational framework is not going to eliminate the problem. The question is how we use technology to minimise cost and to reduce the incidence of incursion. Personally I do not think I am equipped to answer that question in terms of how we do it.

CHAIRMAN—I am sure if I go and ask Admiral Shalders if he would like a full array of radar across the entirety of the northern, western and eastern coasts of Australia, he would say, 'Absolutely. Let the budget magically supply it.' But this is the real world that we are dealing in.

Prof. Tsamenyi—I would agree with the comment by Admiral Shalders. Of course, it is a question of how well you want to fund an organisation; that is how efficiently it operates. The point we are making is when it comes to maritime enforcement it is a question of maritime security. It is a question of national security. I have raised the point earlier. Can you subject national security to a cost-benefit analysis? It is a question I do not think anybody has answered yet.

CHAIRMAN—We seem to have a fundamental difference. You believe that Australia is moving towards a US coastguard type model; that is a single source agency.

Mr Bateman—We did not say a US coastguard type model. We said a single agency. It does not have to use the US coastguard model. There are cheaper alternatives in the region.

CHAIRMAN—But for better or worse anyhow, a single source agency whereas Coastwatch itself tells us they are moving more towards an outsourcing model where the agency that supplies the service takes responsibility for supplying an outcome. You would disagree with the current strategic approach?

Mr Bateman—We would have concerns about the efficiency of that organisation, particularly in terms of things like recruitment and training of personnel. The example of the US coastguard is an interesting model. As Professor Tsamenyi mentioned, you can have delegations by which a single agency can act on the part of other agencies so you do not have that situation you heard about this morning in the Torres Strait. You do not have the situation we mentioned in our opening statement where sometimes, following on from your own example of one boat perhaps being engaged in a range of different things, the patrol boat officer has the authority to act. He knows his delegations and does not have to wait for the duty officer in Coastwatch headquarters in Canberra to consult with a number of other agencies before action is taken. We do not have a situation where in terms of international liaison, overseas agencies, including the US coastguard, profess to be concerned about who is responsible for what in Australia. In Honolulu the coastguard headquarters is visited by a number of different agencies from Australia every year professing to be the agency that wants to liaise with the coastguard. I think that is a sad reflection on Australia's situation.

Prof. Tsamenyi—You made a point earlier about your current contractual arrangements. You do not need to change your contractual arrangements to actually do the kind of things we are suggesting. You have to contract to get access to aeroplanes and other things.

CHAIRMAN—Mr Bateman was talking about training, so I assume the kind of thing you are talking about is that you train individuals in a number of disciplines and that it would be pretty extensive training. Even in the US Coastguard, those who operate in search and rescue are not necessarily out chasing drugs or trying to catch illegal long-line fishing boats. Individual groups of that organisation operate in different sectors of responsibility. How on earth can we train everybody out there in the lot?

Mr Bateman—I think that is quite easy. The naval patrol boat people to some extent have knowledge across the board. The Navy trains them to be aware of their responsibilities. If they have powers under the Customs Act or powers under an immigration act, I would hope that they are competent to discharge those powers.

Mr COX—You said there were other models around our region of single coastguard type organisations, other than in the US. Can you tell us a little about those?

Mr Bateman—Certainly. There is a clear trend among countries generally and in particular in our region for those that have not had coastguards to establish coastguards, and for countries that perhaps have had small, very coastal oriented coastguards to beef them up. That is a pretty understandable response to the additional rights and obligations that countries have under the 1982 Law of the Sea Convention as well as under other international conventions that have come into force since 1982.

Particular models other than the US Coastguard in our region would be the Japanese Maritime Safety Agency, which is now called the Japanese Coastguard. Mr Chairman, you will say that that is another very expensive model, but at least it is doing an efficient job in the Japanese national interest. The Indian Coastguard is an example only established about 14 or 15 years ago by hiving off assets from their navy and largely manned by Indian naval people as, initially, part of the Indian defence forces.

Closer to home, Malaysia is currently looking at the establishment of a coastguard where it has not had one previously. Vietnam and the Philippines have actually established coastguards. And, of course, we are talking about countries which also regard themselves as being maritime powers with significant maritime interests that demand effective national maritime surveillance and response arrangements.

Mr COX—In all of those cases, what sort of ministry controls them? Are they in a defence ministry?

Mr Bateman—There can be a variety of options. There is a variety of options in Australia's case. The separate autonomous organisation that we talk about could well be within the Justice portfolio. We are not necessarily advocating that it be part of the Defence portfolio; although, equally well, it could be in the Defence portfolio but the people need not necessarily be part of the Australian Defence Force. There is a model already for that within the Defence portfolio, with Emergency Management Australia. Similarly, the US Coastguard could be with some other portfolio.

Prof. Tsamenyi—The US Coastguard is part of the Department of Transport. In wartime, it becomes part of Defence.

Mr COX—Have most of those coastguards got search and rescue responsibilities?

Mr Bateman—It would probably be fair to say most do have. We mention in our submission that the nature of the task in search and rescue to some extent requires similar capabilities.

Mr COX—We heard this morning that there were some similarities and some significant differences here and we are seeking further information on that so we can get a proper handle on it. Most of our search and rescue operations seem to be in the areas where Coastwatch does not actually operate.

Prof. Tsamenyi—With search and rescue, an interesting parallel is the use of technology to assist safety at sea. A good example is where you have a compulsory vessel monitoring system, say, for your fishing vessels and they are linked to your national maritime enforcement agency. It is very easy to identify a number of fishing vessels in a particular vicinity that can assist vessels in distress, as opposed to sending vessels from shore. Again, there are a whole lot of options that can be undertaken within that.

Mr COX—Have you done any work on command and control arrangements with single coastguard services where, for example, they are conducting a law enforcement activity and other law enforcement agencies that have an interest in the particular issue might have a view about how the operation should be run? For example, they might want illegal immigrants to be landed so that they could apprehend and get evidence against the people who are meeting them or they might be taking the daring routine of wanting drugs to be landed so that they could follow them and establish the supply chain. Have you done any work on problems that arise in those cross-agency areas?

Prof. Tsamenyi—Personally, no.

Mr Bateman—No.

Prof. Tsamenyi—From my reading of the literature on the point you have raised—especially if you use the US example—what you do is actually have a national framework within which all these activities take place. It depends on the philosophy of maritime enforcement you adopt. You have to address those problems of interagency coordination within that.

Mr COX—My experience of interagency coordination between police forces in this country on drug issues is pretty unimpressive.

Prof. Tsamenyi—It is always a problem, yes.

CHAIRMAN—On page 7 you draw a distinction between Coastwatch monitoring pollution damage to the environment and the detection and prevention of marine pollution. Can you tell me why you were particularly surprised that Coastwatch was not expected to detect and prevent marine pollution and how on earth would you expect them to prevent it?

Mr Bateman—Again, it is a deterrence issue. In a way, that particular comment refers to, I think, the ANAO's reference to monitoring of pollution damage. I believe that our maritime surveillance and enforcement effort should also be in the business of preventing the damage occurring in the first place.

CHAIRMAN—How do you do that?

Mr Bateman—You can do it by detecting oil spills from operational pollution from ships passing down the coast.

CHAIRMAN—By doing what?

Mr Bateman—The surveillance flights detecting the ships that are pumping their ballast or cleaning their tanks off our coast.

CHAIRMAN—You mean you want us to put assets on every ship that—

Mr Bateman—Of course not.

CHAIRMAN—We were told today there were 10,000 ship movements around Australia a year.

Prof. Tsamenyi—If you look at our current international obligations on this, there is a new trend to impose flag state responsibility. Now flag state responsibility requires that where a coastal state detects some infringement—

CHAIRMAN—I am not talking about detecting; I am talking about preventing.

Prof. Tsamenyi—Absolutely. Some of the prevention is undertaken by the flag states through the kinds of penalty and the kinds of enforcement actions. It is a shared responsibility. If it is detected by the coastal state, enforcement has to then correspond with the legal regime. It is a complex issue, but it still needs to be addressed.

CHAIRMAN—Also on page 7 you commented that the current situation with legislative arrangements is unsatisfactory and does not lend itself to an effective surveillance and enforcement regime. Can you tell me two things about that? First, why did you come to such a conclusion and second, can you give us some examples of shortfalls that have arisen due to legislative arrangements?

Prof. Tsamenyi—To answer the first one, if you look at our current legislative framework, there is a whole range of legislation dealing with sectoral interest, which create offences. The maritime enforcement powers are given to a Commonwealth vessel or a Commonwealth aircraft. A number of agencies fall under that category. If you look at the practical reality, Coastwatch does not have a legislative function; it does not have an enforcement function. It has a surveillance function: it sees and reports to somebody. Surely, that kind of legislative arrangement, we say, is not adequate if you look at other models. Again, if you will permit me to use the US example, every piece of maritime legislation there identifies that single body as being responsible for ensuring enforcement—that is the point we are trying to make.

CHAIRMAN—On pages 6 and 7, you state:

There would seem to be a clear community desire for more effective coastal and marine surveillance and response arrangements...

How did you come to that conclusion?

Prof. Tsamenyi—Largely based on our readings of the press and our interaction with students. We run two courses per year at the University of Wollongong on maritime law enforcement, and a whole range of agencies send people to those courses. We did use those views from our broader understanding of the issues. As for the increase in community

awareness of marine environmental issues, if you talk to a host of environmental NGOs in the community, then you will get those views.

CHAIRMAN—Given that it may be impossible for Coastwatch, Immigration or any organisation, paramilitary or other, to guarantee that no illegal immigrant will land in Australia—I assume you accept that—

Prof. Tsamenyi—Absolutely. Yes, I agree.

CHAIRMAN—how does one allay so-called community fears about Coastwatch not being able to do the job, or our coastal surveillance organisations not being up to scratch?

Mr Bateman—Look at the record over the past 12 months: the boat people instance early last year. Admittedly, there has been a tightening of arrangements. We have to look at trends. One of our fundamental points in our submission was that the inquiries last year looked at one particular issue—not the wider issues of drugs, illegal fishing, pollution, et cetera. There are certain developments and trends. Take illegal fishing, for example: Professor Tsamenyi is just back from Honolulu, where a new international convention, to which Australia will certainly become a party, was discussed. I will leave it to Professor Tsamenyi to give more details, but it has quite a significant impact on future requirements for maritime surveillance and enforcement in Australia.

Prof. Tsamenyi—It is a new convention for the conservation of highly migratory stocks in the central and western Pacific, to implement the UN fish stocks agreement, which Australia has ratified and legislated in the Maritime Legislation Amendment Act. The responsibilities Australia has incurred go from the coast of French Polynesia all the way up to the coast of Japan—it is a massive coast. We have just negotiated that convention after four years. If you put that obligation against the current framework we have, one of the questions I ask is: how on earth are we going to discharge those obligations? Those are our concerns—the bigger picture as opposed to confining ourselves narrowly to the Australian exclusive economic zone. Even on current evidence, we are incapable of covering such a huge area. Unless you take a fundamental re-examination of the current system, we are not going to do that.

CHAIRMAN—Thank you very much for your submission and for coming and talking to us today. If we have further questions, I assume you would not mind if we wrote to you.

Prof. Tsamenyi—No, not at all.

CHAIRMAN—We will be delighted to send you a copy of our report when we table it.

[2.50 p.m.]

CHALMERS, Vice Admiral Don, AO, RANR, Executive Officer, Sonacom Pty Ltd

CLARKE, Mr Gary Lenton, Managing Director, Sonacom Pty Ltd

CHAIRMAN—Welcome. We have received your submission for which we thank you. Would you like to make a brief opening statement?

Vice Adm. Chalmers—Yes I do, thank you. Sonacom wishes to thank you and the committee for the opportunity to make a submission to the inquiry into Coastwatch. The specific term of reference of the review addressed by Sonacom is that relating to new technologies which might improve the performance of Coastwatch. Let me introduce you to Sonacom. We are a Sydney based Australian company.

CHAIRMAN—We will not hold that against you.

Vice Adm. Chalmers—Our focus is surveillance in the maritime environment. Our niche within that area is acoustic surveillance using leading edge technology. We aim to be a solutions oriented organisation acting alone or teaming with others operating in the maritime environment to provide a total surveillance product in support of natural resources such as our fisheries, our EEZ, our sovereignty, our national security and defence.

The company is keen to work with Coastwatch, its client agencies and other Australian companies to enhance the effectiveness of maritime surveillance through application of relevant new and emerging technologies. Specifically, Sonacom has adapted defence technology and developed a range of acoustic buoys and other derivative products that may be deployed from ships or airborne platforms or can be laid on land.

The buoys may be used to detect, track, localise and classify ships or aircraft suspected of acting illegally through the monitoring of their waterborne and/or airborne noise emanations as they either cross barriers or operate in focal areas, and the buoys can be programmed to detect pollution. For example, the buoys may be used for over the horizon covert surveillance of illegal entrant vehicles, for detecting so-called black flights into Australia through remote and unguarded areas and for monitoring fishing activities in and around protected areas. The buoys are designed to be deployed in remote locations for periods up to six months, with data being transferred by RF links or satellite communications to land where the data can be displayed on COTS based display systems.

With regard to fishing activities, Sonacom recently conducted trials for and with the Great Barrier Reef Marine Park Authority in their area. And it is preparing a proposal for AFMA to deploy a number of buoys in the Southern Ocean in the area of Heard and McDonald islands to detect and monitor fishing vessel activity.

The company can also provide air deployed short-term buoys that can be used by surveillance aircraft. These buoys are about half the size of the current buoy that is used in the Defence

Force and they can provide a level of covert tracking capability that is not currently available. We have also developed a dispenser for these buoys and normal sized buoys. Elements of the acoustic end of the buoys can actually be used on land to detect land and air movement and they can be put in remote and sensitive areas.

We would propose that elements of our acoustic systems be an integral part of a broader Australian approach to an integrated surveillance system. As a supporting technology, Sonacom, in conjunction with the University of Sydney, is also developing a range of low-cost vertical take-off and landing unmanned aerial vehicles. The larger vehicles which we call the Mirli are unique in that they do not require a runway and can take off and land from any location including from a surface vessel. The vehicle is designed to carry payloads of up to 100 kilograms over a range of about 1,000 kilometres. The payload could include cameras or forward-looking infra-red sensors, synthetic aperture radar or deployable stores such as sonobuoys or flares, and we expect confidently to have a half-sized version of the Mirli flying in October this year.

A much smaller UAV has been designed as well and it is principally to carry an RF repeater to extend the range of radio communications between ships and sonobuoys or else to carry a camera to identify and then record any illegal activity. This smaller vehicle is known as the VectR. It is so planned and designed that it will fly for five hours with a 5 kilogram payload. The first prototype of that particular small UAV is planned to be trialled in April 2001. Sonacom would be very pleased to respond to the committee's questions.

CHAIRMAN—Thank you. The first question I have is: does the sonobuoy operate on active or passive sonar?

Vice Adm. Chalmers—Passive.

CHAIRMAN—Thank you. You say you pick up under water the sounds of all kinds of things. How about shrimp?

Mr Clarke—Shrimp is very easy. Shrimp is no problem. Shrimp are very noisy so it is no problem picking up shrimp.

CHAIRMAN—How much difficulty does that cause you in terms of filtering to get rid of the shrimp to pick up a small yacht?

Mr Clarke—Shrimp are usually in coastal areas. If you are engaged in coastal surveillance you are usually offshore, so it is generally a different situation and you do not actually have the shrimp causing any problems. The shrimp in Sydney Harbour, for example, would cause a problem if you were monitoring in Sydney Harbour.

CHAIRMAN—So if there are shrimp in the area, the sonobuoy is not—

Mr Clarke—It is less effective but it is a different frequency. You can actually allow for that in your programming of the buoy.

Vice Adm. Chalmers—One of the key facets of these particular sonobuoys are that they are digital and they are programmable, so a lot of that background noise can be programmed out for specific purposes. They really are buoys that are designed for a particular purpose.

CHAIRMAN—I suppose I should have said at the beginning, you do understand that we have not the technical capability on this committee to recommend to coastguard, the government or anybody else what kinds of assets we ought to be deploying, but it is important for us to understand the range of technology that is available which is why we are delighted to talk to you. Do you mind giving us some kind of cost information?

Mr Clarke—Basically, the buoys are very low-cost systems. A basic system can cost from \$2,000 up to about \$5,000 per buoy, which will last about five or six months.

CHAIRMAN—You have dropped a thing out of an aircraft and—

Mr Clarke—Yes. It self-deploys. It has an anchoring system. It then actually sits there and listens for certain noise activity. If it is a motorised vessel, for example, it is actually programmed to listen for a motorised vessel and can put a signature on that particular vessel if you require it. So if you actually want to re-identify the vessel 200 or 300 kilometres away, it is possible to do that because it has captured the signature of the vessel. It can also identify the trawling operation of fishing vessels and that is one of the things that we were doing on the Barrier Reef. On the Great Barrier Reef we could identify a boat that was actually illegally trawling, not just being in the area but trawling in the area. We have identified that process acoustically.

CHAIRMAN—Is that evidence admissible in court?

Mr Clarke—That is what we are still trying to discuss with them. We are not quite sure yet, but we are looking at that issue.

CHAIRMAN—Discussing with who?

Mr Clarke—The Great Barrier Reef people. They actually asked the same question.

CHAIRMAN—I'll bet they did.

Mr Clarke—The advantage of the buoys is that you can deploy them for long life and for long term. You can have a buoy in an area and it can actually tell you when an object approaches that area and if it is an aircraft or a surface vessel.

CHAIRMAN—We were given a map this morning of illegal fishing boats picked up from Broome around to the tip of Cape York. There is a huge concentration above Derby, a gigantic concentration. If you put sonobuoys in that area, isn't all the activity going to drive you nuts?

Mr Clarke—No, you would put them 10 or 15 kilometres apart. You would have two buoys to triangulate anyway; you would need them apart. But you would get a lot of activity, yes, you are right.

CHAIRMAN—Kilometres or miles?

Mr Clarke—Nautical miles.

CHAIRMAN—Aren't you likely to get too much data for anything to really be useful?

Mr Clarke—You get a lot of data, particularly if they are all together, but you would at least know that there is a lot of activity in the area which, in terms of surveillance, is what you want to know. Generally, you can identify, because of their signature, individual units moving around. They will actually come through as separate signals. That is something we are working on at the moment, to put the acoustic signature into the processing capability of the buoy. You can identify probably six at one time, but with more than six it becomes a little bit difficult. It is really early days with this technology. We are probably leading the world in this sort of area at the moment. There is nobody else actually doing this, so we are actually quite advanced. We have got interest from all over the world because we can do this at a very low cost. It is a low cost option for most authorities and coastguards, for example.

CHAIRMAN—Is Coastwatch trialling any of your—

Mr Clarke—No, not yet. We have just done the trials on the Barrier Reef. The Broome pearling and fishery groups want us to do a trial up there, and I have just put in an application for funding for a research project with AFMA to put some buoys in the Southern Ocean to monitor an area for 24 hours a day for six months using a satellite link back to our control centre in Sydney and just letting them know if anything occurs in that area.

CHAIRMAN—If you are putting sensors out in the Southern Ocean, you have got a huge expanse of—

Mr Clarke—It is only within that area of, say, 20 nautical miles you will actually be monitoring. But it is only a trial program to identify those fishing areas that may be threatened by illegal fishing.

CHAIRMAN—Wouldn't you have to get lucky?

Mr Clarke—We don't know; it is only a trial. We can put 10 out there, or 20. This is just the first trial in doing that. There are very extreme conditions down there. We have to build this very specialised buoy, and that is really the first stage—to build it.

Vice Adm. Chalmers—The water is very deep and so the buoys cannot be anchored. They will have to drift on a sea anchor and their position will be determined through a GPS that is in the buoy. This is a trial at the moment, but certainly it would help in the surveillance of that area from a long distance.

CHAIRMAN—Of the ones you do anchor, how deep—

Mr Clarke—Three hundred metres.

CHAIRMAN—That would be fairly limiting, wouldn't it?

Mr Clarke—For coastal surveillance, no, and in north of Australia, no, but in certain deep water areas it is a problem, particularly in the Southern Ocean.

Vice Adm. Chalmers—Once you get off the continental shelf.

Mr Clarke—That is right.

Senator HOGG—I understand they have got a six-month life?

Mr Clarke—Yes.

Senator HOGG—And they cost in the order of \$2,000 to \$5,000, I think you said.

Mr Clarke—That is approximate; it depends what you want.

Senator HOGG—Are they susceptible to being swept up in trawl nets and the like?

Mr Clarke—Of course they are, yes.

Senator HOGG—So they could go out of action fairly readily in that circumstance.

Mr Clarke—You do not put them in the main fishing areas; you put them outside them. That is one point: you place them in key areas.

Senator HOGG—I was going to say that you would have to have some sort of strategy as to where you placed them.

Mr Clarke—Sure.

Senator HOGG—You would have to work out some sort of group pattern. If you look at the map that was referred to by the Chair, you will see some areas where it seems to be wall to wall shipping. I would imagine that some of those buoys would be knocked out simply by vessels running straight over the top of them.

Mr Clarke—Possibly.

Senator HOGG—I am trying to get a feel for this because it seems that you are saying that you would have to have a strategic plan as to where you were going to place them depending on what sort of outcome you required.

Mr Clarke—Yes.

Senator HOGG—I am not saying that you are suggesting that these buoys be placed right along a stretch of coast; otherwise, to get an effective result from them, you said it could be hit and miss.

Vice Adm. Chalmers—Yes. The plan is that each pattern of buoys that you lay would consist of different buoys depending on what outcome you were seeking. You could lay them in barriers in particular areas where you knew fishing boats came through or illegal boats took passage. You could put them in focal areas as well, and you would use a different pattern of buoys for that. The chances of hitting a buoy are really quite small. The chances of snagging one in a trawl might be higher, but the chances of accidentally running over one would be like winning the lottery, I would suggest.

Senator HOGG—That is about my chance, I can assure you. I am trying to find out where these buoys could be used. If you are going to place them in areas where fishing is prevalent, you run the risk of them being caught up. If you are going to place them in non-fishing areas, you will probably be placing them where the suspect vessels do not go at all.

Vice Adm. Chalmers—In talking about the fishing buoys, a large number of areas in the Great Barrier Reef Marine Park, for instance, are banned to fishing. Some of those are quite remote areas and the marine park authority are very keen to monitor those areas to see whether anyone is fishing in them—they believe they are. They also believe there are areas up in the northern section of the marine park where transiting prawn trawlers go through and take catches when they are not licensed to do so. Just by having a barrier across those areas, one can detect whether boats are going into them. If we were using the particular fishery buoy, it would be possible for us to determine what their activity was. Of course, that is with regard to fishing boats.

With illegal entrants and others, I think the task is a little easier because you are looking at the areas towards which those illegal entrants are moving, and they become focal areas themselves—for instance, Ashmore Reef. A couple of these buoys off Ashmore Reef might not be too bad an investment in order to determine if and when people are using Ashmore Reef as a drop-off point.

Senator HOGG—I presume they detect both on top of and below the water.

Vice Adm. Chalmers—Yes, they will detect noises on the water and beneath the water. In fact, we have had success in the detection of passing aircraft as well.

Senator HOGG—At what height?

Mr Clarke—Up to 30,000 feet. Height is not a major issue. The sound comes down and travels through the water as well, so you get it on two levels. So possibly 40 miles away you could pick up an aircraft. Jet aircraft are more difficult to identify, but with a twin-engine aircraft you could pick that up very easily. You could tell the type of aircraft, its direction and its speed.

Senator HOGG—As a result of the placement of these buoys, can you tell the direction and the speed of the vessel?

Mr Clarke—Yes, you can. You need two of them to do it because you are actually triangulating, but it is quite easy. We can do that. We detected a number of helicopter movements in and out of Townsville on this recent trial as they flew around the area. We could

monitor them flying around. They are quite easy to identify. You could tell it was a three-rotor helicopter by the acoustic signature.

Senator HOGG—The other question I had was in relation to the movement of large animals such as whales and things like that. I presume they are detected and send out their own signal as well.

Mr Clarke—Yes. They are quite easy because they have a particular signal that they send out. The same with dolphins and tuna. Some fish species are very difficult, but whales are quite easy.

Senator HOGG—Why only a six-month life? Is that the result of the type of battery that they operate on?

Vice Adm. Chalmers—It is a huge advance from the current 4½ hours.

Senator HOGG—I would imagine that these are the sorts of advances you make, but are they operated by solar energy?

Vice Adm. Chalmers—They are solar powered and batteries, yes.

Senator HOGG—And the maximum life at this stage is six months?

Mr Clarke—Yes. There is also the situation where you have growth on the buoy and that will weigh it down; therefore, we have an anti-fouling system. But it will last approximately six months, or maybe eight months, we do not know. That is also a consideration.

Senator HOGG—Are they retrievable and reusable?

Mr Clarke—Yes.

Senator HOGG—So they must emit some beam or beacon or signal.

Vice Adm. Chalmers—Because the data is collected in the sonobuoy and then passed back by an RF link, it is either direct, it is radio—you could send it on telephone actually—or satellite communications. Those that are free floating have a small GPS transceiver in them and can actually transmit their position.

Senator HOGG—One of the things you would have to weigh up would be the cost of recovery if you placed it in the Southern Ocean?

Mr Clarke—Yes, but if you are looking at the P3 aircraft, they cost about \$60,000 an hour. We are talking minuscule amounts of money to put the buoys in the water, and these will monitor for 24 hours in a location.

Senator HOGG—I accept that, but it seems the advantage of the system is that it is portable, it is durable, and it can be dropped from a plane.

Vice Adm. Chalmers—Yes.

Senator HOGG—The advantage there is that one puts it at a distance rather than being necessarily close to your shoreline. You have then got a fair cost in terms of getting out to recover it.

Mr Clarke—Yes.

Senator HOGG—Have you done any figures on that yet?

Mr Clarke—No. The current buoys used by the RAAF actually sink after 4½ hours. This buoy can be designed to sink if you want it to sink; it is no problem. After six months you can tell it to sink and it will just sink itself.

Senator HOGG—And you come along later and pick it up?

Mr Clarke—No.

Vice Adm. Chalmers—Forget it. It is a small cost.

Mr Clarke—The cost of recovery is far greater than the cost of the buoy.

Senator HOGG—That is what I am getting at. You are looking at something here that is disposable.

Vice Adm. Chalmers—It is disposable.

Senator HOGG—It is really a disposable unit, it is not something you really want to recover.

Mr Clarke—If you are close to shore you can. You can go out there in a boat and replace them every few months and update the batteries or whatever. So you can buy a set of buoys and use those for a number of years. They just have to be maintained.

Vice Adm. Chalmers—The sort of place that you might do that might be around some of the pearling farms or the abalone farms in Australia.

Mr COX—Is a military buoy optimised to be able to detect vessels at a greater range and is that the reason for it only lasting 4½ hours?

Mr Clarke—The reason it only lasts 4½ hours is that it is normally dropped by a P3 or a Sea Hawk helicopter which has only a particular range and time in the air, and then they go back and land and the buoy sinks because of that. That is basically it. They only want it for one particular operation—when looking for a submarine, for example.

Vice Adm. Chalmers—The current military buoys are quite large and they do only have that particular life. They are still using the battery technology that they were developed with many years ago. This is really a step forward which is a digital buoy. It can be programmed for a

particular purpose, it is small and it is very adaptable. In these buoys that last for six months, what we are actually doing is packing the sonics from the small buoy into a full-sized buoy. That is how you get the sea anchor and all the other bits and pieces that you need in the upper end of it.

Mr COX—Somebody managed to drop a buoy through a house in Pasadena in Adelaide about six months ago. It landed on somebody's bed, fortunately unoccupied at the time, and did quite a bit of damage. I stepped out, so I do not know whether you were asked questions about the buoys for detecting marine pollution.

Vice Adm. Chalmers—No, we were not. We will have the ability to adapt one of the buoys so that it can do that. Let me give you an example of where you might use it. With the oil spill in Sydney Harbour earlier this year or late last year, one buoy in Berry's Bay would have detected that oil as soon as it started spilling on the water and could have set off an alarm. You could do the same around oil rigs at sea. You could have a surveillance system, which might consist of a mixture of sonar buoys and maybe radars and, indeed, on the sonar buoys you could have a pollution detection device which would detect any oil spill in that area. It is possible for us to actually fit to this buoy a device which can monitor the quality of water. An important application of that is the big aquaculture farms, particularly the ones that move around that do bluefin tuna.

Senator HOGG—What about water temperature?

Mr Clarke—That is very easy. With salinity, water temperature and other environmental parameters, as long as you have the sensor and the current electronic board it can accept four or five different pieces of information from different sources and send it up via satellite or by RF link.

CHAIRMAN—What is the transmitter?

Mr Clarke—It is actually compatible with the RAAF's transmitting systems. All the information can be received by the defence forces. It is used as a conventional RF system or else a satellite link using the Argos satellite. Basically, that is what we are using at the moment.

Mr COX—With the oil monitoring, would it be feasible for a large area, for example, to put them in a fishing lane and, therefore, to detect whether anybody who went past that point was discharging ballast?

Vice Adm. Chalmers—I would see it as part of a larger system. You might be monitoring traffic and, at the same time, monitoring water quality after vessels had gone through. My view would be that you would do it in constrained areas. To lay a barrier a couple of hundred miles across would be not very cost effective except where ships are going through constrained areas such as certain areas in the Barrier Reef or down in Bass Strait, for instance, or where the shipping routes go close naturally to promontories such as North West Cape.

Mr COX—Have you done any work on where illegal discharges are usually undertaken? Do they happen to be consistent with those sorts of places, or are they just a totally random event?

Vice Adm. Chalmers—No, we have not done any work on that. Our work has been in developing what looks like another application for the range of buoys. The buoys are just part of a system; indeed, we can take parts of the acoustic parts of those buoys and put them on land for the same sort of purpose.

Mr Clarke—Acoustically, we can also identify the bilges opening. If a ship is going by, we can identify the vessel and the sound of the opening of the bilges. That is something that can be easily identified, so we can know exactly which ship had, say, polluted with oil.

CHAIRMAN—Do you hold your marketing or capability discussions with Coastwatch or with its client agencies?

Mr Clarke—We have given a presentation to Russ Shalders group and hopefully we are giving them a demonstration in Sydney within the next month or so, post Olympics. We should be giving a few more demonstrations—there is one in Western Australia and perhaps one in South Australia in a few months as well—for different parts of the fishing industry and surveillance industries.

CHAIRMAN—You have been talking to Coastwatch client agencies rather than Coastwatch?

Mr Clarke—No, we have spoken to both.

CHAIRMAN—Thank you. It is fascinating stuff and it looks like you have a huge potential. We wish you all the very best and worldwide success.

Mr Clarke—Thank you.

CHAIRMAN—We hope you manufacture lots and export.

[3.23 p.m.]

CHALMERS, Vice Admiral Don, AO, RANR, Chairman, CEA Technologies Pty Ltd

FOSTER, Mr Mark, Marketing Manager, CEA Technologies Pty Ltd

SPENCER, Mr Robert Reginald Peter, Business Development Manager, CEA Technologies Pty Ltd

CHAIRMAN—Welcome. I will make the same statement I made a few minutes ago to Sonacom, and that is that this committee is in no position to advise Coastwatch or its agencies or Defence or anybody else on what sort of technology they ought to buy, but it is useful for us to understand the range of technology that is available today so that we can better understand how we might deploy assets that have the kind of deterrent that Australia needs, or at least can afford. Thank you for your submission. Have you, by any chance, a brief opening statement?

Mr Spencer—I do, thank you.

CHAIRMAN—Can you make it brief?

Mr Spencer—I will.

CHAIRMAN—Thank you.

Mr Spencer—First of all, we would like to thank the committee for the invitation to give evidence today. Like the preceding presenters, we are focusing on the new technologies which might improve the performance of Coastwatch. I would like to talk about—not now, but maybe during our discussion—the relationship between the technologies and the improvement in performance.

CEA has been here in Canberra for about 17 years. We think it has a pretty good track record in research and development, providing major electronics and surveillance systems to both civil and military customers, both here and overseas. We have radars, communication devices and special signal processing equipment. As you said, we built it in Fyshwick in Canberra, and it is fielded around the world in a number of fixed coastal sites already and in mobile platforms that are rapidly deployed across a wide range of physical environments around the world—that is by one of our major customers. We are also currently involved in some major proposals for coastal surveillance systems in overseas countries, in conditions that are very similar to our northern environment, and they are designed against just the sort of threat that you have been talking about. We are doing this both in our own right and with some major industrial partners from other countries.

Our basic contention is that we, with a number of other Australian companies, have the technology now. It is new, it is off the drawing board, it is in the field and we think it could have a significant impact on Coastwatch's performance, particularly if we can blend it into an

integrated number of systems—not the Holy Grail of having the one big system, but an integrated number of systems. The ongoing research and development commitment that all of the companies have shown is that there will be even newer systems later on. We are not just going to build the first system and forget about it; we will be hopefully building newer systems with the threat as it emerges in the future.

One of the things that we have talked about is a national venture, like this Multi-Operational Surveillance and Interdiction Capability, which we have termed MOSAIC. Not only would it provide a pretty good barrier to protect the country but it would also send a clear international message, to a number of people who might want to come down here, that Australia is very serious about protecting our national interests. We are thinking that there would be great value if we could get a team of Australian industry representatives and all the various stakeholders to work together in a very focused way to set up this system of systems that would do the job that we are all trying to ask Coastwatch to do.

CHAIRMAN—Thank you. Would you mind, in plain English, explaining MOSAIC?

Mr Spencer—Basically, at the moment it is a conceptual model. It is going to fuse all the information from the various sensors. We have heard about sonobuoys, we have our conventional radar systems, JORN, the surface wave radars, conventional rotating radars—that we indeed use—and electronic detectors, acoustic detectors, thermal and visual imagers, and we basically feed these. What we call our ‘data fusion technology’ blends that together, so that you have one coherent picture. You have not got, ‘What is the sonobuoy picking up? What is the radar picking up?’, and everybody spending all their time trying to work out that it is actually the same target. The sort of technology that we use blends that all together. We have sold about 56 of these sorts of systems to the US Navy, and they are part of their rapid deployment forces around the world. It will take the acoustic, radar, electronic support measures, thermal and visual, and put it all into one picture, so that they know exactly what is happening around them, and they can send their reactionary or proactive forces out.

MOSAIC is, ‘Let’s get this all together, so that each of the command organisations—like Coastwatch headquarters, Defence or whoever else wants to be able to see the big picture—can make their appropriate responses.’ It is a coherent picture. If there is a target somewhere that we are talking about, it is the same one, in the same geographical position.

CHAIRMAN—Outside of a screen, is it just software?

Mr Spencer—There is software and some hardware.

CHAIRMAN—There is some hardware?

Mr Spencer—Yes.

Senator HOGG—Is there a system external to the software and hardware that the chairman is referring to? Do you have stations? I am trying to visualise what you are talking about. I have this picture that, when you are feeding everything into a machine, you are taking various signals from various sources and translating those signals into one piece of information that is readily understandable and discernible to people. That, to me, is a smart way of intercepting various

signals and using them in a better way. I am wondering whether you have got something that goes beyond that and is an external system in its own right, which picks up signals.

Mr Spencer—It is not an external system per se. What we are talking about is a number of either fixed sites—say, radar sites or sites with acoustic sensors on them—or some mobile sites that you can rapidly deploy by land, sea or air to a point where intelligence says, ‘Hey, we’re going to have a problem here. We don’t have any sensors there today,’ so what we do is deploy that system there, or it could be on a patrol boat. Some of the new technologies in the software are such that, if you have got a radar contact there and a radar contact there, it will tell you at beyond visual range that that is a cargo boat and that one is a SIEV or a SUNC. So, rather than chase every radar contact you can see, you will know exactly what it is. We are talking about a bunch of fixed and mobile reactionary or proactive sites that you can position. But they can also be fed into the JORNs and the surface way radars.

Senator HOGG—But it really depends on having sufficient sites in the first instance to get the required amount of information.

Mr Spencer—It does.

Senator HOGG—How many sites would we be lacking to get the sort of coverage that you envisage we might need?

Mr Spencer—When you say, ‘the sites that are lacking’, I cannot give you answer directly on the Australian environment but could I make an analogy of some of these major systems that we are proposing. If they have a particular threat and they have an idea of where they think this threat is coming from and the nature of the threat, they come to us and say, ‘Here is our map of the trawl environment. You tell us, against that particular threat, what you need to supply to the total environment.’ What we do is look at the ranges of the various radar and acoustic systems and place a map so that, with a great degree of probability, they will be able to detect that particular threat. To try and answer your question, if our threat is in, say, the north-west sector, which is where we think all the threat is coming from, I think you would probably have about half a dozen sites from Darwin through to Broome.

Senator HOGG—As few sites as that would suffice?

Mr Spencer—Yes.

Senator HOGG—What would be the capital intensity at each of those sites? Would it be large?

Mr Spencer—One of the issues that we always look at is the capital infrastructure, and then there are the people and the provision of power and all that sort of stuff. What we try to do in designing our systems is make them people free and solar powered. We always make our systems operable from 28 volts DC so that they can be solar or wind powered. They are autonomous systems that can operate without having an operator right there on the site, so we can save a lot in terms of people. The new phased array radar that we are developing now is something that looks like a mobile phone site, so nobody can actually see it is there.

Mr COX—I wish my constituents felt that way about mobile phones!

Mr Spencer—Maybe up north.

Senator HOGG—Do they work day or night?

Mr Spencer—They work 24-hours, seven days a week. I think that is the beauty of both the radar and the acoustic sensors.

Senator HOGG—Do they work differently day and night? Is the interpretation different?

Mr Spencer—Not necessarily.

Mr Foster—Not off a radar system. It does not matter. It works day or night and will give you the same response.

CHAIRMAN—Have you talked to Navy about fixing their problems with the combat control system on the Collins class?

Mr Spencer—No, we just provide a nice antenna. We are very good at designing radar antennae.

CHAIRMAN—With the greatest respect, the combat control system is a command centre that takes in a whole bunch of sensor inputs and has some memory capacity to decide footprints and decide what is a target or not and track it.

Mr Foster—We have put in submissions to Navy about that.

CHAIRMAN—Fascinating.

Senator HOGG—You are having a good day.

CHAIRMAN—It is all win.

Senator HOGG—Can I just come back to where we were. What would be the sorts of costs that would be involved to get that six station coverage, 24 hours a day, seven days a week, 365 days a year? What sort of costing?

Mr Foster—For a long range radar site, we are probably talking about \$1 million to a \$1½ million a site.

Senator HOGG—\$1½ million a site.

Mr Foster—Yes. So something up to around 10 for six systems.

Senator HOGG—And then you would integrate that with what is coming out of JORN and maybe the acoustics.

Mr Spencer—Or the other way. And the acoustics systems as well.

Senator HOGG—Yes; you would integrate that into a system.

Mr Spencer—Yes.

Senator HOGG—Are you interrelated with the last witnesses as companies?

Mr Spencer—Who is that, sorry?

Senator HOGG—The previous witnesses.

Vice Adm. Chalmers—Only that I am on both of them.

Senator HOGG—Only that you are on both of them—you are the common thread there.

CHAIRMAN—You are calling him a thread?

Vice Adm. Chalmers—I thought you were going to say the lowest common denominator.

Senator HOGG—No, I did not say that. I would never say that about you. You know that. To get the best out of our system, we need a number of options; is that what you are saying?

Mr Spencer—We are saying a number of different—

Senator HOGG—A range of options?

Mr Spencer—A range of options and a range of different sensors, which have all got their pluses and minuses—for example, this data fusion thing that I keep talking about. For instance, if you have got three different radars all in different locations but overlapping, a suboptimal detection—that is, they would not actually declare it as a track; they would say, ‘That is a bit of noise; this radar, this radar and this radar pick them up.’ Each of them independently would not do it but with data fusion it would. Therefore, your ability to detect is better, so your capability and performance would even be increased because of what we call the data fusion site. On page 8 of our supporting information—and I trust you have got a copy of this—there is a small system that we have got on one of the—

Senator HOGG—I am sorry, I have not got a page 8. I have got a page 4 of 4.

Mr Spencer—I am sorry; it is in the supporting information.

Mr Foster—I have got a couple of other copies that we can provide.

Mr Spencer—Basically, what we have got there is a HMMW with a little radar on an extensible mast that the operators park on the edge of the waterside and they leave it and go back to base. You automatically switch it on and raise the mast. You turn it on and off as you require and every report is automatically sent back to base. What was the system cost there?

Mr Foster—They are only a few hundred thousand dollars a system.

Mr Spencer—It is on page 8.

CHAIRMAN—You said that it is commercial-in-confidence. But this is a public hearing.

Mr Spencer—Some supporting information?

CHAIRMAN—It is up to you. It is your information; it is not mine. I just felt obliged to point that out to you. That is why we do not have it in front of us—or we did not.

Vice Adm. Chalmers—And that cost of course would increase as you add other sensors to that mobile and deployable unit. And so if you add an acoustics system—

CHAIRMAN—I assume you would have no trouble taking a drone or whatever we call them now.

Vice Adm. Chalmers—UAVs.

CHAIRMAN—I am too old; I am too far behind. You would have no trouble taking a UAV and taking radar inputs from that or surface radar or sonar or active or passive or whatever—is that correct?

Mr Spencer—Correct.

CHAIRMAN—Are you proposing that we get everything except the *Fremantle* so we can go out and bring in the illegals?

Mr Spencer—We were up there talking to the patrol boat people recently. One of our new technologies is called the ship classification system, which is on one of the Navy's frigates at the moment. It does what I said before: tells you whether it is a SIEV, a periscope, a supertanker or something like that. The response we got from the people was interesting—I am now trying to relate these particular systems to improvements in the performance of Coastwatch.

The unsolicited response that came from the patrol boat CO and his navigator was that they go out there, pick these things up and then have to drag them all the way back to Darwin or back to port somewhere. Our system will allow them to link that picture with the geographic information—where they have made the apprehension—and they will link that straight back to headquarters by a normal telephone satellite, so it is not a horrendously expensive link system. They said, 'Oh, good, we could probably get approval very, very quickly to take the people off the boat and sink it.' That would save a problem for Quarantine because it would not have to bring one of these boats back in. They obviously believe that something that has relatively low-cost capability will really help their job and save them a lot of fuel, time and effort.

Mr Foster—The key message is that there are some gaps in the current system. However, we are trying to say that there are other technologies that we can bring in to fill the gaps cost-effectively. We are not saying get rid of aeroplanes or boats; we are just saying that there are

gaps in the current capability. It seems like the key aim is to try to plug some of those gaps—or as many as we can afford—cost-effectively. We are offering a range of technologies but also a way of bringing all of the information back so that it is easily digestible and so that you can use your forces in the most effective way.

Mr COX—Do you think there is a cheap solution to the unidentified aircraft movements problem? Is the technology cheap enough to be dispersed across a wide area and operated remotely so that you can get on top of that problem and then just need the response capability to deal with it?

Mr Foster—You could certainly do that but you would still need knowledge of the likely areas where unidentified aircraft are coming from. They are likely to come in via a number of routes; they are not necessarily likely to cover the whole of Australia. If you work out where your alarm zones need to be then, yes, you can do that very accurately. One of the things that our system can do is identify aircraft types—they fit profiles.

We supplied a vital asset protection system to the US. They have said to us, ‘We want to know when a particular threat is within a certain range and set off alarms. We don’t care about other aircraft or certain types of helicopters or whatever, but we want to know that particular threat.’ The intelligence is there from current technology to do that with phased array radar systems.

Senator HOGG—So you preprogram it with a certain set of signatures that you expect it will pick up, and when it picks up those signatures—

Vice Adm. Chalmers—It alarms.

CHAIRMAN—Do aircraft have noise signatures?

Mr Foster—Yes, every aircraft has.

CHAIRMAN—I was confident that you were going to say yes.

Senator HOGG—Does it matter whether they are jet propelled or turbo-prop aircraft?

Mr Foster—There are different signatures; different frequencies.

Senator HOGG—Just different signatures? Does the size matter as to whether they are detectable or not detectable?

Mr Foster—No.

Vice Adm. Chalmers—In fact, each individual aircraft has a different signature. It is quite easy to detect a particular type of helicopter and, when you have detected it once and identified it, you can identify it as an individual aircraft on every subsequent occasion.

Mr Foster—Sorry, I will clarify my answer: a small target has what is called a smaller radar cross-section than a large target.

Senator HOGG—That is what I am asking about. I am really getting to the issue of the resolution of your radar.

Mr Foster—It is not just resolution; it is a whole combination of things which say that it is basically easier to pick up a larger object because it has a bigger return.

Mr Spencer—The other thing with the new phased array radar is that a normal radar will sweep around a circle and you have a fixed amount of energy being radiated. With the phased array radar you can dwell; you can sit on a particular direction and put the energy in that direction only, and that will enhance your performance in that particular direction. So picking out the smaller target is optimised.

To answer the question about value for money, all our systems are basically COTS—commercial off-the-shelf—devices and systems. We are not building specialist devices that go into our new radar. It is nearly self-owned technology—the components. So by using commercial off-the-shelf products, we are able to keep our costs right down. We are not building a special-to-type air traffic control radar or military radar. So we believe we can keep our costs down. With respect to the new phased array stuff, we are probably about a quarter of the price of some of our competitors overseas.

CHAIRMAN—With respect to Mr Cox's question about unidentified aircraft movements, would you agree that once we get JORN on line, theoretically 24 hours a day, we have upped our detection capability several thousand fold?

Mr Spencer—We would agree with that, but I am sure there will also be recognition that not all areas are covered at all times of the day with the ionospherics and that sort of stuff, and there will be gaps in the coverage. Having regard to the little knowledge that I have of JORN, there will be the need for some complementary systems. Again, it is only radar. Complementarity with acoustics systems and other systems—electronic intercept equipment—would get the best value out of the radars as well as the other systems.

CHAIRMAN—Enhancement?

Mr Spencer—You may use that word.

Vice Adm. Chalmers—We really need to understand that JORN would be just one element of the total package. We may have had some success in the past, but not a lot of success, with conducting intercepts using the JORN radar. It really needs to trigger other sensors. In the same way, my experience in the past has been that JORN itself operates best when it is triggered, either by some other form of intelligence or by electronic surveillance, which might, for instance, detect an aircraft rolling down a runway because it is emitting some form of message. Triggering JORN that way is really the best way to use it.

Mr COX—Or it is being watched.

Vice Adm. Chalmers—No, not while it is being watched; someone picking up its transmissions, for instance, from a long way away. That is the best way to make JORN work—to trigger it, and then it provides a very good answer. That is certainly my experience of it. JORN is just one element of a total system. You need to refine that JORN data to be able to actually prosecute it effectively.

Mr COX—Going back to the signature for individual planes, have you got it down to being able to get a particular signature from a particular plane—not just a plane type, not just a Cessna 472, but a particular Cessna 472?

Vice Adm. Chalmers—That is possible.

Mr Foster—We have done it by classification, into categories. Once you have a signature of an aircraft, it is possible to go to that next stage, but you would have to have it in the first place. You would have to have known that that aircraft is the aircraft you want to track in the future and get its signature.

Mr COX—I was thinking that we might know what were all of the light aircraft operating on pastoral stations and by mining companies in the north. You could go around and collect their signatures. Assuming that they were not going to be the people who were going out and coming back with drugs or illegal immigrants, whenever their signature was detected, that would be ignored, but when any other signature was detected that was not known, then that would trigger an alarm.

Mr Spencer—They are the sorts of things that we build. Because it is all software controlled, particularly the newer radars, there are some planning tools that go with it. In that way you can optimise the radar for a particular threat. You will know that if it is late at night there are not going to be too many crop dusters doing their jobs. If you pick that it is one of the crop dusters but it is night-time, you are not going to discard it, you are going to say there is a probability that either the thing has been knocked off or—

Senator HOGG—Or he is a funny farmer.

Mr Spencer—He is a funny farmer.

Vice Adm. Chalmers—Or he is moonlighting.

Mr Spencer—There is that ability to optimise.

Senator HOGG—I knew you would enjoy that, Chair.

CHAIRMAN—Gentlemen, thank you very much. We have a rough idea of what you have been talking about.

Mr Spencer—We will make the offer that the committee might like to come out to Fyshwick. It is not very far away. You may be able to explore some of the issues a bit further. We would like to issue that invitation.

CHAIRMAN—Thank you for the invitation. We will see if we have the time.

Resolved (on motion by **Mr Cox**):

That this committee authorises publication, including publication on the parliamentary database of the proof transcript of the evidence given before it at public hearing this day.

Committee adjourned at 3.51 p.m.