CHAPTER 13

NUCLEAR WEAPON ACCIDENTS - OTHER MATTERS

TERRORIST ATTACK

Introduction

13.1 A number of submissions referred to the possibility of a terrorist attack on a visiting nuclear weapons capable warship.[1] None suggested what might motivate such an attack, or attempted to justify the possibility by reference to what is known of terrorists, their motives and their actions. Only one suggestion was made to the Committee as to the form that a terrorist attack might take: the firing of a shoulder-launched anti-tank weapon at the nuclear warhead of a Tomahawk missile in its armoured box launcher on the deck of the USS Missouri.[2]

13.2 A radiation release deliberately caused by terrorists would not, strictly speaking, be within the phrase 'accidental release' in the Committee's terms of reference. Nonetheless, the Committee considered the possibility. It did so under four headings: history, possible motives, possible methods, and possible consequences. It is impossible to consider all possible scenarios in detail and the Committee did not attempt to do this. Rather,

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1. e.g see submissions from the Peace Squadron (Sydney), p. 3; Esperance Nuclear Awareness, p. 1; H. H. Somer, p. 2; State School Teachers' Union of WA (Inc.), p. 2; Victorian Government, p. 3; Senator J. Vallentine, p. 23 (Evidence, p. 1066); Dr C. Hughes, p. 9; Ms C. Jordan, p. 1; Darwin Combined Port Unions, p. 1. See also Evidence, pp. 984-85 (Mr R. Bolt); p. 1201 (Senator J. Vallentine).
2. Submission from the Peace Squadron (Sydney), p. 5. One of the authors of this submission, Mr P. Gilding, repeated the suggestion in his personal submission, p. 8 (Evidence, p. 1341). The same suggestion was made in Evidence, p. 1202 (Senator J. Vallentine).

its aim was to indicate briefly the reasons supporting its belief that the risk of serious damage or contamination to an Australian port from terrorism involving a nuclear weapon is minimal.

History

13.3 The history of terrorism suggests that an attack on a nuclear weapon is remote. Commentators who do not consider enough is done to ensure safety in nuclear matters nonetheless acknowledge this: 'no terrorists, either operating independently or with state backing, are known to have attempted major acts of nuclear violence';[3] and 'there has never been a verified attempt by outsiders to attack a nuclear weapons site'.[4] The occurrence of any type of terrorist attack in Australia has been far lower than many other parts of the world. There seems no reason to expect this to change in the foreseeable future. As a general proposition, terrorists have not used high technology methods of

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3. International Task Force on Prevention of Nuclear Terrorism, 'The Task Force Report' in P. Leventhal and Y. Alexander (eds.), Preventing Nuclear Terrorism, (Lexington, Lexington, Mass., 1987), p. 11. The Report considers, however, that 'navy tactical [nuclear] weapons are vulnerable to use by terrorists if successfully seized': ibid., p. 17. The Task Force was a non-government initiative with multinational membership. The US, Departments of Defense and Energy, Nuclear Weapons Surety: Annual Report to the President 1984, p. III-2 refers to terrorist threats that were not deemed credible enough to warrant a full response or which on investigation were found not to involve nuclear materials.
4. W. M. Arkin, 'Nuclear Security: The Enemy May Be Us', Bulletin of the Atomic Scientists, November 1983, vol. 39(9), p. 5. The submission from Victorian Government, p. 3 claims that there have been a few nuclear terrorist incidents but does not identify them. In the US, the FBI had investigated more than 70 nuclear threats of various types up to 1986. Of these, the Nuclear Emergency Search Team (NEST) was involved in 20, all but one of which proved to be a hoax. The one exception involved the theft of 150 lbs of low-enriched uranium by a disgruntled employee: Washington Times, 26 August 1986, p. 5, 'Scientists seek nuclear weapons'. The NEST is part of the response capability for threats where the response may involve locating nuclear material, such as a stolen or home-made nuclear weapon.

destruction to anything like their potential.[5]

Possible Motives

13.4 The motive for a terrorist attack on a nuclear weapon in an Australian port is difficult to conceive. Those opposed to nuclear weapons are unlikely to use those weapons as a means of causing harm.[6] Even if this view is incorrect, the greatest impact would be gained by attacking a weapon in a country where they are based with the hope of securing the termination of the basing agreement. The halting of port visits in a country that receives only occasional port visits would presumably be a less significant achievement, and therefore a much lower priority for anti-nuclear terrorists prepared to use nuclear violence.

13.5 An attack with the aim of seizing a ship-borne nuclear weapon is implausible because, quite apart from the guards and other security precautions, the weight of the weapons would

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5. e.g. R. K. Mullen, 'Mass Destruction and Terrorism', Journal of International Affairs, 1978, vol. 32(1), p. 87:

> One may ... look in vain for even modest use of portable missile launchers which have been around for decades. ... The numbers of incidents where rocket launchers are employed are rare, no matter in what terrorist cause they may be used. Moreover, their rate of use remains relatively constant. One therefore observes that the level of terrorist violence has remained over the years relatively static; only the frequency of incidents has increased in the past decade.

Although the Committee has not researched the point extensively, this appears to be as true now as when it was written. See for example Atlanta Journal and Constitution, 22 May 1988, p. 7, 'Experts: U. S. vulnerable to new, high-tech terrorists': US ambassador-at-large for counterterrorism, Paul Bremner, cited as saying that terrorists rely mainly on technologies of the past (pistols, hand grenades, and machine guns); when confronted with harder targets, terrorists have tended to switch targets rather than upgrade technologies.

6. See for example B. M. Jenkins, 'Is Nuclear Terrorism Plausible?' in P. Leventhal and Y. Alexander (eds.), Nuclear Terrorism: Defining the Threat, (Pergamon-Brassey's, Washington, 1986), p. 28:

> Terrorist groups in Western Europe have demonstrated their opposition to the deployment of new nuclear missiles, but they have done so with the traditional terrorist tactics of bombings and assassinations.

preclude them being readily removed from ships.[7] For one determined to seize a nuclear weapon, a relatively portable battlefield tactical nuclear weapon would appear to offer a more plausible prospect for easy removal.

13.6 The safety devices in the newer weapons would preclude them being detonated and therefore seizure would be relatively pointless.[8] A group with the sophisticated skills necessary to attempt a seizure with some prospect of success might well consider it easier and less risky to build their own weapon. Seizure of a weapon for hostage or ransom purposes seems implausible; there are far softer targets available for these

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7. for example, it takes a trained crew working on an open deck some 15 minutes to load each of the 1,300-plus kg missiles into its cell in the Vertical Launch System of a US surface vessel: P. W. Stiles, 'An Alternative to VLS UnRep', US Naval Institute, Proceedings, December 1987, p. 130 (currently 11 hours to load 44 missiles; best planned improvement will achieve only 6.2 missiles per hour). The launch weight of an ASROC is about 435 kg: Jane's Weapon Systems 1987-88, (Jane's, London, 1987), p. 571. See also N. Polmar, The American Submarine, (Patrick Stephens, Cambridge, UK, 1981), p. 139 for a photograph of 6.4 m, 1800 kg SUBROC being loaded aboard a US submarine: this indicates how difficult it would be to remove the weapon unless the terrorists had full control of the vessel and its surroundings for a considerable period. Detaching warheads from their launch vehicles would lessen the weight and size problems, but would require time, technical skill, and knowledge of the means of detachment.

8. Even the older weapons would have only a limited value. See L. Norman, 'Our Nuclear Weapon Sites: Next Target of Terrorists?' in A. R. Norton and M. H. Greenburg (eds.), Studies in Nuclear Terrorism, (G. K. Hall, Boston, 1979), p. 89, quoting a Defense Department source:

> The old ones might be taken apart by someone with expertise and he might be able to separate the pieces and reconstruct them. He could not detonate the bomb itself, however, because he would have to know the precise voltages and the necessary settings for that bomb.'

If the aim of the siezure is to remove the fissile material and repackage it in a home-made device, a further difficulty arises. The cruder the bomb, the more fissile material is required for a given size result. It is unlikely that terrorists could reproduce the very precise geometries and detonation pattern of the original weapon, so that it might well not give them enough fissile material to make a workable substitute.

purposes.[9]

13.7 It has been observed that 'simply killing a lot of people has seldom been a terrorist objective. ... terrorists want a lot of people watching, not a lot of people dead'.[10] There are, of course, exceptions to this, but these have generally involved killing across racial, ethnic or religious lines.[11] Any victims of terrorist-created plutonium dispersal in an Australian port would not constitute, even approximately, a single racial, etc. group. It is hard to see what public sympathy would be gained by causing such indiscriminate harm.

13.8 The indiscriminate nature of the harm would also militate against a possible aim of killing United States personnel aboard the warship in retaliation for United States actions elsewhere in the world. Because the plutonium would probably be dispersed away from the ship, only those personnel on

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9. cf. International Task Force on Prevention of Nuclear Terrorism, 'The Task Force Report' in P. Leventhal and Y. Alexander (eds.), Preventing Nuclear Terrorism, (Lexington, Lexington, Mass., 1987), p. 14: 'it is difficult to think of a demand that could be used to justify an act of nuclear violence'. This appears to refer to a nuclear detonation. See also R. K. Mullen, 'Mass Destruction and Terrorism', Journal of International Affairs, 1978, vol. 32(1), p. 85: the more that scenarios involving nuclear weapons used to hold governments or cities hostage by threatening mass destruction are examined, 'the more unlikely a proposition they seem to become'.
10. B. M. Jenkins, 'Is Nuclear Terrorism Plausible?' in P. Leventhal and Y. Alexander (eds.), Nuclear Terrorism: Defining the Threat, (Pergamon-Brassey's, Washington, 1986), p. 28 (emphasis in original). See also ibid., p. 29 (terrorists have had the (non-nuclear) means to kill large numbers of people for many years, yet few have done so); G. Wardlaw, Political Terrorism: Theory, Tactics and Counter-Measures, (CUP, Cambridge, 1982), p. 177 ('Although much popular writing on terrorism portrays terrorists as unscrupulous, insane and having an insatiable lust for blood, this is far from the truth'); ibid., p. 178 ('it seems that most terrorist groups do not see the killing of a few people ... as counter-productive, but have to date assessed the massacre of many people as being either out of proportion to their ends ... or counter-productive to their cause ...').
11. cf. International Task Force on Prevention of Nuclear Terrorism, 'The Task Force Report' in P. Leventhal and Y. Alexander (eds.), Preventing Nuclear Terrorism, (Lexington, Lexington, Mass., 1987), p. 13:
> most terrorists operating within their own borders would be inhibited from engaging in actual nuclear violence out of fear of losing popular support for their cause.

the open deck would be at immediate risk.

13.9 A motiveless attack might be suggested, that is, one not designed to achieve any rational objective. However, organising any potentially damaging attack on a visiting warship would require a degree of ability and intelligence. The expert view tends to be that 'psychotic individuals most strongly motivated to commit acts of nuclear terrorism would be the least able to carry them out'.[12]

Possible Methods

13.10 Methods present as many difficulties as motives. For the only scenario offered to the Committee, the anti-tank weapon attack, the weapon would have to be acquired, together with ammunition and training in its use. None are readily available in Australia. Many terrorists, particularly the more sophisticated ones, operate with some degree of foreign government support. But any sponsoring government might be reluctant to provide the weapons for a nuclear-related attack on a United States warship. Government sponsorship

> in itself might lead to caution in the employment of weapons of mass destruction, since such employment could very likely precipitate countermeasures of such severity as to topple any government associated with the act.[13]

13.11 Finding a secure launch site will present further

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12. J. M. Post, 'Prospects for Nuclear Terrorism: Psychological Motivations and Constraints' in P. Leventhal and Y. Alexander (eds.), Preventing Nuclear Terrorism, (Lexington, Lexington, Mass., 1987), p. 93. It is for this reason that examples of individuals running amok with firearms are not, in the view of many experts, regarded as plausible in relation to what would need to be planned for an attack on a visiting nuclear weapons capable warship to have any reasonable prospect of resulting in plutonium dispersal. Contrast the submission from Scientists Against Nuclear Arms (WA) and the Medical Association for the Prevention of War (WA), p. 10 (Evidence, p. 796).
13. R. K. Mullen, 'Mass Destruction and Terrorism', Journal of International Affairs, 1978, vol. 32(1), p. 85.

problems. Absence of security measures in the vicinity of the vessel could not be taken for granted.[14] Information that a particular vessel will be visiting may not be released until shortly before its arrival, limiting the opportunity for an overseas group to travel to Australia and establish themselves in time to launch an attack. The berth or mooring to be used may not be known until the time of arrival or very shortly before.[15] The visiting warship may be in port for only a short time, and if on a swing mooring will from time to time alter its position in relation to a fixed site on shore, increasing the targeting problem.

13.12 For reasons given earlier, it is highly unlikely that many Tomahawks in box launchers on a visiting warship would carry nuclear warheads, even if the vessel is carrying nuclear weapons.[16] The attackers are unlikely to have the opportunity to launch too many projectiles before a response is forthcoming. So the chance of hitting a launcher containing a nuclear warhead is much reduced. This, of course, would sharply reduce the incentive to mount the attack in the first place. Moreover, unless the terrorists had details of the armour on the launchers, they could not be sure that their projectiles could penetrate it, especially if they could not be confident of striking the armour at a ninety-degree angle.

13.13 The Committee is not suggesting that these and other difficulties make the mechanics of the proposed scenario absolutely impossible. However, on the basis of the above type of

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14. cf. Evidence, p. 1300.58 (Department of Defence): 'Consideration is routinely given by the relevant Australian authorities to the possibility of terrorist activity'.
15. Although nuclear powered warships may only use approved berths, whose location is public knowledge, there is no similar restriction on the berths that may be used by conventionally powered vessels that are nuclear weapons capable.
16. See para. 11.27 on the ratio of nuclear to non-nuclear Tomahawk missiles in the stockpile and on the lack of externally visible differences between the nuclear and conventional versions of the missiles, and also between their launchers.

analysis, the Committee does not share Senator Vallentine's view that a successful attack of the type suggested would be 'fairly easy' to mount.[17]

13.14 Other possible attack scenarios suffer from equal or greater obstacles. The policy of 'neither confirm nor deny' means that terrorists could not be certain if any nuclear weapons were on board a visiting vessel, and hence and hence could not be certain that there was anything to attack. It might be thought that the presence of nuclear weapons is most likely on a large vessel such as an aircraft carrier. But equally, the precise storage location on a large vessel would be essential information, yet is not readily available.

13.15 Storage in below-deck magazines renders the problem of attack more difficult without first boarding the vessel. Unauthorised boarding of visiting warships would not be a simple matter.[18] Particularly on larger warships, there is defence in depth against intruders reaching sensitive locations.[19] The United States Navy has anticipated terrorist attacks,[20] so the terrorists would have to expect a prepared defence and counter-

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17. Evidence, p. 1202 (Senator J. Vallentine).
18. For example, two peace protesters who attempted an unauthorised boarding of the USS Carl Vinson when it was anchored in Gage Roads reportedly found themselves surrounded by marines armed with automatic weapons: West Australian, 26 April 1985, 'Protest men reach carrier'. While no doubt the boarding attempt was more symbolic than in earnest, it does illustrate that access to visiting warships is not simple. See also Lt Cdr C. Staszak, USNR, 'Extra: Terrorists Attack USN Ship', US Naval Institute, Proceedings, June 1986, p. 35 for a description of current US Navy doctrine on the defence of its ships against terrorist attack while in port. He notes the doctrine is designed to deal with those seeking to disable the ship or steal its weapons. He criticises its ability to cater for 'an enemy whose objective is simply to kill or a sophisticated threat with a well-developed plan for executing a coordinated attack'.
19. Lt Cdr C Staszak, USNR, 'Extra: Terrorists Attack USN Ship', US Naval Institute, Proceedings, June 1986, p. 35.
20. e.g. Washington Post, 24 August 1987, p. 1, 'Navy Stages Commando Raids To Expose Its Security Flaws' (scenarios tested included a speedboat based attack on a nuclear powered/weapons capable submarine in a Japanese port); Detroit News, 22 February 1988, p. 3, 'Navy holds rehearsals to battle terrorists' (exercises simulating terrorist attacks on USS Enterprise in San Diego, including suicide-plane attack).

measures. The weapons are protected by armed guards and alarm systems.[21] All these factors would make the success of an attack aimed at seizing a nuclear weapon unlikely.[22]

13.16 As a general conclusion on methods, there are clearly less uncertain and less difficult methods of causing a lot of damage than attacking a nuclear weapon on board a visiting warship.[23] If the aim of the terrorists was simply to kill a number of United States personnel without regard to bystander casualties, there are easier ways of achieving this objective.

Possible Consequences

13.17 The consequences, assuming that the suggested attack was carried out, would not necessarily be severe. Those raising the risk of terrorism tended to be those who assumed that an incident involving a nuclear weapon would almost certainly cause mass casualties. Terrorists may share the Committee's more realistic assessment.

13.18 For the suggested scenario of an attack on a Tomahawk missile, the prospect of nuclear detonation is virtually eliminated by the safety features discussed in chapter 11. The

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21. e.g. see US, H of R, Committee on Armed Services, Defense Department Authorization and Oversight - Hearings on H. R. 1872, 13 March 1985, pp. 519 and 532 (Rear Admiral S. Hostettler).
22. cf. Evidence, p. 1300.58 (Department of Defence):
> The Department of Defence considers the guarding and other precautions taken by the nuclear weapon states to ensure the security of their nuclear weapons make it extremely unlikely that a terrorist group would be able to seize any nuclear weapons wherever they might be located.
23. International Task Force on Prevention of Nuclear Terrorism, 'The Task Force Report' in P. Leventhal and Y. Alexander (eds.), Preventing Nuclear Terrorism, (Lexington, Lexington, Mass., 1987), p. 14:
> there are a number of options for escalating violence before they [ie. terrorists] approach a nuclear threshold. Nuclear systems are but one among the high-technology options available to terrorists. Chemical and biological systems, for example, offer terrorists effective methods of threatening to kill or actually killing large numbers of people.

nuclear warheads used on Tomahawk missiles contain insensitive high explosive.[24] For the reasons noted earlier, it is doubtful if, even in the event of a direct hit by an anti-tank projectile on the armoured box launcher, the warhead's insensitive high explosive would detonate.[25] If the projectile managed somehow to ignite the missile's propellant, it does not follow that the warhead would be damaged.[26]

Conclusions

13.19 In the light of its consideration of the possibility of terrorist actions, the Committee found no reason to alter the conclusions set out at the end of the previous chapter.

WEAPON ACCIDENT PLANNING IN OTHER COUNTRIES

General Plans

13.20 A number of submissions noted that accident-response exercises for nuclear weapon accidents had taken place in the United States. Typical comments were:

> If the risk of accident is so remote, why does the U.S. military engage in simulated Nuclear Weapon Accident Exercises (Nuwax)?[27]

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24. US, Departments of Defense and Energy, Nuclear Weapons Surety: Annual Report to the President 1984, p. II-7.
25. See para. 11.55.
26. For example, a Titan II missile exploded in its Arkansas silo in 1980 but the warhead was recovered intact. Reportedly, a missile fuel fire in a Soviet submarine in the Atlantic in October 1986 caused the loss of the submarine, but no radiological releases from the missile's warhead were reported.
27. Submission from Coalition Against Nuclear Armed & Powered Ships, p. 6 (Evidence, p. 1378). See also submissions from Greenpeace Australia (NSW) Ltd, p. 33; Mr R. Bolt, p. 17 (Evidence, p. 967). Contrast the submission from the Medical Association for the Prevention of War (Vic), p. 2: US Navy failure to hold further NUWAX exercises suggests that it regards a nuclear weapon accident as very unlikely.

> Although the WA state government does not consider the chances of a weapons accident high enough to warrant contingency planning, the US Government obviously does, as is evidenced by its NUWAX exercises.[28]

13.21 Many submissions made reference to an article in the June 1986 issue of Current Affairs Bulletin which described the NUWAX exercises.[29] Reference was also made in the article to instructions issued in 1981 by the Commander in Chief of the United States Pacific Fleet.[30] These required nuclear armed vessels to establish a nuclear casualty medical team to respond to accidents involving detonation of the high explosive components of a nuclear weapon. Authors of submissions argued that if the United States considered it necessary to prepare for a naval nuclear weapon accident, so should Australia.

13.22 The Committee notes that the United States Navy, together with the Department of Defense, has 'a comprehensive plan to respond to a nuclear weapon accident'.[31] Britain also maintains detailed secret contingency plans for nuclear weapon accidents,[32] and regularly holds nuclear weapon exercises.[33]

13.23 The Department of Defence responded to the arguments based on the existence of plans in the nuclear weapon countries by pointing out:

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28. Submission from People for Nuclear Disarmament, p. 3 (Evidence, p. 1305).
29. L. Zarsky and others, 'Nuclear Accidents', Current Affairs Bulletin, June 1986, vol. 63(1), pp. 4-11 (Evidence, pp. 807-14).
30. ibid., p. 10 (Evidence, p. 813).
31. US, H of R, Committee on Armed Services, Subcommittee on Military Installations and Facilities, Hearings on H. R. 1409 to Authorize Certain Construction at Military Installations for FY 1986, 27 March 1985, p. 432 ('Response to a Nuclear Weapon Accident on a Navy Ship'). The plan is not specific to any particular port. Nor is it linked to any single accident accident scenario: 'it fits a broad range of events from a minor scratch to a massive fire' (ibid.). The plan as described appears to apply only in the US, but this may be because the description was prepared in response to a request relating to a possible accident within the US.
32. UK, Parliamentary Debates (Commons), 6th series, vol. 112, 20 March 1987, Written Answers, col. 635.
33. ibid., vol. 119, 15 July 1987, col. 1133.

> The NUWAX series of exercises, and the issues and problems which they have raised, all relate to accidents which might possibly occur in NATO countries, but which have no relevance to the safety aspects of visits by nuclear weapons capable warships to Australia. For example, NUWAX 79 simulated the crash of a USAF bomber carrying a nuclear weapon; NUWAX 81 simulated the collision of a light aircraft with a US Army Helicopter transporting a nuclear weapon; and NUWAX 83 simulated the crash of a USN Helicopter carrying a Navy nuclear weapon. The command and control and security issues involved in a nuclear accident on land in a host country are more complex than those for any conceivable nuclear weapons accident on a visiting warship.[34]

13.24 Countries involved with the manufacture, testing, transport, or handling of nuclear weapons, and whose forces may deploy with such weapons, require specific plans to cope with possible accidents. In the view of the Committee, it does not follow from the plans that exist in nuclear weapons countries and in relation to other countries in which the weapons are stored that ports visited by vessels in which nuclear weapons are held in secure storage also need specific safety plans. The level of emergency preparedness in Australian ports needs to be based on the risk that exists in these ports.

13.25 According to the Department of Defence, the lack of any detailed contingency plans in Australia is:

> fully consistent with the practice of other countries which accept visits by warships from the nuclear weapons states. As far as we are aware, no other countries make specific plans to deal with nuclear weapons accidents involving port calls by visiting warships.[35]

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34. First supplementary submission from the Department of Defence, section 4 (Evidence, p. 238.245). See also Senate, Hansard, 24 September 1986, p. 754. Australia had two observers at NUWAX 83: Evidence, p. 228 (Department of Defence). Australia has not taken part in combined nuclear weapon accident exercises with the US, nor have any such exercises been proposed: Senate, Hansard, 29 May 1987, p. 3269.
35. Submission from the Department of Defence, p. 28 (Evidence, p. 33).

No submission identified any national government whose policy controverted this statement.[36]

The New York Nuclear Weapon Accident Draft Plan

13.26 The Committee's attention was drawn to the draft plan prepared under the direction of the municipal authorities in New York City.[37] The need for consideration of nuclear weapon accident planning arose from the Navy's decision to homeport a nuclear weapons capable battleship group in New York harbour near Stapleton, Staten Island. It did not arise from nuclear weapons capable warship visits of the type made to Australia.[38] A decision to move to dispersed basing of major fleet units has led to plans to use other ports near large population centres as homeports for nuclear weapons capable surface ships.[39] In none of the other proposed homeports does there appear to be any official

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36. The Committee understands that Canada, and quite possibly other countries, have general radiological emergency plans which make reference to a nuclear weapon on an aircraft, ship or vehicle as one of the possible sources of an accident required to be dealt with under the plan.
37. New York City, Mayor's Emergency Control Board, Staten Island Naval Homeport Plan, (Draft, June 1988). The original draft (March 1988) was significantly revised. It should be noted that the municipal authorities in New York have control of many functions such as fire and police services that in Australia are carried out by State/Territory governments.
38. Occasional visits by nuclear weapons capable US Navy ships have taken place to New York over the years without, as far as can be determined from this distance, any serious suggestion that accident contingency plans be prepared. e.g. Coalition for an Nuclear-Free Harbor, No Safe Harbor: The Consequences of a Nuclear Weapon Accident in New York Harbor, (New York, March 1988) focuses on the need for planning entirely in the context of the homeport proposal, and does not consider the question of occasional goodwill-type visits.
39. As at early 1987, the homeporting plan had four major components:
    - a battleship battle group in Staten Island, New York;
    - a carrier battle group in Everett, Washington;
    - a battleship battle group, carrier battle group, and other ships in the Gulf ports of Ingleside (Corpus Christi) and Galveston, Texas; Lake Charles, Louisiana; Gulfport and Pascagoula, Mississippi; Mobile, Alabama; and Pensacola and Key West, Florida;
    - an expanded battleship surface action group in San Francisco and Long Beach, California; and Pearl Harbour, Hawaii:

    US, H of R, Committee on Armed Services, Subcommittee on Military Installations and Facilities, National Defense Authorization Act for FY 1988/89 - H. R. 1748 - Hearings, 18 March 1987, p. 621 (Department of the Navy).

proposal that nuclear weapon accident contingency plans be prepared.

13.27 For New York, there appear to be two major public issues: the need for a publicly available document explaining the degree of risk of a nuclear weapon accident, and the need for a contingency plan to deal with an accident of this kind. The Committee accepts that the first of these needs exists also in Australia. It hopes that this report will in large measure fulfil the need here.

13.28 Viewed from this perspective, the draft Staten Island plan consists of two parts: a 'hazard profile' (pp. 11-46), and a plan to deal with the identified hazard (pp. 47-106, supported by 13 appendices). Before considering the plan, the Committee's concerns as to its authorship and status should be noted.

13.29 The plan does not indicate the sources upon which its hazard profile is based. It was put to the Committee that the plan was the work of 'the United States authorities who clearly have a lot more information available to them' than the Australian Government and, by inference, the Committee.[40] In fact, the plan was reportedly written by a New York City police inspector.[41] It is not a United States Government document. Nor does it appear to be a document approved or endorsed by the United States Navy.[42] As a result, it was not clear how much weight the

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40. Evidence, p. 1317 (People for Nuclear Disarmament).
41. Staten Island Advance, 1 April 1988, p. 1, 'Evacuation plan is prepared by city, just in case ...' describes a person who is 'a deputy inspector in the Police Department and deputy director of the city Office of Emergency Management' as the 'author of the draft'.
42. See para. 6.24 above. One of the appendices to the Plan is New York City, Department of Health, Bureau for Radiation Control, Radiation Aspects of Emergency Plan for Proposed Homeport, Navy Battleship Surface Action Group, Stapleton, Staten Island, (17 March 1988). This states (p. 1):

> Though certain classified information designated as secret/ confidential data has been made available to us, this has not influenced our assumptions or planning in any material way. The assumptions are our own and have neither been confirmed nor denied by the federal agencies involved except where indicated.

Committee should place on statements made in the profile.[43]

13.30 Many of the points made in the Plan's 'hazard profile' accord with information that the Committee has obtained independently. But the Committee thought it prudent to adopt a cautious attitude towards those statements for which no independent confirmation was available.

13.31 Among the points made in the hazard profile are:

- the profile addresses only hazards relating to weapons while in storage aboard ships, when it is assumed that the weapons will not be armed (p. 12);
- the probability of an accidental nuclear detonation 'is at or near zero and considered to be virtually a non-existent hazard' (p. 18), and is not addressed in the contingency plan;[44]
- two accident scenarios are modelled: the total non-nuclear detonation of a weapon's high explosive, and the complete burning of the weapon in a fire (p. 24), with the former regarded as the more serious (pp. 39-40);
- plutonium contamination from an accident will likely be confined to an area within 2,000 feet (610 metres) and down wind of the accident site (p. 26);
- plutonium contamination through ingestion or through absorption via an open wound is much less likely to be significant than inhalation,

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43. e.g. the profile states: 'There has never been an explosive accident involving weapons in storage aboard a modern Navy warship' (p. 36). If this is based on official US Navy information, it is clearly entitled to be treated as having greater weight than if it rests on the whatever public records were available to the profile's author.

44. cf. the plan prepared by the Oahu (Hawaii) Civil Defense Agency for nuclear weapon accidents at Pearl Harbour Navy facilities and Hickham Air Force base states that the nuclear detonation of a weapon in storage or transit 'is sufficiently unlikely as not to be considered as a possibility for planning purposes': quoted in 'Oahu CD has evacuation plan on file', Honolulu Advertiser, 18 March 1985, p. B1. The plan covers weapon storage areas on land and accidents during weapon transportation, as well as accidents involving weapons on ships based at Pearl Harbour or visiting there. It also covers reactor accidents on the warships.

which 'is by far the most likely scenario which could result in a life-threatening internal radiation exposure in an accident'(pp. 22-23);

- hazards of electromagnetic radiation to ordinance present 'a negligible problem' for nuclear weapons in storage (p. 31);

- 'seizure or theft [of a nuclear weapon] are not considered a viable occurrence' (p. 27);

- the threat from terrorism is regarded as 'greatly reduced' because of the safety design of the weapons and the security surrounding their storage (p. 40); and

- the profile does not treat as significant the differences in safety between older and modern nuclear weapons.

13.32 The hazard profile rather surprisingly contains no discussion of how a nuclear weapon accident might be initiated. For example, there is no examination of how a fire might start or how it would overcome the safety features of weapon magazines. Nor is there any examination of how the weapon's conventional explosive might be accidentally detonated.

13.33 The hazard profile's overall conclusion is:

> Because of the designed in nuclear weapon safety features, the possibility of a nuclear weapon accidental nuclear detonation is negligible. Because of the enhanced Navy safeguards and safety procedures, the possibility of any other kind of nuclear weapon accident is greatly reduced (p. 36).

13.34 In the light of this, it might be thought surprising that the draft plan was written. The explanation for this is to be found in the wording of the New York City Board of Estimates Resolution of 1 October 1987. This required that a plan be prepared at the same time as the hazard profile (p. 7). In other words, the decision that a plan is necessary is not based on the hazard profile, but was made at the same time as the decision

that a hazard profile should be prepared. Moreover, the most recent information available to the Committee indicates that the draft plan has not been, and possibly may never be, officially adopted.[45]

13.35 In view of this the Committee regarded the draft plan as an indication of what a nuclear weapon accident response plan might contain. But it regarded the existence of the draft plan as no evidence at all that such a plan is necessary for Australian ports.

Nuclear Capable Warship Bans in United States Ports

13.36 A few submissions suggested that United States cities, such as New York and Boston, had banned visits by nuclear weapons capable warships on safety grounds.[46] United States port visits by warships are under the jurisdiction of the United States Government and are not affected by any bans which local authorities may attempt to impose.[47] There are no ports in the United States which its Navy wishes to visit with nuclear weapons capable or nuclear powered vessels that it cannot do so.[48]

Conclusions

13.37 The Committee did not consider that the existence of planning by nuclear weapon countries, or by New York City, for

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45. 'Board Delays Vote On S. I. Navy Port', New York Times, 1 October 1988, section 1, p. 32: agreement to 'postpone indefinitely' a vote on the plan by the New York City Board of Estimates, at the request of the mayor.
46. e.g. submissions from Miss E. Ruzicka, p. 6; United Associations of Women, p. 1; Medical Association for the Prevention of War Australia (Vic), p. 1; Australian Nuclear Free Zones Secretariat, p. 2.
47. HR, Hansard, 29 November 1985, p. 4265.
48. US, H of R, Committee on Foreign Affairs, Subcommittee on Asian and Pacific Affairs, Security Treaty between Australia, New Zealand, and the United States - Hearing, 18 March 1985, p. 171 (J. A. Kelly, Department of Defense). For an example of a visit to New York, see 'Amid Salutes, Reagan Reviews Armada', New York Times, 5 July 1986, p. 26 (nuclear weapons capable battleship, aircraft-carrier and cruiser visit).

nuclear weapon accidents provided a persuasive basis for altering the conclusion set out at the end of the previous chapter. This conclusion was that there was no need for specific contingency planning for a nuclear weapon accident in an Australian port.

OTHER ISSUES

13.38 A number of issues related to the aftermath of a nuclear weapons accident were raised in submissions. Because of the conclusions reached by the Committee in this and the previous chapter on the improbability of such an accident, it is not necessary to deal with these issues. In many cases, however, the concern with regard to these issues was based on factual misunderstandings and the Committee considered that it would be useful to clarify some of these misunderstandings.

Scope of Contingency Plans

13.39 A number of submissions argued that plans similar to those now in place for nuclear powered warship visits should operate during visits by nuclear weapons capable vessels. For example, the absence of radiation monitoring during visits by the latter vessels was criticised.[49]

13.40 As the Australian Ionising Radiation Advisory Council noted, even if a nuclear weapon accident is thought to be a credible risk, contingency planning would need to be different from, and not necessarily as elaborate as, that now in place for nuclear powered warship visits.[50] For example, the Committee was told that there would be no point in continuous monitoring of

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49. Submissions from Senator J. Vallentine, p. 21 (Evidence, p. 1064); Ms A. Tubnor, p. 2; the Peace Squadron (Sydney), p. 15; Mr R. Bolt, p. 20 (Evidence, p. 970); Scientists Against Nuclear Arms (Tas), p. 5 (Evidence, p. 824).
50. Evidence, pp. 730-31 (AIRAC).

vessels because there would be no radiological warning of a weapon accident. Towing arrangements would not be needed because a weapon accident would involve a single rather than continuing release of hazardous material. Distribution of stable iodine tablets would be unnecessary because there would be no fission products released from the sorts of accidents likely to be found credible.[51]

Notification of Accidents

13.41 Some submissions questioned whether, in the light of the policy of neither confirming nor denying the presence of nuclear weapons, the United States Navy would inform Australian authorities of a nuclear weapon accident occurring in an Australian port.[52] It was stated that United States Naval instructions were in the event of an accident to maintain secrecy as long as possible.[53] Reference was made to the 1966 aircraft

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51. Contrast the submission from Mr R. Bolt, p. 20 (Evidence, p. 970), where it is assumed that the fission from a one-point detonation would create sufficient radioiodine to make stable iodine tablet distribution of some use.
52. e.g. see submissions from Scientists Against Nuclear Arms (Tas), p. 4 (Evidence, p. 823); Mr R. Bolt, p. 20 (Evidence, p. 970); Greenpeace Australia (NSW) Ltd, p. 32; People for Nuclear Disarmament, p. 5 (Evidence, p. 1307); Scientists Against Nuclear Arms (WA) and the Medical Association for the Prevention of War (WA), p. 9 (Evidence, p. 795).
53. Submissions from Balmain People for Nuclear Disarmament, p. 5; Inner City People for Nuclear Disarmament, pp. 1-2; Illawarra People for Nuclear Disarmament, p. 4; Scientists Against Nuclear Arms (NSW), pp. 1-2 (Evidence, p. 803-04); Scientists Against Nuclear Arms (Townsville), p. 2 (Evidence, p. 776).

accident at Palomares, Spain,[54] where the Committee was told that it was four days after the accident before local residents were informed of the contamination hazard. Submissions also referred to an article which stated:

> Even in an accident, the US will stick to its neither-confirm-nor-deny policy about the presence of nuclear weapons. Indeed, US officials may even purposely issue false public information to divert attention from the shipment of damaged nuclear components - a practice for which the participants in the 1983 Nuwax exercise were criticised.[55]

13.42 The Committee does not draw the conclusion that a practice acknowledged to be deficient as the result of an

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54. A few of the submissions referring to the Palomares accident appeared to rely on R. Lorente, 'The Nuclear Accident at Palomares', Peace Studies, June/July 1986, pp. 31-32. See for example the submissions from Scientists Against Nuclear Arms (NSW), p. 2 (Evidence, p. 804); Ms A. Weate and Ms L. Beacroft, p. 6. This is a polemical rather than a balanced account of the accident, however, and it contains major inaccuracies and misrepresentations. For example, contrary to other official and unofficial accounts of the accident, the author asserts that two bombers, not one, crashed in addition to the tanker aircraft, and that eight bombs were lost, not four. He asserts that 'for several weeks, the authorities concealed the fact that the B52 bombers had carried nuclear bombs'. Yet the media on the fourth day after the accident were reporting the admission by the US Defense Department that nuclear weapons were aboard: e.g. New York Times, 21 January 1966, p. 3 , 'U. S. Confirms Loss of Unarmed A-Bombs'. Lorente refers to events on the third day after the crash (ie. 20 January) and states: 'not until much later were steps initiated to provide compensation'. According to the official account, authorisation for making compensation payments was given on 19 January, with the first payment being made on 24 January: US, Defense Nuclear Agency, Technology and Analysis Directorate, Palomares Summary Report, (DNA, 1975), p. 154.
55. L. Zarsky and others, 'Nuclear Accidents', Current Affairs Bulletin, June 1986, vol. 63(1), p. 8 (citation omitted, emphasis in original, Evidence, p. 811). See also for example, submissions from Senator J. Vallentine, p. 28 (Evidence, p. 1071); Scientists Against Nuclear Arms (ACT), p. 5 (Evidence, p. 783); Australian Nuclear Free Zones Secretariat, p. 5. See also the Age, 22 March 1985, p. 3, 'US might cover up nuclear accidents abroad: claim'. For a rebuttal of this claim see the Age, 23 March 1985, p. 14, 'US would tell of N-accident: air marshal'.

exercise nonetheless continues to be the standard.[56] Moreover, it does not follow from a simulated accident response in the United States that a similar response would occur if an accident happened in an Australian port because of the international aspect.[57]

13.43 With respect to the Palomares accident, there was delay in publicly acknowledging the existence of a radiation hazard, in part due to the concerns of the Spanish Government.[58] There was no delay in informing the Spanish Government.[59] There appears to have been no delay in informing either the Danish Government or local residents about the accident in 1968 at Thule, Greenland.[60]

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56. See for example the US Defense Nuclear Agency's training material for nuclear weapon accident-response instruction, which was released in 1985 under the US Freedom of Information Act, and described in the letter accompanying it as 'current': letter from the Defense Nuclear Agency to Mr Peter Hayes, 28 February 1985, p. 1. One of the slides states the basic policy of neither confirming nor denying the presence of nuclear weapons. The following slide states (emphasis in original):

    Exceptions to the Basic Policy

    Confirm the presence of nuclear weapons when:

    1. There is clear danger to public safety
    2. There is public alarm

    And do it as quickly as possible!

    The next slide quotes an unnamed 'European Ambassador, 1985' as saying:

    What you say, and how quickly you say it, are crucial to maintaining your credibility in an emergency situation like this.

    For additional material published since the last NUWAX exercise, see US, Defense Nuclear Agency, Nuclear Weapons Accident Response Procedures Manual, (Washington, 1984), Section 10, including the requirement that 'the public must be notified immediately in the event their safety or welfare is endangered' by a nuclear weapon accident (p. 120).

57. e.g. the 1984 instructions issued by the US Pacific Command state that 'confirmation [of the presence of nuclear weapons] will be made promptly when protective actions in the interest of public safety must be taken': USCINCPACINST S8110.4C (8 May 1984), p. 4D2 (emphasis added). These instructions would apply to an accident on a US warship in an Australian port.

58. US, Defense Nuclear Agency, Technology and Analysis Directorate, Palomares Summary Report, (DNA, 1975), pp. 183-88.

59. ibid., p. 18.

60. O. J. Sundstrom, 'The Thule Affair', USAF Nuclear Safety, 1970, vol. 62(1) part 2, p. 6; R. O. Hunziker, 'The Commander's Point of View', ibid., pp. 13-16.

13.44 The references in submissions to United States instructions to maintain secrecy are to the United States Defense Nuclear Agency's Nuclear Weapons Accident Response Procedures Manual issued in 1984. This manual is intended specifically for use for accidents occurring in the US and its territories and possessions, although the manual states that parts of it may be appropriate in other locations.[61] The manual cites a Department of Defense (DOD) directive to the effect that:

> in general, it is DOD policy to neither confirm nor deny the presence of nuclear weapons at a specific location. The on-scene commander is authorized to invoke two exceptions. First, confirmation of the presence of a nuclear weapon is required when public safety is endangered. Second, the on-scene commander may confirm or deny the presence of the weapon, as necessary, to allay public alarm. No other variations from DOD policy are authorized.[62]

13.45 United States Department of Defense directions applicable to accidents outside United States territory allow on-scene commanders the same latitude in confirming the presence of nuclear weapons but require additionally that the host government

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61. 'Portions of the manual may also be appropriate for use by DOD elements ... in responding to overseas and in-port shipboard radiological accidents' (p. 1).
62. p. 2 (emphasis in original).

concur in any announcement.[63]

13.46 The Committee has satisfied itself that communication links and delegation of authority established for each warship visit ensure that there would be no delay on the part of the Australian Government in concurring in any accident announcement.

13.47 Media reports in mid-1987 based on a document obtained by a research group in the United States, Nautilus Pacific Research, claimed that United States naval commanders in the Pacific had been ordered to remove evidence in case of a nuclear weapon accident and treat it as one involving conventional explosive.[64] However, the relevant United States document does

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63. US, Department of Defense, Directive No. 5230.16 (Nuclear Accident and Incident Public Affairs Guidance) (Encl 3), 7 February 1983, p. 2. Instructions issued by the US Navy Pacific Command are to the same effect and clearly distinguish between what is appropriate in the United States or its territories and what is appropriate in other areas: declassified portion of USCINCPACINST S8110.4C (8 May 1984) released under the US Freedom of Information Act, pp. 4D1-4D2. See also HR, Hansard, 18 February 1988, p. 359; and the US Navy directions applicable to a US nuclear weapon involved in an accident or incident in the Philippines, obtained under FOI and reproduced in part in R. G. Simbulan, The Bases of Our Insecurity, (BALAI Fellowship, Manila, 1983), Appendix 5:

> official confirmation of the presence of such weapon may be made when it will have significant value in conjunction with with public safety or as a means of reducing or preventing wide-spread public alarm.

See similarly the declassified parts, also released under FOI, of US, United States European Command, USCINCEUR CONPLAN 4367-87-Response to Nuclear Accidents/Incidents within the Theater, 1987, p. F-2. This plan also provides for the concurrence of the host government to be obtained for any public announcement confirming or denying the presence of nuclear weapons in the accident, for joint US/host news conferences, and joint information dissemination to the media: pp. F-2 and F-3.

64. e.g. see the Australian, 24 August 1987, p. 6, 'US order to remove nuclear mishap clues'. See also earlier press reports based on the same document: e.g. Canberra Times, 9 July 1987, pp. 1, 15, 'US nuclear accident planning revealed'; the Age, 9 July 1987, 'Paper reveals US plan for N-accident in Australia'.

not clearly support the claim.[65] The claim was put to the Australian Government in the form of a Parliamentary Question. The Government responded:

> Contrary to the implication in the question, the procedures which are set out in the instruction are not designed to conceal the fact of a nuclear weapon accident from the Government of any country in which such an accident might occur. The instruction specifically directs nominated US Government representatives to coordinate accident response arrangements with the host Government. The instruction stipulates that accidents that do not entail a radiation hazard should be handled in the same way as accidents involving conventional weapons. The objective is to provide responses suitable to the level of accident, and to avoid undue public alarm.[66]

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65. The relevant part of the instruction, USCINCPACINST S8110.4C of 8 May 1984, Appendix C, para. 2(f), reads:

> (3) In the event a nuclear weapon accident/significant incident occurs:
>
> (a) Comply with the notification procedures covered in paragraph 3 below [relating to notification of various US officials].
>
> (b) Release only that information to the public which is authorized in accordance with Appendix D to this enclosure [which allows the presence of nuclear weapons to be confirmed]
>
> (c) Implement nuclear weapon accident/significant incident control procedures. If possible, the accident or significant incident should be treated as an accident or incident involving conventional high explosives, i.e., the procedures applied should not exceed the minimum required by the existing conditions.
>
> (d) Ensure safety of personnel.
>
> (e) Recover or remove, if at all practicable, all evidence of the nuclear weapon accident or significant incident as expeditiously as possible.
>
> (f) Maintain effective control at all times.

66. HR, Hansard, 18 February 1988, p. 359. In P. Hayes and others, 'Nuclear Weapon Accidents: Are we ready?', Current Affairs Bulletin, September 1988, vol. 65(4), p. 26 the original claim is repeated, the authors being apparently unaware that the Australian Government had responded to it. In reading the US instruction, it is important to keep in mind the breadth of the definitions of 'accident' and 'significant incident': see above, paras. 11.97–11.98. Events falling within these definitions do not necessarily involve a release of radioactive material from a weapon.

13.48 The international Convention on Early Notification of a Nuclear Accident does not apply to nuclear weapons accidents.[67] All five nuclear weapons countries have indicated, however, that they would notify within the framework of the convention any nuclear weapon accident which has, or might have, radiological safety significance for another country.[68] In indicating this, the United States stated that such notification represented a reaffirmation of its existing policy.[69]

13.49 In 1985, the Australian Government stated that 'working level procedures' required the commanders of visiting United States and British warships to notify the appropriate Australian authority immediately in the event of a nuclear weapon accident.[70]

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67. See article 1(2) of the convention. The text of the convention is set out in International Legal Materials, 1986, vol. 25, pp. 1370-1376. Australia ratified the convention on 22 September 1987. The US and Britain have stated that they will apply the convention pending their formal ratification of it: see ibid., p. 1394.
68. The texts of the statements by China, France, UK, US and USSR are set out in International Legal Materials, 1986, vol. 25, p. 1394. An accident only gives rise to an obligation to provide notification under the convention if it 'has resulted or may result in an international transboundary release that could be of radiological safety significance for another state': article 1(1). On a strict interpretation, it could be argued that an accident in an Australian port would lack this transboundary effect, and thus the convention is not relevant. The notification in 1986 (see next footnote) suggests that the focus will be on the words 'could be of ... significance' and notifications will be made so as to allay concerns. But the correctness of this suggestion remains to be seen.
69. On 4 and 6 October 1986, the USSR notified within the convention framework an explosion of the fuel of a nuclear missile on one of its nuclear powered submarines in the Atlantic and the subsequent sinking of the vessel: International Atomic Energy Agency press release, PR 86/37, 8 October 1986. This was presumably done in the spirit of the convention, which did not enter into force until 27 October 1986. Media reports immediately after the sinking of a Soviet submarine in international waters north of Norway on 7 April 1989 indicated that notification was made direct to the Norwegian and other governments, without using the convention framework. However, the sinking was reportedly not nuclear-related.
70. HR, Hansard, 23 August 1985, p. 458. See also Senate, Hansard, 14 November 1986, p. 2360: the commanding officer of a visiting warship would immediately notify a weapon accident to the local port authorities, naval or civil, having responsibility for general emergencies arising in that port.

13.50 A Parliamentary question in 1987 asked, in part, whether United States Navy commanders were obliged to inform Australian authorities of an accident in Australian territory in all cases, or only when the Australian public was deemed at risk. In response, the Government stated that the obligation arose in all cases.[71] The answer did not set out the basis of this obligation.[72]

13.51 In view of the above factors, the Committee does not consider that the United States would fail to notify Australian authorities of any nuclear accident in Australian territory.

Control at the Scene of an Accident

13.52 The Committee accepts that for safety reasons there would have to be control on access to, and removal of possibly contaminated material from, an accident site. A number of submissions raised the possibility that United States personnel would attempt to create around a nuclear weapon accident site some sort of extraterritorial zone from which Australians would

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71. HR, Hansard, 18 February 1988, p. 359.
72. It appears that the basis is an assurance given to the Australian Government in 1976 by the United States. In referring to this assurance, Senator Ray, on behalf of the Minister for Defence, described it as the same kind of assurance as that given by the US to Canada, New Zealand and other allies: Senate, Hansard, 12 October 1988, p. 1258. A document released under New Zealand's Official Information Act states that the assurances to Canada and New Zealand take the form of the US 'Standard Statement' relating to nuclear powered ships, modified to apply to nuclear weapons: memo to the NZ Minister of Foreign Affairs from the Secretary of Foreign Affairs, 9 August 1976, paras. 6 and 8. The 'Standard Statement' in its unmodified form states: 'the appropriate authorities of the host government will be notified immediately in the event of an accident involving the reactor of the warship during a port visit': para. 2(c) (Evidence, p. 1078). Presumably in its modified form the assurance refers to nuclear weapons that may be on board.

be excluded.[73] Those expressing concern in submissions were apparently basing their concern on past NUWAX exercises and on the Defense Nuclear Agency manual referred to earlier in this chapter.[74] As noted in that context, neither are directly

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73. e.g. see submissions from Greenpeace Australia (NSW) Ltd, p. 32; Epping & District Peace Group, p. 2; Assoc Prof P. Jennings, p. 1; Miss E. Ruzicka, p. 7; Scientists Against Nuclear Arms (Townsville), p. 2 (Evidence, p. 776); the Peace Squadron (Sydney), p. 9; Illawarra People for Nuclear Disarmament, p. 4; Victorian Association for Peace Studies, p. 3; Women's International League for Peace and Freedom (SA), p. 3; Senator J. Vallentine, p. 28 (Evidence, p. 1071); Ms A. Weate and Ms L. Beacroft, p. 9; New South Wales Fire Brigade Employees' Union, p. 12.

74. The media in September 1987 (e.g. 'Nuclear "plot": US accused', the Age, 26 September 1987) reported a claim that US control would be established over US weapon accident sites, irrespective of the country in which they occurred. The claim was based on instructions of the US Navy European Command, which, while applicable to the UK, did not apply to Australia. UK Department of Defence officials were reported as denying that the applicable US-UK contingency agreements for nuclear weapon accident response compromised UK sovereignty. For a similar denial see UK, Parliamentary Debates (Commons), 6th series, vol. 121, Written Answers, 2 November 1987, col. 601. The relevant contingency arrangements are classified and the UK Government has declined to make them public: ibid., vol. 123, Written Answers, 2 December 1987, col. 593. They would appear to resemble the arrangements which could arise pursuant to Article 20 of the Agreement between Australia and the United States of America concerning the Status of United States Forces in Australia, Canberra, 9 May 1963 (Australia, Treaty Series, 1963, No. 10). This provides that, in respect of bases or areas of which US forces have exclusive occupation, the US may, after consultation with the Australian Government, designate parts of the bases or areas as places which only personnel authorised by the local US commander may enter. In L. Beacroft and A. Walton, '"Broken Arrows": Who Pays?', Australian Society, May 1987, p. 35, it is claimed that this agreement gives the US 'exclusive control over the core of the contaminated area' after a weapon accident. The article of the agreement claimed to have this effect is not identified by the authors, and the claim is clearly incorrect.

applicable to events occurring in Australia.[75]

13.53 The United States Department of Defense has acknowledged to the Australian Department of Defence that:

> the establishment of such an area outside the US and its territories 'would appear to violate the sovereignty of the host nation, and be inconsistent with both international law and well established US policy'.[76]

13.54 The Department of Defence told the Committee:

> As a sovereign nation Australia would control and coordinate the response to any weapons accidents in one of its ports. This right of the host nation is acknowledged in Article 3(a) of CANARE [the international Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency[77]]. We

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75. Reference was also made to an incident at St Mawgan air base in Britain: see the submission from Mr P. Gilding, p. 25 (Evidence, p. 1358); Evidence, p. 1215 (Senator J. Vallentine). The incident, undated, was reported in the Independent (London), 15 July 1987, p. 1, 'Atomic dust used in training'. As reported, RAF firemen responding to a fire alarm at a part of the base used to store US nuclear weapons found their way barred by armed US servicemen. The report does not indicate if there was in fact a fire. The British Government stated in reference to the incident that it was entirely satisfied with the US/UK forces liaison and co-operation for nuclear accidents in the UK: UK, Parliamentary Debates (Commons), 6th series, vol. 119, 15 July 1987, col. 1135. See also ibid., Written Answers, 17 July 1987, col. 676. In a related response, the British Government declined to state if British emergency services had a right of access to US nuclear weapon storage sites, saying only that there was 'full liaison' with local emergency services: ibid., vol 120, Written Answers, 23 July 1987, col. 390. The roles and responsibilities of the US and UK with regard to a US nuclear weapon accident in the UK are governed by special arrangements: ibid., vol. 121, Written Answers, 2 November 1987, col. 607. A strong inference arises that the exclusive US control reportedly exercised at St Mawgan was in accord with these arrangements. This cannot be verified as the documents setting out the special arrangements are classified: ibid., vol. 123, Written Answers, 2 December 1987, col. 593. But the incident seems of limited relevance to Australia, save that it shows the strict physical security that surrounds US nuclear weapons.

76. Second supplementary submission from the Department of Defence, p. 27 (Evidence, p. 238.282), quoting an unidentified source.

77. For the text of the convention see International Legal Materials, 1986, vol. 25, pp. 1377-1386. Australia ratified this convention on 22 September 1987. The UK and US have both signed but not yet ratified the convention.

> would call on the US to provide promptly all the assistance that the responsible Australian authorities might require, but the extent and nature of this assistance would alter from port to port and in accordance with the specific circumstances of the accident.[78]

13.55 The Committee does not consider it objectionable that overseas personnel assist Australian officials in providing control and monitoring at an accident site. Spanish police controlled the site of the 1966 United States nuclear weapon accident at Palomares, Spain, although site examination and monitoring appears to have been done by United States personnel.[79] At the site of a similar accident in 1968 at Thule, Greenland site examination and monitoring was undertaken by Danish and United States teams working in close co-ordination.[80]

13.56 United States instructions relating to nuclear weapon accidents in its European Command make it amply clear that any accident response by United States forces will be within the framework of international law (including any agreements with the host state) and the law of the host state.[81] For example, the instructions state as a planning assumption that 'displacement, movement, and control of the civilian populace will be performed by host government authorities'.[82]

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78. Second supplementary submission from the Department of Defence, p. 28 (Evidence, p. 238.283).
79. US, Defense Nuclear Agency, Technology and Analysis Directorate, Palomares Summary Report, (DNA, 1975), pp. 18 and 27. It is important to note that responsibilities in relation to accident response were allocated by treaty between Spain and the United States; measures to take charge of and remove the damaged aircraft and its technical equipment were the responsibility of the United States authorities: ibid., p. 18.
80. The Danish Thule Committee, 'Evaluation of Possible Hazards', USAF Nuclear Safety, 1970, vol. 65(1) part 2, pp. 8-11.
81. US, United States European Command, USCINCEUR CONPLAN 4367-87-Response to Nuclear Accidents/Incidents within the Theater, 1987, Annex G.
82. ibid., p. G-3.

Conclusions

13.57 The Committee is confident that the relevant Australian authorities would be notified promptly of any nuclear weapon accident or significant incident occurring on a United States vessel in an Australian port. The Committee is equally confident that measures taken in response to any such event would not compromise Australian sovereignty.

13.58 The Committee has not considered these matters in relation to an nuclear weapon accident involving a British or French vessel. But it is aware of no basis for believing that its conclusions would be any different for such accidents.

Graham Maguire
(Chairman)