ISSN 0114-9199 ISBN 0-908881-00-2

WORKING PAPER NO. 1

THE NEITHER CONFIRM NOR DENY POLICY OPPRESSIVE, OBSTRUCTIVE, AND OBSOLETE.

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May 1990

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Nuclear Ship Visits Policies and Data for 55 Countries.

UPDATES AND ADDITIONS June 1990

UPDATES ALLOW

PHILIPPINES Embassy Wellington, 16 December 1988

Policy: "Under the Memorandum of Agreement signed by US Secretary of State Shultz and Philippine Secretary of Foreign Affairs Manglapus on 17 October 1998, the storage or installation of nuclear weapons or their components in the territory of the Philippines shall be subject to the agreement of the Philippine Government. Transits, overflights, or visits by US aircraft or ships shall not be considered storage or installation and will be conducted in accordance with existing procedures, which may be changed or modified as necessary, by mutual agreement by the two governments. Notification of the arrival of the ships or aircraft is also required."

UPDATES PROHIBIT

DENMARK NATO Embassy Canberra, 27 July 1998.

Policy: The Danish Prime Minister, Poul Schluter, made the following statement in the Folketing on 7 June 1988. “Elections were called (10 May 1988) on the question of procedures for visits of foreign warships in Danish ports. This question has been solved in the way that the Ministry of Foreign Affairs to-day has notified all Heads of Mission accredited in Copenhagen as follows:

‘Against the background of debate concerning visits in Danish ports by foreign warships the Ministry of foreign Affairs has the honour to draw attention to the well-known fact that it is a Danish policy not under the present circumstances, i.e. in peacetime, to accept nuclear weapons on Danish territory, including Danish ports.

Pursuant to the Royal Ordinance No. 73 of 27 February 1976 passing through internal Danish waters and visits to Danish ports still in every case require that advance permission has been obtained through diplomatic channels, cf. Note Verbale of 4 March 1976.

The Ministry of Foreign Affairs requests that the contents of the Circular Note be communicated to the appropriate national authorities.’

It is the intention to include the following sentence in every clearance which as previously will be forwarded by Danish authorities to the diplomatic mission of the country concerned:

‘The Danish Government assumes that the visit of the vessel will be in compliance with the rules laid down by the Danish Government.’

The Government considers that this procedure respects both the Danish non-nuclear policy and the views of our Allies.”

MALTA High Commission Canberra, 22 February 1990.

Policy: Text of a resolution (No.79) passed in the House of representatives, 23 June 1988.

“The House re-affirms that no nuclear armaments shall be allowed on Maltese territory.

The House, therefore, expects that countries whose naval vessels are given diplomatic clearance to visit Malta will respect this decision.

The House, furthermore, resolves that the Minister of Foreign Affairs shall communicate this resolution to Governments seeking diplomatic clearance for their ships to enter Malta and the House considers that diplomatic clearance given after such communication constitutes sufficient guarantee that no nuclear weapons will be carried on such visiting ships.”

There is uncertainty regarding the nuclear armed status of the USS Belknap and the Soviet cruiser Slava during their stay in Valetta for the Malta Summit late in 1989. Correspondence concerning their visits is available from the author.

SPAIN NATO Hellenic Foundation for Defence and Foreign Policy, Occasional Papers 7, US Bases in the Mediterranean: The Cases of Greece and Spain, T Veremis and Y Valinakis eds. 1989.

Policy: A new Agreement on defence Cooperation between Spain and the United States extending for a period of eight years was signed on 1 December 1988.Article Eleven 2 states “The installation, storage or introduction in Spanish territory of nuclear or non-conventional weapons or their components will be subject to the agreement of the Spanish Government.” However, under the Agreement it is understood between the parties to it that while Spanish authorities may forbid or permit, case by case, the visit of warships to Spanish ports, the Spanish Government will not inspect warships in Spanish territorial waters or in Spanish ports. No information concerning their armaments will be required.

ADDITIONS

PALAU/BELAU Bulletin of the Atomic Scientists, November 1988.

Policy: Palau was not included in the original survey because of lack of access to an official source of policy. While the Bulletin is not an official source, it is considered to be completely reliable.

In 1947 the United Nations and the United States entered into an agreement making most of Micronesia a Strategic Trust territory of the United States. Under this agreement, the Department of the Interior administers Palau, and the United States Government has the right to "establish military bases, erect fortifications, and station and employ armed forces in the territory" in exchange for the obligation to move the islands towards economic self sufficiency and political self-determination.

In the late 1970's, Palau and the rest of Micronesia prepared for the termination of the trusteeship agreement by drafting constitutions. In July 1979, 92 percent of Palauans voted to make Palau the first country in the world to adopt a constitution barring nuclear weapons and material from its territory. Article X111 of the Palauan Constitution reads: "Harmful substances such as nuclear, chemical, gas, or biological weapons intended for use in warfare, nuclear power plants and waste material therefrom, shall not be used, tested, stored, or disposed of within the territorial jurisdiction of Palau without the express approval of not less than three-fourths of the votes cast in a referendum submitted on this specific question." .

A series of votes since then has failed to overturn this anti-nuclear provision.

Ship Visits: *United States*
1984 2 ships days LHA 5 Peleliu
1985 No visits.
The Peleliu is capable of transporting nuclear weapons.

United Kingdom No visits reported for 1984, 1985, or 1986.

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ABSTRACT

The operation of the policy of neither confirming nor denying the presence of nuclear weapons on any military station, ship, vehicle, or aircraft (NCND) is examined in detail, particularly in relation to naval nuclear weapons. The aim of this study is to provide an understanding of the true purposes of, and use of this policy. Records for the 1983 to 1985 period of port calls by United States nuclear capable warships to supposedly nuclear weapons free ' ports in the Scandinavian region and in Japan and New Zealand together with some significant related events are analysed, and violations of the supposedly inviolable NCND policy considered. From these analyses and other evidence it is claimed that the policy is clearly shown to be used to allow the covert unhindered movement of nuclear weapons regardless of the non-nuclear policies of many countries. The policy is oppressive in its operation, obstructs arms control, and is obsolete. Proposals are presented for its elimination.

BIOGRAPHICAL DETAILS

Robert E. White, now retired from the University of Auckland where he held the position of Associate Professor for many years, holds the degrees of Doctor of Philosophy (1957) and Doctor of Science (1981). Research experience of over 30 years in nuclear physics resulted in approximately 50 scientific publications. Since 1986 he has been engaged in research related to nuclear policies and strategies. He was a founder member of Scientists Against Nuclear Arms (New Zealand) in 1983, and is the present Director of the newly established (late 1988) Centre for Peace Studies in the University of Auckland.

ACKNOWLEDGEMENTS

The author wishes to acknowledge the valuable assistance received from a number of colleagues, in particular 0 Wilkes, N Hager, F Kroon, J Gribben, and P Wills.

CONTENTS

THE NEITHER CONFIRM NOR DENY POLICY, OPPRESSIVE, OBSTRUCTIVE AND OBSOLETE.

INTRODUCTION

For many years the United States has maintained a policy of neither confirming nor denying the presence of nuclear weapons on any military station, ship, vehicle, or aircraft, referred to as NCND below.[1] Britain and France operate similar, if not identical, policies (see below). The Soviet Union claims that it does not practice a blanket NCND policy for visits by its naval ships to foreign ports, but respects existing bilateral treaties covering such visits,[2] and is reported to have declared its ships free of nuclear weapons for visits to some countries, and to have offered to do so for some others.[3]

Justifications for NCND policies relate in general to the need for, and advantages of, secrecy regarding the locations and quantities of various classes of nuclear weapons. These justifications are examined in detail, and arguments for and against them are presented. Here it is argued that the real reasons for maintaining this policy are quite different, are never stated openly, and because of the deceit involved provide an unacceptable basis for its continued operation.

The first goal of this study is to establish beyond reasonable doubt the validity of two basic assertions that, while neither original or new, have very important implications. These are:

1. The NCND policy has been used widely to allow nuclear weapons to be taken covertly into ports, airspaces, and other areas from which they are in principle excluded. This practice is continuing.

2. Many of these actions are carried out in collusion with the governments of a number of countries whose declaratory policies prohibit the entry of nuclear weapons into their ports, airspace, or other areas.

To achieve this, two analyses are presented. The first is a detailed analysis of records of visits to ports in a number of countries by naval ships capable of carrying nuclear weapons, nuclear capable ships, and by nuclear powered naval ships. This type of information has been used previously as a basis for criticism of NCND,[3,5] but new analyses are presented here.

The movements of individual nuclear capable ships are followed in detail as they visit neighbouring countries. Countries in the Scandinavian region including Denmark, Norway, and Sweden, and in the Pacific including Japan and New Zealand have been selected because of the policy implications of such visits for the countries named. All these countries claim that their ports are always free of nuclear weapons, in peacetime at least. From the records it is argued that if these claims hold good, the ships involved would have been required to be free of nuclear weapons for periods that are so long as to make the strategic value of having had the ships at sea very obscure. Other aspects of these ship visit records will also be presented that support the basic assertions made regarding the use of the NCND policy.

A closely related analysis considers the significance of the great sensitivity shown by the United States and the United Kingdom to any suggestion of a challenge to NCND. Details of events since 1984 relating to New Zealand's anti-nuclear policy, events surrounding the 1988 election in Denmark, and the effects of the stand taken to ban nuclear weapons by the port of Kobe in Japan are examined. This analysis shows how an understanding of these events

follows readily if the above assertions are correct.

A number of nuclear weapons accidents that have revealed, or strongly suggested, deceit in the use of NCND in isolated instances are next described.

This evidence, it is claimed, establishes the covert use of NCND beyond reasonable doubt. Nevertheless, many Western countries with otherwise non-nuclear policies, or that claim to reject nuclear weapons and support nuclear disarmament, have allowed nuclear capable ship visits under NCND for long periods. This could reflect general support for what is argued here to be an extremely undesirable policy, or there could be other reasons for these countries allowing the ship visits.

An analysis supporting the latter conclusion is presented which, further, is intended to achieve the second goal of this study. This is to expose what is claimed to be the real answer to the question of why countries have an NCND policy.

Although, they would never admit it openly, the nuclear powers use NCND to implement naval and other strategies unhindered by the awkward non-nuclear policies of various countries, including some of their allies. Its use avoids any need to make public the presence of nuclear weapons in countries, allied or otherwise, where this could cause serious unrest and possibly hinder the continued introduction of these weapons. This is the prime reason for maintaining the policy.

The proclaimed inviolability of NCND is then examined by considering
instances where the policy has been violated. While not numerous, these violations taken together suggest` that the degree of sanctity depends on the use to which NCND is being put, the more covert the use the greater the sanctity, as would be expected if the real use of NCND is as stated.

The ultimate goal of this study is to show that not only is it now time for NCND to be abandoned, but that this is essential for progress in disarmament and detente, and for other important reasons. To achieve this, the standard ' bases for retaining NCND are examined, and shown to be unjustifiable in the face of strong arguments against the policy and its retention. These it is claimed show that the policy is obstructive as well as oppressive, and is now obsolete.

The conclusion from this study is that there are overwhelming reasons for abandoning NCND.

The implications of abandoning NCND are then considered, particularly with regard to its covert use. This analysis suggests that if recently announced changes in Soviet strategy, particularly naval strategy, are being implemented, the effects of giving up NCND should only be a major problem for the United States, and changes in thinking may even be occurring in that country which could support the policy being abandoned.

Finally a series of measures is proposed that would achieve the elimination of NCND and all its unpleasant implications in verifiable conditions, and would also allow nuclear powers that so wish to retain all or most of the strategic value of their naval nuclear arsenals. Some suggested actions that could be undertaken to help persuade reluctant nuclear powers to accept these measures conclude this study.

THE MISUSE OF NCND: INFORMATION SOURCES.

The suggestion that countries like the United States and Britain misuse policy so they can take nuclear weapons covertly into countries that prohibit the entry of these weapons is very disturbing. To suggest further that the governments of those latter countries connive to thwart their own policies is even more disturbing.

If NCND operates efficiently, as it usually does, evidence of its misuse will of necessity be indirect since NCND will act to conceal this misuse. The indirect evidence of misuse presented here relates in the main to visits to ports by United States naval ships. The bulk of the evidence is taken from official lists of such visits for all ports visited during 1984 and 1985 outside the United States mainland, together with port visit lists for the Pacific region for some earlier years, and for Denmark and Norway from 1975 to 1985 inclusive. These lists were obtained from the US Navy Office of Information under the Freedom of Information Act during and prior to 1986. However, when a request was made for a global list of US Navy ship visits for 1986, this was refused. An intriguing sequence of reasons for this refusal was produced in a series of letters from various US naval departments. These cover the period from late 1986 to the present. Some of the details are pertinent to the case against NCND being made in this study.

The first reason given was that the US Navy had no document that specifically included a comprehensive list of ship visits, yet the same office had only a short time earlier been able to supply the ten year information for Norway and Denmark, and on March 21 1986 supplied a computer printout of global ship .Visits for the calendar year 1985.[6] When challenged concerning this claim the Office of Information stated that it did not hold the information requested, and referred the request to the office of the Chief of Naval Operations. This office claimed that the information sought was stored within a system for which there was no existing retrieval programme to sort, tabulate, and print out the information requested, so it was not subject to the FOIA. This decision was appealed under the FOIA and copies of pages from the information already held for 1984 and 1985 were sent along with other information refuting the no retrieval claim. The existence of a document for 1986 similar to the ones from which samples had been sent was then admitted, but it was stated that this Office of Naval Operations document is classified under Executive Order 12356 in the interests of national security. This in turn was appealed and this appeal was again refused on the same grounds. Following this, in late 1987 and early 1988, an appeal for assistance in obtaining the 1986 information was made to the US Information Security Oversight Office and to a sympathetic US Congressman, The Honourable T J Downey. Enquiries by Mr Downey evoked the response that at one time port visit information was treated as unclassified and routinely released. Unfortunately the instruction which permitted its release was later determined to be in direct conflict with more specific security classification guides that required the information to be classified 'confidential' No final response from the Information Security Oversight office has as yet been received.

Two aspects of this stand taken by the US Navy are important in connection with the present study of NCND, and for wider reasons. First, the argument that releasing ship visit data for an earlier period like 1986 could endanger national security is not tenable. This information has already been made publicly available by several governments that are allies of the United States namely Britain, Canada, and Australia for US ship visits to their ports, with no apparent objection from the United States. The Royal Navy provides the equivalent information on request for specific countries. Observers in ports can record ship visits, and in some ports have done so for some years.

The second and more serious aspect concerns the Executive Order 12356 introduced by President Reagan in 1982, and its implications. The FOIA is without question an admirable Act in principle, and in many cases in its working. What is not so obvious is that, following the introduction of E0 12356 on National Security Information, the FOIA has been effectively weakened to a serious extent. E0 12356 supersedes the Carter administration's Executive Order 12065 of 1978 which required officials, before classifying information, to show that 'identifiable' damage to national security would result from its disclosure. The Reagan order eliminates this requirement, and allows information to be classified whenever there is 'reasonable doubt' as to whether disclosure would be advisable. While the Carter order enjoined officials to balance the public interest against the need for secrecy, the Reagan order gives no such direction. The Carter order provided that documents automatically be reviewed for declassification after they were twenty years old. Under the Reagan order review is much more complex and uncertain. Many documents may continue to be classified simply because they are not known to exist.[7] Under this order, the President, or any US agency head or official so authorised, may 'reclassify information declassified and disclosed' without qualification. The implications of this Executive Order are far reaching.

These considerations, together with the fact that port call information was being used in ways that would hardly be pleasing to the US Navy, suggest strongly that the reclassification of the ship visit data was made to reduce the likelihood of its use in analyses detrimental to the Navy and to the NCND policy. The existence of Executive Order 12356 made this reclassification simple, although in principle material should not be classified merely to prevent embarrassment of a United States organisation or agency.[8] An FOIA request submitted in March 1990 for lists of all port calls by US Navy ships in 1988 and 1989 was declined on the same grounds as described above.

Ship visit information was also sought from the Royal Navy, and the French and Soviet navies. The Royal Navy has provided detailed information for specific countries and periods, but claims it does not have the resources to provide detailed global port call information. Lists of total numbers of calls to every port visited have been provided for each year from 1984 to 1987. The French would only give the total number of visits worldwide for 1985 (572 visits), 1986 (563 visits), and 1987 (672 visits), but no other detail except that these visits covered 80 countries. The British and French navies include only relatively small numbers of nuclear capable ships and, because of the lack of port call information, will not be considered further. The Soviet officials never replied.

The United States ship visit information described is now analysed in several ways, each intended to provide evidence in support of the claim that the non-nuclear policies of a number of countries are being subverted by the United States covertly, and in collusion with the governments of those countries. While an equally strong claim cannot be made against the United Kingdom, France and the Soviet Union, because the necessary information is not available, it is very likely that these countries exploit the NCND policy in the same way, or have done so at times.

These analyses could not be completed until accurate official statements of nuclear ship visit policies for all countries thought to have some form of non-nuclear policy were available. The task of compiling these was begun in 1987. The policy statements were published in 1988.[5]

ARE NUCLEAR CAPABLE SHIPS NORMALLY NUCLEAR ARMED?

The arguments to be presented for the misuse of NCND rely heavily on the assumption that nuclear capable ships normally carry their nuclear weapons, that it would be contrary to naval strategy for these ships to cruise for long periods without them. What evidence is there to support this assumption?

Reviews of naval nuclear armaments published in 1987 and 1988[9] state that the nuclear powers possess over 15,000 nuclear warheads for naval use. Some 8,800 of these are strategic or long range weapons, and about 6,600 are shorter range non-strategic or tactical weapons. All of the strategic weapons are aboard ballistic missile submarines. The non-strategic weapons are deployed on submarines and surface warships, or are delivered by land and sea based aircraft.

The United States arsenal includes 5,632 warheads on 640 missiles in the strategic submarine force, and 3,715 non-strategic warheads. A total of 278 ships and submarines were capable of firing nuclear weapons as of October 1987. The Soviet Navy has about 5,400 naval nuclear warheads, 2,902 in the strategic submarine force and 2,526 non-strategic warheads. A total of 624 Soviet ships are capable of firing nuclear warheads. Over 80 percent of Soviet major combat ships and submarines are nuclear capable, as are about 80 percent of their American equivalents.[9]

The Secretary of the Navy, John F Lehman Jr, in his report to the United States Congress for the fiscal year 1987 stated:

> The fleet is more ready to go in harms way than at any time in recent peacetime history. In the past five years, overall combat readiness for surface ships has improved by 94' percent, for nuclear attack submarines by 69 percent and aviation squadrons by over 200 percent.

A special publication by the United States Information Agency in 1987 entitled *United States Defence Posture in the Pacific* [1] states:

> The enormous distances across the Pacific preclude the United States from restricting contingency planning to reaction. This is the principal reason for forward deployment of United States forces beyond the territorial limits of the United States. By every standard of measurement Pacific fleet readiness for combat is high.

Admiral R J Hays in a 1987 article writes[10] that 'our warfighting strategy is based on forward deployed, highly mobile, interoperable, combat ready forces.'

While these statements were made in 1987, there is no lack of evidence showing that they applied in the 1984/85 period of importance for the present study, and that they still apply.[9]

It is difficult to understand how combat ready, highly mobile, and forward deployed forces can be maintained remote from nuclear weapons storage areas, unless most or all nuclear capable ships on active duty carry their nuclear weapons at all times as normal practice. It is also difficult to understand how these requirements are achieved if ships are required to off-load their nuclear weapons for significant periods to make calls at ports where these weapons are banned. Remoteness from nuclear weapons storage areas is again very significant here, a factor that will be considered in detail below, particularly when the number of ships and visits to ports in a specific country is very large as for port calls to Japan. For United States ships of the Pacific fleet to be free of nuclear weapons on all occasions when in Japan would greatly hinder the state of combat readiness claimed in the statements quoted above. This will become clearer when visits to Japan are considered.

Tomahawk sea launched cruise missiles (see page 52 below), including nuclear armed versions, are rapidly becoming an important element of the US Navy's arsenal, and plans are well advanced to equip some 200 ships with these.[11] At present it is not possible to change from a conventional to a nuclear warhead on these missiles at sea. At a meeting of the US Senate Subcommittee on Strategic and Theatre Nuclear Forces in 1985, then Senator Dan Quayle suggested that this possibility would increase the flexibility of the cruise missile force.

In reply Admiral Hostettler, US Navy, said:

> Yes, but such flexibility would come at high cost, The current cruise missile is a highly complex vehicle which was not designed for field maintenance. Each missile is thoroughly tested before it leaves the factory and remains intact until it is fired or returned for recertification in 30-36 months. During the period the missile is in the fleet, electrical continuity is maintained. To change a variant from conventional to nuclear or vice versa would require replacement of the entire front one-third of the missile. Nuclear surety requirements would dictate a complete retest of the missile requiring each ship to be outfitted with highly sophisticated test equipment and highly trained technicians to interpret the results. Clearly this is beyond the scope of normal Navy maintenance concepts, and will be performed only at shore-based depots. The capability to modify variants in the fleet is not planned for Tomahawks.[12]

This was confirmed in a letter to the author from the US Navy dated 14 March 1990 responding to an FOIA request for information concerning the preparation of Tomahawk cruise missiles for deployment. While the request was declined for 'various reasons, the reply stated that 'Admiral Hostettler's 1985 remarks are accurate regarding the information that warheads are not mated or demated while at sea.'

If the nuclear versions of the Tomahawk are to play a major part in future US Navy plans, it would seem imperative that they are loaded on ships complete with the appropriate warheads.

This and other evidence presented later, is considered sufficient to establish that nuclear capable ships of the US Navy and by implication of other nuclear navies while on active duty generally carry their normal complement of nuclear weapons. That being the case, the question now addressed is, what happens to those nuclear weapons during visits by such ships to ports that ban nuclear weapons?

OFF-LOADING OF NUCLEAR WEAPONS FOR PORT CALLS.

If nuclear capable ships are normally nuclear armed and honour the non-nuclear policies of countries they visit, they must off-load their nuclear weapons for these nuclear free port calls and then reload them. This could most easily be done during preceding and subsequent visits to nuclear weapons storage depots. It is assumed in the following analyses of specific ship visit histories that off-loading took place whenever a visit to such a storage depot occurred prior to the nuclear free port calls of interest.

Nuclear weapons could also be off-loaded at sea to another ship, or by air to land storage if this is within helicopter range. The techniques involved for the US Navy can be assessed from a US Navy report, *Loading and Underway Replenishment of Nuclear weapons,* [38] that details procedures for the supply of nuclear weapons at sea by underway replenishment ships or helicopters. These procedures are very complex, and are described as 'one of the most hazardous of all shipboard operations.'

Transfer at sea to another ship normally involves direct transfer to an underway replenishment ship. The US Navy listed 53 of these ships in 1984,[17] about half of which carry H-46 helicopters, but the above report refers to only 26 such ships. They are also discussed in Neptune Papers No.2.[9] Transfer to another combat ship is possible, normally via one of these support ships. Transfer to submarines is not discussed. Other small craft may be used for transfer if the situation necessitates it, but this is described as 'the most hazardous as well as the least desirable method of transfer.'

Off-loading by air requires the presence of one or more helicopters on the combat or support ship, unless the nuclear weapons can be collected by land based helicopters. The ship would then normally steam close to the base to or from which the weapons are being transferred, and transfer would require a helicopter landing space on the ship since nuclear weapons are generally always carried inside helicopters, particularly over long distances. Type H-46 or H-53 helicopters are normally used for nuclear weapons transfer. Very few if any United States nuclear capable ships carry the appropriate types of helicopter, but a considerable number are equipped for helicopter landing.

The US Navy had 165 nuclear capable surface ships in 1984.[17] These ships visited ports in at least 14 countries with non-nuclear policies.[5] In 1984, 97 such ships made 304 visits to supposedly nuclear free ports for a total of 2178 days. The port call information for 1985 shows that 74 nuclear capable US ' Navy ships made 224 nuclear free port visits for a total of 1923 days. Most of these visits would have precluded off-loading by air to land storage. Even if off-loading by ship did occur on all the necessary occasions, the support ship could not then have entered the same port but would have had to remain at sea, sometimes for weeks, waiting to reload its stored nuclear weapons. On frequent occasions several nuclear capable ships visited the same port together, all requiring their nuclear weapons to be held at sea, a large operation.

It is not considered reasonable to accept, that off-loading at sea to the above small number of support craft occurred directly or by helicopter for all visits for which off-loading by air was not possible, or that the 'most hazardous' procedure of using other small craft was invoked regularly in the past for nuclear free port calls. These considerations apply equally for visits by the present 180 to 190 United States nuclear capable ships.[9]

It is assumed in the following study of specific United States ship visit histories that off-loading from, and reloading to, nuclear capable ships is very unlikely for visits to ports banning nuclear weapons, except at nuclear storage depots. The detailed port visit analyses presented next reinforce this assumption which is presumed to hold for visits to nuclear free ports by nuclear capable ships of other navies. Statements from a variety of sources countering the possibility of regular off-loading for nuclear free port calls are presented below.

PORT VISIT ANALYSES.

PORT CALLS BY NUCLEAR CAPABLE SHIPS: DENMARK, NORWAY, SWEDEN.

Denmark, Norway, and Sweden all ban visits by nuclear armed ships in peacetime through similar policies which do not involve any direct declaration that visiting ships are free of nuclear weapons.[5] The Danish policy is considered fully below. Detailed information covering visits to these countries by United States nuclear capable ships during 1984 and 1985 is now examined to support the claim that at least some of the ships involved could not have off-loaded their nuclear weapons before visiting ports in one or more of these countries unless they spent considerable periods at sea without nuclear weapons on board; The countries will be considered in a group as the ships often visit ports in more than one of these countries sequentially, or in the same time period.

Possible United States naval nuclear weapons storage locations in Europe are Gaeta and La Maddalena (Sardinia) in Italy, Sigonella in Sicily, and Holy Loch, Machrihanish and Saint Mawgan in the United Kingdom. The majority of these weapons are stored at locations within the United States mainland [13] It is assumed below that if a sequence of port calls does not include one of these locations, the ship in question could not have changed its nuclear armaments during this sequence. It is also assumed that a ship capable of carrying nuclear weapons will normally be equipped with those weapons most of the time it is at sea, and would not normally spend large periods at sea devoid of all its nuclear capability.

INDIVIDUAL NUCLEAR CAPABLE SHIP MOVEMENTS: 1984 and 1985

The movements of specific United States nuclear capable ships that visited ports in Denmark, Norway or Sweden in 1984 or 1985 are now presented. The non-nuclear ports of interest are shown bold.

BB 61 IOWA Battleship Tomahawk sea launched cruise missiles (TLAM/N)†

PORT	COUNTRY	DATES OF VISIT
Colon	Panama Canal Zone	9 Feb to 10 Feb 1985
Limon	Costa Rica	16 Feb to 18 Feb
La'Ceiba	Honduras	23 Feb to 26 Feb
Le Havre	France	21 Sept to 24 Sept
Copenhagen	**Denmark**	**27 Sept to 30 Sept**
Aarhus	**Denmark**	**1 Oct to 6 Oct**
Oslo	**Norway**	**7 Oct to 10 Oct**
Kiel	Germany	19 Oct to 25 Oct

† See Appendix l. The weapon types named for individual ships apply to weapons carried by those ships in 1984 and 1985.

The ship could have visited the United States mainland between February and September and off-loaded its nuclear weapons before the visits from 21 September to 25 October. No visits to overseas ports are shown in 1985 after 25 October. If the Iowa was nuclear weapons free for its Scandinavian cruise, either it did not collect nuclear weapons from an overseas base before 1986, or returned to the United States for them after leaving Kiel, which is much more likely in the case of Tomahawk missiles. Either alternative would mean that the Iowa spent nearly two months in 1985 free of nuclear weapons while it steamed to Europe at a speed around 22 knots, made its cruise, and reloaded its weapons by steaming back across the Atlantic. For a ship of this class to be disarmed in this way and in this region for this period merely for a two week' visit to three ports is considered very unlikely.

FF 1081 AYLWIN Knox class Frigate — Antisubmarine rockets (ASROC)†

PORT	COUNTRY	DATES OF VISIT
Nassau	Bahamas	28 May to 30 May 1985
Roosevelt Roads	Puerto Rico	3 June to 3 June
St Christopher	St Kitts	4 June to 5 June
Roosevelt Roads	Puerto Rico	5 August to 5 August
Dublin	Ireland	22 Sept to 27 Sept
Copenhagen	**Denmark**	**1 Oct to 6 Oct**
Kiel	Germany	8 Oct to 11 Oct
Aarhus	**Denmark**	**20 Oct to 25 Oct**

† See Appendix 1.

To be free of nuclear weapons for its Danish visits, this ship must have unloaded these weapons prior to 22 September. It did not make any overseas calls where it could have reloaded them before the end of 1985. Like the Iowa, it would have to have been free of these weapons for nearly two months at least, assuming a cruising speed of about 16 knots for its Atlantic crossings, if Danish policy was respected during its visits.

DDG 23 BYRD R E Charles F Adams class Guided Missile Destroyer — ASROC

PORT	COUNTRY	DATES OF VISIT
Azores	Portugal	17 Jan to 19 Jan 1985
Lisbon	Portugal	23 Jan to 27 Jan
Bergen	**Norway**	**23 Feb to 28 Feb**
Amsterdam	Netherlands	4 March to 7 March
Ghent	Belgium	14 March to 17 March
Portsmouth	United Kingdom	22 March to 14 April
Lorient	France	25 April to 28 April
Esbjerg	**Denmark**	**2 May to 3 May**
Frederikshavn	**Denmark**	**6 May to 6 May**
Kristiansand	**Norway**	**16 May to 16 May**
Leixoes	Portugal	21 May to 22 May
Cadiz	Spain	1 June to 2 June
Ponta Delgada	Portugal	15 June to 16 June
Halifax	Canada	26 June to 29 June
Freeport	Bahamas	12 Oct to 14 Oct

In this case, the ship must have been free of nuclear weapons from 17 January until at least 16 June, and probably to 29 June, if it was so for its Scandinavian visits. This is a period of five months. Portsmouth is not a United States nuclear weapons storage area as far as is known.

DD 987 O'BANNON Spruance class Destroyer — ASROC

PORT	COUNTRY	DATES OF VISIT
Lisbon	Portugal	26 Jan to 29 Jan 1984
Brest	France	9 Feb to 12 Feb
Den'Helder	Netherlands	15 Feb to 21 Feb
Antwerp	Belgium	27 Feb to 1 March
Wilhemshaven	Germany	24 March to 15 April
Cadiz	Spain	5 May to 8 May
Rotterdam	Netherlands	14 May to 17 May
Haakonsvern	**Norway**	**1 June to 10 June**
Rosyth	United Kingdom	15 June to 17 June

This ship would have been without nuclear weapons from 26 January to 17 June if it was so for its Norwegian visit, a period of nearly five months. It could have off-loaded them in the United States and returned to Europe in the time between 15 April and 5 May by crossing the Atlantic twice in this 20 day period, but this is regarded as very unlikely.

FF 1097 MOINESTER Knox class Frigate — ASROC

PORT	COUNTRY	DATES OF VISIT
Santo Tomas	Guatemala	1 April to 2 April 1985
Malaga	Spain	19 April to 25 April
Bergen	**Norway**	**8 May to 10 May**
Rota	Spain	17 May to 19 May
Port Mahon	Spain	23 May to 27 May
Cartagena	Spain	31 May to 3 June
Naples	Italy	8 June to 10 June
Sousse	Tunisia	26 June to 29 June
Naples	Italy	2 July to 7 July
Gaeta	Italy	27 July to 12 Aug
Rapallo	Italy	15 Aug to 21 Aug
Naples	Italy	24 Aug to 30 Aug
Palermo	Italy	15 Sept to 17 Sept

This ship, if nuclear weapons free in Bergen, must have been so by 1 April and stayed so for nearly four months until its visit to Gaeta on 27 July, or until 17 September at least if United States naval nuclear weapons are not stored at Gaeta. This assumes the weapons were not off-loaded in the United States between 10 and 26 June and reloaded between 7 and 27 July.

CG 47 TICONDEROGA Ticonderoga class Guided Missile Cruiser — ASROC

PORT	COUNTRY	DATES OF VISIT
Bridgetown	Barbados	3 Feb to 5 Feb 1985
Portsmouth	United Kingdom	24 Sept to 29 Sept
Aarhus	Denmark	1 Oct to 7 Oct
Stockholm	**Sweden**	**9 Oct to 14 Oct**
Kiel	Germany	19 Oct to 25 Oct

To have been nuclear weapons free in Denmark and Sweden means that the Ticonderoga was so from 24 September to 25 October plus the steaming time from and to the United States as a minimum, since no other overseas port calls are recorded for 1985. This makes a minimum of about one and a half months, assuming a cruising speed of about 20 knots, and direct transits of the Atlantic by the ship, before September 24 after offloading its ASROC missiles, and after October 25 to reload them.

CGN 40 MISSISSIPPI Virginia class nuclear powered Cruiser — ASROC

PORT	COUNTRY	DATES OF VISIT
Haifa	Israel	1 Jan to 4 Jan 1985
Toulon	France	1 Feb to 10 Feb
Naples	Italy	18 Feb to 24 Feb
Palma	Spain	2 March to 6 March
Gaeta	Italy	27 March to 4 April
Haakonsvern	**Norway**	**16 April to 18 April**
Bremerhaven	Germany	22 April to 24 April
Trondheim	**Norway**	**17 June to 21 June**
Charlotte Amalie	Virgin Islands	2 Oct to 6 Oct

This ship both carries nuclear weapons and is nuclear powered. If free of its nuclear weapons in Norway it would have been so at least from 4 April, if Gaeta is a naval nuclear weapons storage location for the United States, to 21 June, nearly three months. If the weapons were not off-loaded in Gaeta this period becomes more like five months, 1 February to 21 June 1985, discounting offloading in the United States.

Some of these port call histories, if considered in isolation, could feasibly include the rather excessive arrangements indicated to honour the non-nuclear policies of the Scandinavian countries. Off-loading by helicopter to inland points not normal nuclear weapons storage depots is also possible, but seems very improbable considering the complex and stringent measures associated with all movement and storage of United States nuclear weapons. [38,77] Helicopters used would have had to come from specially trained US Navy or Marine squadrons. The only known US Navy or marine air bases in Europe are at Naples and Sigonella in Italy, Rota.in Spain, and earlier at Mildenhall in Britain. [29] Long distance transfer by helicopter is considered very unlikely as a regular practice because of the risks of accident, and the excessive time required to load and unload each weapon,[38] most ships cannot accommodate many helicopters simultaneously.

PORT CALLS: 1975 TO 1985.

An analysis of the information supplied for visits to Denmark and Norway from 1975 to 1985 inclusive shows the following for visits by major nuclear capable ships only of the United States Navy.

CLASS	DAYS DENMARK		DAYS' NORWAY		VISITS DENMARK	VISITS NORWAY	CRUISES
BB	10	(1)	4	(1)	2	1	1
CGN	0	(0)	23	(4)	0	6	5
SSN	0	(0)	24	(5)	0	6	6
CG	2 6	(5)	17	(3)	6	4	10
DDG	84	(11)	103	(11)	21	24	23
DD	12	(2)	47	(7)	3	9	12
FFG	1 0	(2)	4	(1)	3	1	3
FF	91	(15)	68	(16)	19	24	30
TOTALS	233	(36)	290	(48)	54	75	90

BB - Battleship, CGN - Nuclear Powered Guided Missile Cruiser, SSN - Nuclear Powered Attack Submarine, CG - Guided Missile Cruiser, DDG - Guided Missile Destroyer, DD - Destroyer, FFG - Guided Missile Frigate, FF - Frigate.

DAYS - The number of days in ports of the country named. The numbers in brackets give the number of ships of each class involved.

VISITS - The number of visits to ports in the country named.

CRUISES - Sequential or closely spaced visits to ports in both countries or to more than one port in the same country are considered to constitute one cruise. This means that for a given class of ship the number of cruises may be less than the total number of visits to both countries. The number of cruises shows the number of occasions when the ships involved would have had to be free of nuclear weapons, 90 occasions for visits to these two countries only over this 11 year period, if the non-nuclear policies of Denmark and Norway have always been respected.

The material presented is considered to constitute strong evidence that nuclear weapons are being, taken into ports in Denmark, Norway and Sweden. These actions must be known to the governments of Denmark, Norway and Sweden. They collude with the United States and other countries to circumvent their own non-nuclear policies.

PORT CALLS BY NUCLEAR CAPABLE SHIPS: JAPAN

There are three important aspects of United States nuclear capable ship visits to Japan shown by the 1984 and 1985 lists, and by more recent events. These are:

1. The number of visits annually in 1984 and 1985 was very large. Based on the experience in Australia and Canada, for which more recent information is available, and on observations by local port watchers in Japan, the frequency and total number of visits annually is still large.

2. To have respected Japan's non-nuclear policy, some nuclear capable ships at least that visited in 1984 and 1985 must have been free of nuclear weapons for very long periods, up to and even in excess of one year unless extraordinary' off-loading procedures were followed on many occasions.

3. The US Navy homeports nuclear capable ships in Japan.

These points will be considered in detail following an outline of the basis of Japan's non-nuclear policy.

This policy is enshrined in three non-nuclear principles announced in 1966 by Prime Minister Eisaku Sato. These state that Japan will not manufacture or store nuclear weapons, or allow their introduction into Japanese territory. Further, a memorandum to the Mutual Security Treaty of 1960 between Japan and the United States requires that (see the United Nations Treaty Series, volume 373, 1960 for example):

> Major changes in the deployment into Japan of United States armed forces, major changes in their equipment, and the use of facilities and areas in Japan as bases for military combat operations to be undertaken from Japan other than those conducted under Article V of the said Treaty, shall be the subjects of prior consultation with the Japanese Government.

The introduction of nuclear weapons on ships has been argued to constitute a major change of the sort covered by this memorandum. The fact that the United States has never sought any such consultation is taken by the Japanese Government as showing that United States ships do not bring nuclear weapons into Japanese ports.[4] Former Prime Minister Nakasone stated on March 17 1984 during a Parliamentary session:[14]

> As I have always said, a temporary port call or passing through territorial waters should be subject to prior consultation, and if a warship is carrying nuclear weapons we reject the port call or passage. This is my long-standing position.

Nevertheless, there are suggestions that the 'no introduction' principle is interpreted by the Japanese Government in a way that permits the carrying of nuclear weapons on ships entering Japanese ports in transit,[15] that transit is not introduction. The strength of the prior consultation requirement in relation to port visits has also been questioned since it refers to weapons deployment, and it has been argued that the temporary introduction of weapons on ships does not constitute deployment.[16] Both of these arguments will be challenged.

TOTAL NUCLEAR CAPABLE SHIP VISITS ANNUALLY: JAPAN

YEAR	No.SHIPS	No.VISITS	No.SHIP-DAYS
1984	42	206	1708
1985	28	153	1587

SHIP-DAYS. One ship in a port for one day or reasonable part thereof is listed in the United States lists as one ship-day.

This shows that in 1984, 42 different US nuclear capable ships made 206 visits to Japanese ports for a total of 1708 days. The equivalent numbers for 1985 are as given.

These numbers of 42 and 28 ships are seen in an interesting perspective when they are compared with the total number of nuclear capable ships in the US Pacific Fleet. This number for 1984 was 120 from US Navy information.[17] It is seen that in 1984 approximately 35% of the Pacific Fleet visited Japan, and about 23% visited in 1985. It is difficult to believe that the United States is willing to have such large proportions of its Pacific Fleet devoid of nuclear weapons for significant periods for the sake of port calls in Japan.' From information supplied by the US Navy under the Freedom of Information Act, the number of nuclear capable ships in their Pacific Fleet was 137 in 1987 and 132 in 1989.

INDIVIDUAL NUCLEAR CAPABLE SHIP MOVEMENTS: 1984 and 1985

The movements of specific United States nuclear capable ships that visited ports in Japan in 1984 or 1985 are now presented. The non-nuclear ports of interest are shown bold. This is the equivalent for Japan of the port call histories given for visits to the Scandinavian countries. Those histories, and the claims based on them, may not have been found very convincing. The cases to be considered for Japan are not so easily dismissed. Because of the large number of ships that visited Japan in these two years, it is neither practical nor sensible to present histories for more than a few cases. The cases presented are not the only cases that support the claims being made from analysis of these histories.

The only known United States nuclear weapons storage areas in the Pacific outside the United States mainland are in Guam and Hawaii. Visits to these ports are given in the United States port call lists used here. It is assumed that if no visit to a port in Guam or Hawaii is shown in the histories given below, the only way the ship named could have loaded or unloaded nuclear weapons is by a visit to the American mainland. This round trip requires a' considerable time, two weeks or more from the Philippines steaming at about 25 knots for example. Port call information for American mainland ports was not included in the 1984 and 1985 port call lists.

CV 41 MIDWAY Midway class Aircraft Carrier Nuclear capable aircraft.

PORT	COUNTRY	DATES OF VISIT
Subic Bay	Philippines	2 Jan to 4 Jan 1984
Subic Bay	Philippines	7 Jan to 7 Jan
Singapore	Singapore	24 April to 27 April
Phayatta	Thailand	1 May to 6 May
Subic Bay	Philippines	11 May to 16 May
Buckner Bay	**Japan**	**19 May to 19 May**
Yokosuka	**Japan**	**23 May to 3 June**
Sasebo	**Japan**	**8 June to 10 June**
Yokosuka	**Japan**	**14 June, to 14 June**
Yokosuka	**Japan**	**15 June to 30 June**
Yokosuka	**Japan**	**1 July -to 14 Aug**
Sasebo	**Japan**	**23 Aug to 25 Aug**
Yokosuka	**Japan**	**6 Sept to 12 Sept**
Yokosuka	**Japan**	**30 Sept to 30 Sept**
Yokosuka	**Japan**	**1 Oct to 14 Oct**
Subic Bay	Philippines	26 Oct to 27 Oct
Subic Bay	Philippines	30 Oct to 3 Nov
Pusan	S. Korea	5 Dec to 9 Dec
Yokosuka	**Japan**	**13 Dec to 31 Dec**
Yokosuka	**Japan**	**1 Jan to 31 Jan 1985**
Manila	Philippines	17 Feb to 19 Feb
Subic Bay	Philippines	21 Feb to 25 Feb
Hongkong	Hongkong	4 March to 8 March
Yokosuka	**Japan**	**28 March to 31 March**
Yokosuka	**Japan**	**1 April to 15 May**
Yokosuka	**Japan**	**3 June to 9 June**
Subic Bay	Philippines	19 June to 23 June
Ras Al Hadd	Oman .	19 July to 20 July
Masirah	Oman	27 July to 28 July
Masirah	Oman	4 Aug to 5 Aug
Ras Al Hadd	Oman	7 Aug to 8 Aug
Masirah	Oman	11 Aug to 12,Aug
Masirah	Oman	20 Aug to 21 Aug
Fremantle	Australia	13 Sept to 18 Sept
Subic Bay	Philippines	2 Oct to 6 Oct
Yokosuka	**Japan**	**20 Oct to 14 Nov**
Hongkong	Hongkong	27 Nov to 1 Dec
Yokosuka	**Japan**	**13 Dec to 31 Dec**

This list of visits covers two years. To be nuclear weapons free for the Japanese port calls in 1984, the ship could have off-loaded its weapons before its visit to Singapore on 24 April. No visits to Guam or Hawaii are , shown for the Midway in 1984 or 1985, so it would have had to visit the American mainland to unload and reload its nuclear weapons. The ship should , have been free of nuclear weapons by May 19 when it visited Buckner Bay in Japan. It must have been so by 24 April in this case, since there was no opportunity to off-load after that date, and remained so for the rest of 1984, a period of 8 months. Nuclear weapons could possibly have been reloaded between 31 January and 17 February 1985, but they would have had to be off-loaded again before 28 March when the ship entered Yokosuka, and kept off the ship until 9 June. Reloading could have occurred for the visits to Oman, the Philippines and Australia, but the ship should have been free of nuclear weapons again by 20 October and remained so to the end of 1985.

Unless the Midway dodged back and forth to the American mainland to collect and drop its nuclear weapons, it must have been cruising for the whole of 1985 and 8 months in 1984 devoid of nuclear weapons for its aircraft, a total of 20 months.

There are unsubstantiated claims that US naval nuclear weapons are also stored in the Philippines at Subic Bay. Even if these are correct, the

Midway should have been free of nuclear weapons by 16 May 1984 to visit Buckner Bay, and remained so until 26 October when it arrived at Subic Bay, a period of five months. But if it loaded nuclear weapons then, it would have to have off-loaded them again in Subic Bay by 3 November for its visit to Yokosuka on 13 December. So the Midway would still have to have been effectively free of nuclear weapons for the whole period 16 May 1984 to 31 January 1985, a period of eight and a half months,' except possibly for a few days at the end of October near the Philippines.

Nuclear weapons could not have been taken on board in Subic bay in February 1985 because the ship visited Yokosuka again in March, not calling at a nuclear weapons store after Subic Bay. Unless the Midway reloaded at the American mainland between 31 January and 17 February and off-loaded in Subic Bay by 25 February,; it must have stayed nuclear weapons free until 19 June 1985, over a year from 16 May 1984.

Subic Bay will not be treated as a nuclear weapons storage depot for the US Navy below. Readers can assess the effect of storage there on the ship visit histories that follow if they wish.

The Midway has been homeported in Yokosuka from 1973, and was homeported there during the period considered.

CG 23 HALSEY Leahy class Guided Missile Cruiser ASROC, Terrier †

PORT	COUNTRY	DATES OF VISIT
Pearl Harbour	Hawaii	23 March to 24 March 1984,
Guam	Guam	12 April to 12 April
Subic Bay	Philippines	20 April to 26 April
Phayatta	Thailand	1 May to 6 May
Subic Bay	Philippines	11 May to 16 May
Sasebo	**Japan**	**25 May to 1 June**
Sasebo	**Japan**	**2 June to 2 June**
Beppu	**Japan**	**8 June to 9 June**
Chinhae	S. Korea	15 June to 17 June
Sasebo	**Japan**	**23 June to 24 June**
Hongkong	Hongkong	28 June to 30 June
Hongkong,	Hongkong	1 July to 4 July
Subic Bay	Philippines	7 July to 20 July
Phayatta	Thailand	25 July to 29 July
Songkhla	Thailand	9 Aug to 11 Aug
Pulau Tioman	Malaysia	13 Aug to 14 Aug
Pulau Tioman	Malaysia	17 Aug to 17 Aug
Pulau Tioman	Malaysia	20 Aug to 20 Aug
Singapore	Singapore	22 Aug to 25 Aug
Subic Bay	Philippines	30 Aug to 31 Aug
Subic Bay	Philippines	5 Sept to 9 Sept
Pearl Harbour	Hawaii	22 Sept to 24 Sept

† See Appendix 1.

This ship could have off-loaded its nuclear weapons in Guam on 12 April, but then would have had to remain free of them until its visit to Hawaii on the 22 September. This is a period of over 5 months for which the ship would have been without these weapons just for visits Japanese ports for a total of 11 days.

FF 1087 KIRK Knox class Frigate ASROC

PORT	COUNTRY	DATES OF VISIT
Subic Bay	Philippines	2 Jan to 4 Jan 1984
Masirah	Oman	29 Jan to 3 Feb
Masirah	Oman	10 March to 14 March
Masirah	Oman	3 April to 5 April
Singapore	Singapore	24 April to 27 April
Phayatta	Thailand	1 May to 6 May
Subic Bay	Philippines	11 May to 15 May
Subic Bay	Philippines	17 May to 17 May
Yokosuka	**Japan**	**23 May to 10 June**
Yokosuka	**Japan**	**11 June to 11 June**
Chinhae	S.Korea	17 June to 17 June
Chinhae	S.Korea	18 June to 22 June
Yokosuka	**Japan**	**25 June to 29 June**
Yokosuka	**Japan**	**30 June to 30 June**
Yokosuka	**Japan**	1 **July to 5 July**
Chinhae	S.Korea	8 July to 9 July
Chinhae	S.Korea	10 July to 10 July
Sasebo	**Japan**	**12 July to 16** July
Kure	**Japan**	**19 July to 21 July**
Yokosuka	**Japan**	**26 July to 2 Aug**
Sasebo	**Japan**	**5 Aug to 6 Aug**
Maizuru	**Japan**	**13 Aug to 15 Aug**
Yokosuka	**Japan**	**20 Aug to 20 Aug**
Yokosuka	**Japan**	**21 Aug to 30 Sept**
Yokosuka	**Japan**	**1 Oct to 31 Dec**
Yokosuka	**Japan**	**l Jan to 13 Jan 1985**
Yokosuka	**Japan**	**19 Jan to 24 Jan**
Yokosuka	**Japan**	**25 Jan to 27 Jan**
Yokosuka	**Japan**	**28 Jan to 29 Jan**
Subic Bay	Philippines	17 Feb to 21 Feb
Hongkong	Hongkong	4 March to 8 March
Yokosuka	**Japan**	**27 March to 31 March**
Yokosuka	**Japan**	**20 April to 15 May**
Yokosuka	**Japan**	**3 June to 9 June**
Subic Bay	Philippines	19 June to 23 June
Masirah	Oman	27 July to 28 July
Ras Al Hadd	Oman	7 Aug to 8 Aug
Diego Garcia	Indian ocean	24 Aug to 28 Aug
Diego Garcia	Indian ocean	31 Aug to 3 Sept
Fremantle	Australia	13 Sept to 18 Sept
Subic Bay	Philippines	2 Oct to 6 Oct
Yokosuka	**Japan**	**15 Oct to 27 Oct**
Chinhae	B.Korea	30 Oct to 1 Nov
Chinhae	S.Korea	2 Nov to 6 Nov
Yokosuka	**Japan**	**9 Nov to 10 Nov**
Yokosuka	**Japan**	**11 Nov to 15 Nov**
Hongkong	Hongkong	27 Nov to 1 Dec
Chinhae	S.Korea	14 Dec to 17 Dec
Yokosuka	**Japan**	**20 Dec to 31 Dec**

The Kirk must have been free of nuclear weapons by 23 May 1984 to have honoured Japanese policy, and as early as 24 April in Singapore, since there was little time after that for off-loading. It must have stayed so for the remainder of 1984 and at least up to the 29 January 1985, a period of 9 months. If nuclear weapons were loaded after this, they must have been offloaded again by 27 March when the ship was once more in Japan. Weapons could have been collected from the American mainland between 23 June and 27 July, but again would have had to be off-loaded before the Japan visit on 15 October, and there was no period adequate for this from 27 July to 15 October. It seems clear that the Kirk would have had to be free of nuclear weapons for the whole of 1985, as well as 9 months in 1984, to honour

Japanese policy.

The Kirk was homeported in Yokosuka in 1984.

CG 24 REEVES Leahy class guided Missile Cruiser ARSOC, Terrier

PORT	COUNTRY	DATES OF VISIT
Yokosuka	**Japan**	**1 Jan to 7 Jan 1984**
Yokosuka	**Japan**	**8 Jan to 8 Jan**
Yokosuka	**Japan**	**9 Jan to 11 Jan**
Yokosuka	**Japan**	**12 Jan to 22 Jan**
Pearl Harbour	Hawaii	4 Feb to 12 Feb
Pearl Harbour	Hawaii	18 Feb to 21 Feb
Pearl Harbour	Hawaii	4 March to 9 March
Yokosuka	**Japan**	**21 March to 31 March**
Yokosuka	**Japan**	**1 April to 1 April**
Yokosuka	**Japan**	**7 April to 10 April**
Subic Bay	Philippines	16 April to 22 April
Subic Bay	Philippines	29 April to 6 May
Subic Bay	Philippines	12 May to 15 May
Hongkong	Hongkong	18 May to 21 May
Kagoshima	**Japan**	**25 May to 27 May**
Chinhae	S.Korea	29 May to 2 June
Sasebo	**Japan**	**8 June to 10 June**
Yokosuka	**Japan**	**13 June to 30 June**
Yokosuka	**Japan**	**1 July to 5 July**
Manila	Philippines	21 July to *23 July*
Yokosuka	**Japan**	**30 July to 6-Aug**
Yokosuka	**Japan**	**8 Aug to 14 Aug**
Sasebo	**Japan**	**23 Aug to 25 Aug**
Yokosuka	**Japan**	**6 Sept to 12 Sept**
Yokosuka	**Japan**	**30 Sept to 30 Sept**
Yokosuka	**Japan**	**1 Oct to 14 Oct**
Subic Bay	Philippines	26 Oct to 27 Oct
Subic Bay	Philippines	30 Oct to 3 Nov
Pusan	S.Korea	5 Dec to 9 Dec
Yokosuka	**Japan**	**13 Dec to 31 Dec**
Yokosuka	**Japan**	**1 Jan to 20 Jan 1985**
Chinhae	S.Korea	23 Jan to 27 Jan
Yokosuka	**Japan**	**31 Jan to 31 Jan**
Manila	Philippines	17 Feb to 19 Feb
Subic Bay	Philippines	21 Feb to 26 Feb
Hongkong	Hongkong	4 March to 8 March
Yokosuka	**Japan**	**28 March to 31 March**
Yokosuka	**Japan**	**1 April to 5 April**
Chinhae	S.Korea	9 April to 13 April
Yokosuka	**Japan**	**17 April to 23 April**
Yokosuka	**Japan**	**27 April to 15 May**
Yokosuka	**Japan**	**3 June to 9 June**
Subic Bay	Philippines	19 June to 23 June
Diego Garcia	Indian Ocean	9 Aug to 13 Aug
Fremantle	Australia	13 Sept to 18 Sept
Subic Bay	Philippines	2 Oct to 6 Oct
Yokosuka	**Japan**	**16 Oct to 1 Dec**
Yokosuka	**Japan**	**2 Dec to 8 Dec**
Yokosuka	**Japan**	**13 Dec to 31 Dec**

From this history, the Reeves must have been free of nuclear weapons for the whole of 1984 to have been so for all its Japan visits that year, except possibly for the short period during which it visited Pearl Harbour in February and March. The same conclusion follows for 1985 unless the ship made several very rapid dashes to the American mainland to load its nuclear weapons briefly, before shortly afterwards unloading them again.

DDG 2I COCHRANE Charles F Adam class Guided Missile Destroyer ASROC

PORT	COUNTRY	DATES OF VISIT
Subic Bay	Philippines	2 Jan 4 Jan 1984
Masirah	Oman	17 Feb to 21 Feb
Masirah	Oman	29 March to 31 March
Masirah	Oman	1 April to 2 April
Phuket	Thailand	23 April to 27 April
Singapore	Singapore	30 April to 1 May
Yokosuka	**Japan**	**10 May to 11 May**
Yokosuka	**Japan**	**12 May to 30 June**
Yokosuka	**Japan**	**1 July to 1 July**
Yokosuka	**Japan**	**3 July to 3 July**
Yokosuka	**Japan**	**4 July to 5 July**
Yokosuka	**Japan**	**6 July to 8 July**
Chinae	S.Korea	11 July to 12 July
Kure	**Japan**	**19 July to 21 July**
Yokosuka	**Japan**	**26 July to 29 July**
Yokosuka	**Japan**	**30 July to 3 Aug**
Yokosuka	**Japan**	**4 Aug to 13 Aug**
Sasebo	**Japan**	**23 Aug to 28 Aug**
Yokosuka	**Japan**	**10 Sept to 12 Sept**
Yokosuka	**Japan**	**24 Sept to 30 Sept**
Yokosuka	**Japan**	**2 Oct to 3 Oct**
Yokosuka	**Japan**	**8 Oct to 14 Oct**
Subic Bay	Philippines-	26 Oct to 27 Oct
Subic Bay	Philippines	30 Oct to 30 Oct
Subic Bay	Philippines	2 Nov to 3 Nov
Chinae	S.Korea	5 Dec to 9 Dec
Yokosuka	**Japan**	**13 Dec to 31 Dec**
Yokosuka	**Japan**	**1 Jan to 20 Jan 1985**
Yokosuka	**Japan**	**26 Jan to 31 Jan**
Subic'Bay	Philippines	17 Feb to 25 Feb
Hongkong	Hongkong	4 March to 8 March
Yokosuka	**Japan**	**28 March to 31 March**
Yokosuka	**Japan**	**1 April to 3 April**
Muroran	**Japan**	**7 April to 7 April**
Yokosuka	**Japan**	**12 April to 28 April**
Yokosuka	**Japan**	**29 April to 2 May**
Yokosuka	**Japan**	**9 May to 15 May**
Yokosuka	**Japan**	**3 June to 9 June**
Subic Bay	Philippines	19 June to 23 June
Diego Garcia	Indian Ocean	8 July to 12 July
Masirah	Oman	27 July to 28 July
Masirah	Oman	20 Aug to 21 Aug
Fremantle	Australia	13 Sept to 18 Sept
Subic Bay	Philippines	2 Oct to 6 Oct
Yokosuka	**Japan**	**15 Oct to 12 Nov**
Hongkong	Hongkong	27 Nov to 1 Dec
Yokosuka	**Japan**	**13 Dec to 15 Dec**
Yokosuka	**Japan**	**16 Dec to 20 Dec**
Yokosuka	**Japan**	**21 Dec to 31 Dec**

It would appear from this information that to have been nuclear weapon free for all its Japanese visits, the Cochrane must have been so at least from 29 March 1984, and stayed so for the remainder of 1984 and the whole of 1985, a very surprising situation.

The Cochrane was homeported in Yokosuka in 1984.

DD 972 OLDENDORF Spruance class Destroyer ASROC

PORT	COUNTRY	DATES OF VISIT
Yokosuka	**Japan**	**1 Jan to 20 Jan 1985**
Yokosuka	**Japan**	**21 Jan to 21 Jan**
Yokosuka	**Japan**	**26 Jan to 27 Jan**
Yokosuka	**Japan**	**28 Jan to 30 Jan**
Subic Bay	Philippines	15 Feb to 15 Feb
Subic Bay	Philippines	16 Feb to 20 Feb
Subic Bay	Philippines	21 Feb to 27 Feb
Hongkong	Hongkong	4 March to 8 March
Yokosuka	**Japan**	**15 March to 23 March**
Yokosuka	**Japan**	**25 March to 29 March**
Yokosuka	**Japan**	**4 April to 12 April**
Chinhae	S. Korea	17 April to 17 April
East China Sea	E. China Sea	18 April to 20 April
Yokosuka	**Japan**	**25 April to 28 April**
Yokosuka	**Japan**	**2 May to 13 May**
Yokosuka	**Japan**	**20 May to 7 June**
Yokosuka	**Japan**	**9 June to 9 June**
Subic Bay	Philippines	19 June to 23 June
Masirah	Oman	27 July to 28 July
Diego Garcia	Indian Ocean	15 Aug to 19 Aug
Fremantle	Australia	13 Sept to 18 Sept
Subic Bay	Philippines	1 Oct to 6 Oct
Yokosuka	**Japan**	**16 Oct to 27 Oct**
Yokosuka	**Japan**	**28 Oct to 1 Nov**
Yokosuka	**Japan**	**2 Nov to 13 Nov**
Hongkong	Hongkong	27 Nov to 1 Dec
Yokosuka	**Japan**	**13 Dec to 31 Dec**

Again, discounting rapid dashes to the American mainland and back, it appears from this history that the Oldendorf must have been without its nuclear ASROC missiles for the whole of 1985 to comply with Japanese policy during its visits that year.

SSN 604 HADDO Permit class Attack Submarine SUBROC †

PORT	COUNTRY	DATES OF VISIT
Yokosuka	**Japan**	**9 March to 9 Mar 1985**
Yokosuka	**Japan**	**22 April to 27 April**
Subic, Bay	Philippines	7 May to 22 May
Hongkong	Hongkong	2 June to 7 June
Subic Bay	Philippines	10 June to 15 June
Yokosuka	**Japan**	**16 July to 28 July**

† See Appendix 1.

This is the complete record of visits for the Haddo in 1985. It implies that this attack submarine was devoid of nuclear weapons for the whole period of about four and a half months.

These Japanese port calls were to ports outside H-46 or H-53 helicopter range of United States nuclear weapons storage areas. This makes direct offloading and reloading by air a very unlikely possibility for the Japanese visits considered. There is no evidence of the regular presence of suitable support ships for off-loading at sea, and the possibility of transfer to other small craft has already been discussed.

The ships for which histories have been presented are representative of most of the classes of nuclear capable ships that visited Japan during 1984 and 1985. A summary of the numbers of nuclear capable ships in each class that visited is given below.

CLASS		1984	1985
CVN	(2)	1	0
CV	(4)	1	1
CGN	(6)	2	0
CG	(11)	5	3
DDG	(12)	5	2
DD	(15)	6	2
FFG	(3)	0	0
FF	(28)	10	5
SSN	(35)	12	15

The numbers in brackets give the total number of nuclear capable ships of each class in the US Pacific Fleet in 1984. The total number of nuclear capable ships including SSBN (3) and BB (1) was 120.

TRANSIT AND INTRODUCTION: DEPLOYMENT AND CONSULTATION.

The three non-nuclear principles, together with the requirement that the United States must consult the Japanese Government concerning any major changes planned in the types of weapons deployed in Japan, would seem to make it impossible for the Japanese Government to allow any possibility that nuclear weapons enter Japan. Yet the material just presented makes it very difficult to deny that this has happened during past US Navy ship visits, and still happens. Furthermore, this material must be available to the Japanese Government. How is it possible for this Government to accept these ship visits?

The answer appears to be that the Japanese Government applies the 'no introduction' principle in a way said by some observers to be 'full of diplomatic delicacy and semantic subtlety',[15] and may accept an interpretation of the principle permitting the carrying of nuclear weapons on ships entering Japanese ports in transit. The logic of the Government's position is that since the United States has an obligation to engage in prior consultation with the Government before introducing nuclear weapons into the country, and since such consultation has never been sought before requesting permission for a warship visit, then the ships cannot be carrying nuclear weapons. It has also been argued that the temporary introduction of nuclear weapons on ships does not constitute deployment, so prior consultation is not required in these situations.[16] Subtleties in the translation of 'introduction' into Japanese have also been used as a basis for justifying nuclear capable ship visits.[18]

Two facts emerge from the ship visit histories for Japan presented above that challenge these arguments. These are the duration of some visits, and the homeporting of US Navy ships in Japanese ports. It can be seen that some of the ships whose movements are presented spent weeks to months on end in the same Japanese port according to their visit records. The Cochrane, for example, was in Yokosuka from 21 May to 30 June 1984 and from 13 December 1984 to 20 January 1985, it was homeported there that year. The Midway was in the same port from 1 July to 14 August 1984, and from 13 December 1984 to 31 January 1985. This ship has been homeported in Yokosuka since 1973.[19]

The Kirk, also homeported in Yokosuka in 1984, was in that port essentially continuously from 20 August 1984 to 13 January 1985, almost five months. It cannot reasonably be argued that ships remaining in a port for periods of these durations are in transit.

If these long stays represent an aspect of the ships being homeported in Yokosuka, are we asked to believe that the United States removes the nuclear` weapons from its ships;- homeported in Japan to honour Japanese policy, and leaves them unarmed to this extent for very long periods? The United States° is still using homeports for some of its ships in Japan, including at present two ships capable of carrying nuclear Tomahawk cruise missiles (see Appendix' 1), the destroyer DD 991 Fife and the cruiser CG 52 Bunker Hill, homeported in Yokosuka. Homeporting means that the ship in question is based in that port and operates from it, so the ship will spend periods between operations in the port. Homeporting in Japan is strategically important for the US Pacific Fleet since it places ships near to likely areas of tension and conflict. But these are just the conditions in which the ships would be expected have immediate access to their full complement of weapons, including'; their nuclear weapons. The Japanese non-nuclear principles prohibit the storage of these weapons ashore, so if they are to be available for rapid access, the conclusion that they are on the ships would seem inescapable.

Should this be the case, it destroys any argument relating to prior consultation and deployment not applying to temporary introduction of nuclear weapons. If the weapons are stored on ships that stay in Japanese ports for long periods rather than being in a deployed state, this violates the no storage principle. If they are considered not to be stored while on the ships, they can then only be deployed. There are no other options. Then there should be prior consultation before every United States ship visit by a nuclear capable ship carrying nuclear weapons, for visits of extended duration at least, and from the statement by former Prime Minister Nakasone quoted on page 12, for all visits. This has never happened as far as is known.[4] Further, it can be argued that weapons on ships are normally deployed when the ships are at sea in an operational state. See the comments concerning Tomahawk missiles in the US Navy fleet quoted on page 6, for example. If this was not the case it would leave the ships vulnerable to surprise attack. It is then unlikely that the complete weapons are put in a stored state for port calls.

The conclusions from this section of the present study are the same as for the Scandinavian countries. Nuclear weapons have been entering Japanese ports on US Navy ships for many years, and are still doing so. The Japanese Government knows this, and has attempted to reconcile this situation with its non-nuclear principles by using arguments that do not stand up under close scrutiny.

PORT CALLS BY NUCLEAR CAPABLE SHIPS: NEW ZEALAND

The present New Zealand policy concerning visits by nuclear powered or armed ships was established in 1984 by the newly elected Labour Government, and in 1987 became law. The policy is considered in detail below. Visits by nuclear powered ships are prohibited, and nuclear capable ships are only allowed to visit if the Prime Minister is satisfied that there will be no nuclear weapons on board during the visit. The policy was meant to be framed ' so as to avoid a direct confrontation with NCND, but is not interpreted this way by the United States and the United Kingdom as will be seen. There have been no visits by naval ships from these two countries since the policy was introduced.

The history of ship visits prior to the 1984 election is considered here for two reasons. There has always been strong interest in whether or not nuclear capable ships that visited in the past were ever nuclear armed. Evidence relating to this question will be presented. The only other major political party in New Zealand, the National Party, consistently stated from 1984 to March 1990 that if elected in 1990 it would repeal the sections of the existing legislation that relate to nuclear capable ship visits and allow these under the NCND policy as it did in the past. The National Party unexpectedly changed its nuclear policy in March 1990. If they become the government they will now retain the existing legislation. The question of the nuclear weapons free status of ships during visits under previous National governments is important with respect to this sudden policy shift which is discussed further below.

INDIVIDUAL NUCLEAR CAPABLE SHIP MOVEMENTS: 1983 and 1984

FF 1037 BRONSTEIN Bronstein class Frigate ASROC

PORT	COUNTRY	DATES OF VISIT
Manila	Philippines	1 Jan to 2 Jan 1984
Bacolod	Philippines	5 Jan to 6 Jan
Subic Bay	Philippines	9 Jan to 10 Jan
Subic Bay	Philippines	16 Jan to 17 Jan
Guam	Guam	28 Jan to 8 Feb
Guam	Guam	9 Feb to 9 Feb
Honiara	Solomon Islands	15 Feb to 16 Feb
Townsville	Australia	20 Feb to 22 Feb
Mackay	Australia	24 Feb to 27 Feb
Sydney	Australia	6 March to 11 March
Brisbane	Australia	22 March to 25 March
Tauranga	**New Zealand**	**30 March to 31 March**
Tauranga	**New Zealand**	**1 April to 4 April**
Noumea	New Caledonia	5 April to 6 April
Suva	Fiji	9 April to 10 April
Apia	W. Samoa	12 April to 13 April
Pearl Harbour	Hawaii	21 April to 22 April
Pearl Harbour	Hawaii	11 June to 20 June

United States nuclear weapons are stored at Guam and Pearl Harbour. If this ship off-loaded its ASROC missiles in Guam early in February 1984, and reloaded in Pearl Harbour in mid April, it would have been nuclear weapons free while visiting New Zealand. This would have required it to be without nuclear weapons from February 9 to April 12 at least, about two and a half months. It is interesting that the Solomon Islands changed their policy regarding nuclear weapons following this visit by the Bronstein, and banned them from their ports, airspace and airports. They clearly suspected that nuclear weapons were being carried by the Bronstein at this time.

SSN 651 QUEENFISH Nuclear Powered Sturgeon class Attack Submarine SUBROC

PORT	COUNTRY	DATES OF VISIT
Pearl Harbour	Hawaii	2 April to 5 Dec 1983
		Many visits
Yokosuka	**Japan**	**16 Dec to 29 Dec**
Subic Bay	Philippines	4 Jan to 4 Jan 1984
Diego Garcia	Indian Ocean	5 March to 5 March
Auckland	**New Zealand**	**23 March to 29 March**
Guam <	Guam	10 April to 30 April
Subic Bay	Philippines	6 May to 10 May
Pearl Harbour	Hawaii	6 June to 30 June, and many other visits 1984

For this nuclear attack submarine to have been free of nuclear weapons both in Yokosuka and subsequently in Auckland, it would have had to remain so from December 5 1983, when it left Pearl Harbour after depositing its SUBROC missiles, to 10 April 1984 when it arrived in Guam or to 6 June when it reached Pearl Harbour. This is a period of four to six months, unusual for an attack submarine at sea, and merely to accommodate one visit to Japan and one to New Zealand free of nuclear weapons, although this was not a requirement in New Zealand when the Queenfish was in Auckland.

FFG 3 SCHOFIELD Brooke class Guided Missile Frigate ASROC

PORT	COUNTRY	DATES OF VISIT
Pearl Harbour	Hawaii	14 Oct to 16 Oct 1983
Subic Bay	Philippines	1 Nov to 2 Nov
Singapore	Singapore	8 Nov to 10 Nov
Bahrain	Bahrain	31 Dec to 31 Dec
Bahrain	Bahrain	11 Jan to 8 Jan 1984
Bahrain	Bahrain	18 Jan to 20 Jan
Bahrain	Bahrain	1 Feb to 4 Feb
Colombo	**Sri Lanka**	**17 Feb** to **18 Feb**
Fremantle	Australia	27 Feb to 1 March
Melbourne	Australia	7 March to 12 March
Dunedin	**New Zealand**	**17 March to 18 March**
Auckland	**New Zealand**	**23 March to 24 March**
Pearl Harbour	Hawaii	4 April to 5 April

Sri Lanka also has a policy forbidding ships carrying nuclear weapons from entering its ports, but no declaration to this effect or inspection of visiting ships is required.[5] To be free of nuclear weapons in Colombo and in New Zealand the Schofield would have had to off-load them in Pearl Harbour by October 16 1983, and to have been free of them until April 4 1984 at least, a period of five and a half months.

FF-1062 WHIPPLE Knox class Frigate ASROC

PORT	COUNTRY	DATES OF VISIT
Pearl Harbour	Hawaii	1 Jan to 15 Sept 1983 Many visits.
Subic Bay	Philippines	30 Sept to 3 Oct
Phayatta	Thailand	8 Oct to 11 Oct
Singapore	Singapore	14 Oct to 11 Oct
Bahrain	Bahrain	10 Nov to 12 Nov
Muscat	Oman	26 Nov to 27 Nov
Bahrain	Bahrain	10 Dec to 19 Dec
Bahrain	Bahrain	12 Jan to 16 Jan 1984
Bahrain	Bahrain	6-Feb-to 8 Feb
Cochin	**India**	**16 Feb to 17 Feb**
Fremantle	Australia	27 Feb to 1 March
Melbourne	Australia	7 March to 12 March
Lyttleton	**New Zealand**	**17 March to 18 March**
Auckland	**New Zealand**	**23 March to 24 March**
Pearl Harbour	Hawaii	4 April on, many visits.

India does not welcome nuclear armed ships in its ports, and it is made clear to the nuclear powers that they should not make requests for such visits. It is assumed that the policy is complied with, and no further checks are made for most classes of ships. Some classes like aircraft carriers, assumed to be always nuclear armed, are banned from visiting.[5] The Whipple would have off-loaded its nuclear weapons in Pearl Harbour by September 15 1983 for this cruise to have complied with Indian wishes and to be nuclear weapons free in New Zealand. It could then have reloaded after April 4 1984, some six and a half months later.

New Zealand, like Japan, is quite remote from all known United States nuclear weapons storage areas. This means that it is not possible to off-load nuclear weapons from US Navy ships by helicopter to land storage depots before New Zealand port calls. Transhipment to other vessels would have been the only possibility for the visits considered. But United States ship visit records for New Zealand and Australia show no indication of the presence of suitable storage vessels in the period of interest around March 1984, not that these vessels could have entered New Zealand ports along with the ships they were servicing. The only other vessels known to be in the vicinity at this time were the other visiting warships.

The only occasion when more than one of the vessels whose visits have been listed were in port together was on 23 to 24 March when the Queenfish, Whipple, and Schofield were in Auckland. But they could not have off-loaded nuclear weapons to each other then. So Queenfish-could not have used Whipple or Schofield to store her SUBROC missiles for example, off-loading from a submarine at sea would be most hazardous in any case. The Bronstein was quite alone when it visited Tauranga, and the Schofield and Whipple were already in Pearl Harbour by the time Bronstein ended her Tauranga visit on 4 April, so could not have been storing her nuclear weapons. It seems inescapable that unless all these vessels were nuclear weapon free for the periods stated they were nuclear armed while in New Zealand.

The only other United States warship to visit New Zealand in 1984 was the Wadsworth FFG 9, an Oliver Hazard Perry class frigate not considered nuclear capable.[9] It appears highly probable from the histories given that all the nuclear capable ships that visited New Zealand in 1984 were carrying nuclear weapons. It can be inferred from this that major United States naval ships at least that visited New Zealand in the years prior to 1984 were also almost definitely carrying their nuclear weapons. These included the nuclear powered guided missile cruiser Texas CGN 39, and the nuclear powered attack

submarine Phoenix SSN 702 in 1983, and in 1982 and 1980 the nuclear powered' guided missile cruiser CGN 35 Truxtun.

The evidence presented is considered to be sufficient to establish with near certainty that nuclear weapons did enter New Zealand ports on visiting United States warships during 1984 prior to the election, and to suggest that this was the practice in previous years. Documents obtained under the New Zealand Official Information Act show that up to 1983 it had been the practice for some years for the New Zealand Government late each year to grant a blanket clearance for all visits by conventionally powered US Navy ships during the following year, with no regard to their nuclear weapons status. They further show that around 1983 at least, the National Government of the time was also willing to grant clearance for individual nuclear powered ship visits. Following the sudden reversal of National Party nuclear policy in February 1990, New Zealand for the first time has bipartisan nuclear legislation, described in detail in the next section, that should preclude nuclear powered or armed ship visits for the foreseeable future.

This change in position by the National Party was announced by its Leader, Jim Bolger, in a press statement published in The Dominion newspaper on 9 March 1990. Mr Bolger said that the change in policy by his Party recognises major changes in the world political scene, especially in Europe, shifts in defence arrangements between the United States and other Pacific rim states, and a softening in attitude to New Zealand by the United States. He further said that ship visits would no longer be accepted under NCND, a major change of position since he was reported on the 28th of April 1989 as stating that a National government would seek:

> an explicit understanding from the United States that it respected New Zealand's wish to keep nuclear weapons out of New Zealand. New Zealand, in turn, would acknowledge the NCND policy of the United States.[20]

The National Party Spokesman on Disarmament, Dough Graham, in a letter to the author dated 23 March 1990 stated that National believes that NCND should be reviewed by the United States, and National will work to encourage an alternative to nuclear deterrence.

This concludes the detailed study of naval ship visits and the movements of specific ships to nuclear free ports. Taken together, the cases presented for the Scandinavian countries, Japan, and New Zealand are completely consistent. For the United States to have respected the non-nuclear port visit policies of the countries involved, United States nuclear capable naval : ships would have to have cruised without their nuclear weapons on frequent occasions during 1984 and 1985 for periods that stretch the bounds of credibility.

It is claimed on the basis of this material alone that the initial assertions expressing the real use of NCND and the implications of that use are established, at least for the 1984/1985 period. The continued pattern of ship visits after 1985 where this is available, and the extreme sensivity to any challenge to NCND discussed below, make it clear that there has been no change in the operation of the policy.

Further evidence supporting the claimed misuse of NCND is now presented.

NCND AND SENSITIVITY TO CHALLENGE.

Events relating to the 1984 New Zealand election, to the 1988 election in Denmark triggered by an attempt to strengthen their existing non-nuclear policy, and to the action of the Japanese port of Kobe in banning nuclear armed ship visits are now analysed to reveal their implications for the NCND policy.

THE NEW ZEALAND NUCLEAR FREE POLICY AND REACTIONS TO IT.

The New Zealand Labour Government, elected in 1984 with a strong anti-nuclear policy, passed legislation in 1987 making this policy law. The New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act[21] contains prohibitions relating to the manufacture, acquisition, storage, and introduction of nuclear weapons into New Zealand, their control within the New Zealand Nuclear Free Zone by New Zealand citizens or people normally resident in New Zealand, and any involvement with nuclear weapons by New Zealand military personnel It prohibits visits to New Zealand ports by all nuclear powered or nuclear armed ships. The Act is a seen as a strong rejection of nuclear military strategies by the people of New Zealand and the present government. In particular, it is seen in many quarters to express a rejection of nuclear deterrence, as was confirmed by the past American Ambassador Paul Cleveland a speech on 12 April 1989[22] and by the then New Zealand Prime Minister David Lange in a speech on 24 April 1989 at Yale University.[23]

These provisions of the Act and their implications are all significant for allies with defence strategies centred around nuclear weapons. Further, they apply at all times and not just in peacetime as for the non-nuclear policies of some allied countries like Denmark.[4] Yet of all the prohibitions in the Act, one in particular is most frequently singled out as the key element that caused the subsequent difficulties for New Zealand in her defence relations with her major allies, and her suspension in 1986 from the ANZUS alliance. This key element is the prohibition on visits to New Zealand ports by foreign warships that might be carrying nuclear weapons. Only if the Prime Minister is satisfied that a warship that normally carries such weapons will be free of them for the visit period is a visit to New Zealand approved.[24] How the Prime Minister might make this decision has been considered elsewhere.[4]

Why is it that this section of the Act is seen as so significant by the United States and the United Kingdom that there have been no visits by their navies since the policy was introduced? Baroness Young, United Kingdom Minister of State, Foreign and Commonwealth Office, said, during her visit to New Zealand in 1986:

> Nor could we agree to other governments making an assessment of the nuclear status of a particular, ship and acting on that assessment for instance by accepting or declining a visit by that ship. That would be tantamount to telling potential enemies whether it was carrying nuclear weapons.[25]

The American Ambassador to New Zealand Paul Cleveland stated in 1986 that:

> By requiring the Prime Minister to satisfy himself that a ship has no nuclear explosive devices before admitting it, legislation as now drafted would lead us, for the first time in the history of our alliances to an unacceptable dilemma: either we would conform to the law and render NCND useless or we (or the New Zealand Prime Minister) must deliberately flout the laws of New Zealand.[26]

Baroness Young's argument is rather strange since very few British naval ships capable of carrying nuclear weapons ever visit New Zealand. A list of Royal Navy ships that visited New Zealand ports in the ten years prior to the 1984 election includes only one major nuclear capable ship, HMS Invincible that visited in 1983, and two nuclear weapons transport ships from 33 different ships that made a total of 36 visits.[27]

Further, it is very unlikely that any of the other 40 ships that visited New Zealand on 65 different occasions from 1958 to 1973 were carrying nuclear weapons.[27] This does not seem to make the restriction on ship visits a particularly problematic part of the Act for the United Kingdom.

Ambassador Cleveland's statement is equally interesting because the New Zealand legislation is very carefully drafted so as not to violate NCND. David Lange then Prime Minister of New Zealand, made this clear in an address on 1 May 1988 to the Nuclear Age Peace Foundation in California.[28] Discussing the legislation he said:

> In taking this action, (to exclude nuclear weapons from our ports and territory) we were careful not to directly confront the long established United States policy of neither confirming nor denying the presence of nuclear weapons on their ships and aircraft. Our answer to this problem was simple, although it has been widely, and perhaps deliberately, misrepresented. We decided not to request any information from the visiting captain or government concerned, but to make our own judgement. That is what the law requires. If in our assessment the vessel is non-nuclear, it is welcome to visit. If we conclude that the, vessel is nuclear, its request will be declined. But the basis of our assessment, and the request itself, will not be made public.

Yet the Americans and British reacted very strongly showing great sensitivity to any form of challenge to the NCND policy, and stopped all ship visits. There are a number of ships and classes of ships in these countries' navies that are unquestionably not equipped with nuclear weapons.[29] These ships could visit New Zealand under the Labour policy without any problem with NCND. For the British this would have required merely a continuation of the pattern of most of their previous visits. Given David Lange's statement that refused visits would be kept secret, the only difficulty with the policy would arise if a nuclear capable ship was granted permission to visit, and was thereby labelled as free of nuclear weapons at that time. But such ships regularly visit Denmark and other countries which have non-nuclear policies. These visits should also require that the ships be nuclear weapons free at the time - as will be explained. Nevertheless, the United States and, presumably, Britain do see the New Zealand and Danish policies as different. Ambassador Cleveland has said several times that the New Zealand and Danish policies are different, 'Denmark allows ship visits, New Zealand does not'[30]

The pivotal role of the nuclear capable ship visit clause in the New Zealand legislation is further emphasised by statements from several United States sources. A report in the New Zealand Herald of July 14 1988[31] quotes the US State Department as confirming that if New Zealand were to seek a vessel clearance procedure that did not conflict with existing American policy, that would ‘provide a basis for addressing the return of New Zealand to full ANZUS alliance participation'. No other section of the legislation is mentioned. An article entitled *Shultz Gives Rules for NZ in ANZUS* in the Dominion of June 30 1988 reports a discussion between George Shultz, then Secretary of State, and the Australian Foreign Minister at that time, Bill Hayden, concerning ANZUS in which George Shultz is reported as saying that the United States and Australia would welcome New Zealand back into ANZUS as long as it was an ally.[32] From the rest of the article, what being an ally would involve for New Zealand appears to be allowing American ships to make port calls without saying whether they were nuclear armed. Again no other requirements relating to the legislation were mentioned. Ambassador Cleveland in a speech on 12 April 1989 entitled *United States/New Zealand Relations: Some Parting Observations,* delivered shortly before the end of his term in New Zealand, once more emphasised the ship visit problem as the key element in the New Zealand policy that blocks an improvement in defence relations between the two countries.[22]

By contrast, the Labour prohibition on visits by nuclear powered ships at all times has received relatively little comment even though it excludes a significant fraction, some 36%[9] of United States nuclear capable ships from New Zealand ports.

NCND AND THE 1988 DANISH ELECTION

This sensitivity to any action that might restrict ship movements under the NCND policy was very strikingly manifested during the period that culminated in the recent Danish election on 10 May 1988. For over 30 years Denmark has had a policy of not admitting nuclear weapons to Danish territory including Danish harbours and waters in peacetime. A policy statement continues:

> Foreign powers are conversant with this policy and Denmark expects it to be respected by ships entering Danish territorial waters. The Danish Government does as such not question compliance, as it does not want to express distrust in its allies.[5]

This is a seemingly clear statement of policy that should guarantee Danish ports are free from nuclear weapons. Indeed, in answer to a request for clarification of the United States position concerning the Danish policy, M J Gould, Counsellor for Public Affairs at the US Embassy in New Zealand, wrote in 1986:

> In answer to your question, let me give you the open assurance that the Governments of Denmark and the United States hold each other in the highest regard and do not question each others respective policies.[33]

Under this policy the United States in particular has sent nuclear capable ships to Danish ports for many years (see p.11) with no apparent qualms about conflicts between NCND and Danish policy. A simple interpretation of Gould`s statement would then suggest that for all such visits the ships must be free of nuclear weapons to respect Danish policy. In turn, so that it can respect NCND, the Danish Government does not insist on public declarations regarding armaments on visiting ships. But this would mean that a visit to a Danish port automatically and publicly labels a ship as free of nuclear weapons, just as Baroness Young and Ambassador Cleveland complained the New Zealand policy would. So the NCND policy would effectively fail for these visits, and fail because of Danish policy. Why do the United States and Britain not object as they did for New Zealand? Recent events in Denmark suggest why.

A very curious sequence of events occurred following the unexpected victory in the Danish Parliament in April 1988 of an Opposition resolution requiring the captains of visiting foreign warships to each be sent a letter reminding them of Danish policy regarding nuclear weapons. An innocuous change to the existing policy it would seem if Denmark's allies have been respecting this policy in the past: No declaration of the nuclear armed status of the visiting ships was required, but the resolution produced very strong reactions from the United States and Britain. The US State Department said it was deeply distressed, and the vote could have extremely serious consequences for US-Danish defence cooperation if interpreted in a manner inconsistent with the United States policy of NCND. The State Department spokesperson Charles E Redman also said that the resolution could:

> go to the very heart of the meaning and interlocking nature of our mutual commitments within the NATO alliance and make it impossible for US and other alliance warships to visit Danish ports or participate with Denmark in naval exercises.[34]

The British Prime Minister, Mrs Thatcher, warned that Denmark's decision had very grave implications for NATO, and NATO's Secretary-General at the time, Lord Carrington, said:

> If the Danish Government resolution were implemented in such a way that it interfered with the long-standing cooperative and interlocking defence interests of the alliance, this would have serious consequences.[35]

It should be borne in mind when considering these events that both Denmark and Norway, NATO allies, ban the storage or deployment of nuclear weapons on their' land territory in peacetime. This represents a considerable restriction on NATO nuclear strategy, but no serious objections are voiced to these prohibitions.

The Danish Prime Minister, Poul Schlueter, expressed the view of his coalition government by saying:

We consider that the resolution endangers Denmark's membership of NATO and we fear that its consequences will be to isolate us from our allies[35]

The Danish Government resigned, and a snap election was set for 10 May. NATO nuclear planning talks that were to be held in Denmark at the end of April were shifted to Brussels, a joint NATO decision not requested by Denmark[36] A planned visit by British warships near the election date was cancelled at the request of the Danish Government.

Following the election, which produced no major changes in the distribution of seats amongst the Danish parties and which saw Poul Schlueter reinstated, the ship visit problem was solved in a manner acceptable to Denmark's allies. Their embassies were reminded of the Danish policy regarding nuclear weapons in a letter that contains the following sentence to be included in every clearance for a foreign warship visit given to the diplomatic mission of the country concerned:

The Danish Government assumes that the visit of vessels will be in compliance with rules laid down by the Danish Government.

This was announced by Mr Schlueter in his inaugural address to his new Parliament on 7 June 1988, where he continued by saying:

The government considers that this procedure respects both the Danish non-nuclear policy and the views of our Allies.

The use of the word 'assumes' here rather than 'is satisfied', for example, shows again the unwillingness of the Danish Government to challenge its allies actively regarding ship visits. It effectively leaves things as they were prior to the election with the onus on visiting countries to honour Danish policy

Visits by United States nuclear capable ships resumed in July with the arrival in -Aalborg of the destroyer DDG 17 Conyngham, normally equipped with ASROC missiles. This was followed by visits to Aarhus in September by the destroyers DDG 43 Dahlgren, equipped to carry ASROC and Terrier missiles, and DD 963 Spruance, a Tomahawk sea launched cruise missile platform.

The strength of these reactions to a resolution that appeared merely to express in a more direct way a well established and presumably respected policy is astonishing. Equally astonishing is the subtlety of language used to argue the danger of the change the resolution sought. There was talk of the meaning and interlocking nature of mutual commitments within NATO, of long-standing and cooperative defence interests. All quite reasonable in many circumstances when discussing alliance relationships, but here, when applied to ship visits under an apparently unambiguous policy, quite puzzling. Again, what is the astonishing difference in terms of Danish policy between the procedure sought in the resolution that triggered this furore, and the final procedure that proved quite acceptable to Denmark's allies? When considering this peculiar sequence of events the contrasting situation in Denmark for nuclear powered ship visits should be recalled. Denmark has stringent safety requirements relating to such visits, and these involve providing details of ships nuclear propulsion units that the US Navy refuses to release.[5] Consequently no United States nuclear powered ship has visited Denmark since 1964, but objections to this effective restriction on naval visits are not voiced. A press release by a spokesperson from the US Embassy in New Zealand claims this merely reflects a lack of operational need and the availability of alternative ports for these ships.[37] Yet, as stated earlier, this applies to about 36% of the United States nuclear capable fleet.

All these confusing aspects of the Danish and New Zealand situations vanish if the two very disturbing assertions made in the introduction are accepted as established.

These assertions, long accepted as fact by many people in countries exposed to the workings of NCND, would explain the strong reactions to the New Zealand and Danish cases and the doublespeak used when discussing this delicate issue. The United States and Britain want to conceal the fact that they really do violate the policies of their allies that they regularly behave dishonourably. They take nuclear weapons into the ports of Denmark for example, the Danish Government knows it, but neither party says anything. Hence the concern from the United States, Britain, and Denmark itself at the contentious resolution of April 1985. Innocent as it seemed, it would have exposed individual ships captains to having to face their consciences knowing they were about to cheat the Danish people and bring nuclear weapons into a Danish port. This could have had undesirable results at times, which would have been extremely embarrassing both for the Danish Government that could then no longer hide behind the 'trusting our allies' approach they have used for so long to excuse themselves from knowledge of this repeated cheating, and for the country whose visiting ship was involved and that had hitherto not faced such direct and repeated problems concerning the presence of its nuclear weapons.

They also explain the reactions to the carefully tailored New Zealand policy, since implementing that policy would have revealed to the New Zealand Government repeated attempts to bring nuclear armed ships into New Zealand ports as, it has been argued, was done prior to 1984. It cannot be claimed that the contentious Danish resolution in any way endangered the security of nuclear weapons, one argument commonly used to justify their concealment under NCND. If the non-nuclear policy of Denmark was being respected prior to April 1988, visiting ships would not be carrying nuclear weapons and this would be known publicly, so the new resolution would have produced no change.

There is other indirect evidence that the policies of Denmark, Norway, and Sweden have not always been respected. In 1974 Rear Admiral Gene LaRoque, US Navy (retired), declared before a Congressional subcommittee:

> My experience has been that any ship that is capable of carrying nuclear weapons carries them. They do not off-load them when they go into foreign ports such as Japan or other countries. If they are capable of carrying them they normally keep them aboard ship at all times except when the ship is in overhaul or in for major repairs.[39]

A rather astonishing interview took place in April 1988, around the time of the controversial resolution in the Danish Parliament, between Jorgen Dragsdahl a reporter for the Danish newspaper *Information*, and Paul Warnke a highly respected United States spokesperson. Paul Warnke was an Assistant Secretary for Defence in 1967 and 1968, Director of the Arms Control and Disarmament Agency and chief arms control negotiator in 1977 and 1978, and negotiated the SALT 2 Treaty. Referring to the strong reactions from the United States to the opposition resolution he said 'you are getting what you deserve'. Warnke saw nothing surprising in the warnings which the American Embassy in Denmark had issued since it has for decades been United States policy that the armaments of warships are of no consequence when visiting countries not wishing to accommodate nuclear weapons. 'It is a frivolous topic you have brought up' he said referring to the ship visit issue.

> There is no sense in it. The reactions you are receiving are what you have been asking for. It won't change United States policy, and that could not be expected either. The choice the United States is confronted with is either: stay away - or tell untruths. We do not want to do either. Your government knows very well that we have brought the weapons in.

When asked how he knows that there are nuclear weapons on board when warships visit Denmark Warnke replied:

> One does not change the armaments just because of a port call. What should one do? Place them on a barge in the meantime? Or first deliver them to the United States and then pick them up again? Obviously one does not want to do this.

To the question, 'So the United States has then violated Danish policy which has been in place for thirty years?' Warnke replied, 'That's correct and you have accepted it.'

The question, 'What is wrong with stressing Danish policy in connection with visits of warships?', elicited the response:

> You have a policy against stationing of nuclear weapons. American warships have no bases in Denmark. This is a frivolous matter.'

Warnke saw the ship visit problem as totally insignificant in the light of greater disarmament problems.[40]

A United States disarmament negotiator who visited New Zealand in 1989 echoed Warnke's statements when he said that he also suspected that nuclear weapons went into Danish ports on United States ships sometimes, that the Danish government knew this and that they wanted things to stay that way. Other respected United States figures have said the same. Their statements will be considered when violations of NCND are discussed.

These strong reactions also reflect the concerns of the United States and Britain that if even a minor challenge to NCND was allowed to succeed, other countries might follow the example given and start to restrict ship visits. This would impede the free movement of naval nuclear weapons. An indication of this increasing concern is considered to be reflected in a recent claim by the visiting United States disarmament negotiator referred to above that it is the allies of the United States that want NCND retained. Ambassador Cleveland in his April 1989 speech in New Zealand made a similar claim while discussing NCND when he said that the United States was unlikely to change the policy ‘which all its other allies fully supported.'[22] Such attempts to provide very contestable justification for NCND in terms of the interests and wishes of allies are interpreted in this study as intended to counter growing unrest in allied countries regarding the implications for them, in terms of their policies and their safety, of continuing to accept ship visits under NCND. In the New Zealand case, it is contended, what the United States really wants is to have its ships back in New Zealand ports so the world can see that New Zealand has come back into the fold on American terms.

THE PORT OF KOBE.

To conclude this section, one final case of the working of NCND that again supports the above assumptions is considered briefly. This is the case of ship visits to the port of Kobe, a port that is now unique in Japan. Kobe opened its now very busy port in 1868. Part of the port was used as a foreign naval base after the second world war. In 1974 as a result of a campaign by the citizens of Kobe for a peaceful port the base was withdrawn, and on March 18 1975 a resolution was passed requiring every visiting warship to supply a guarantee in writing that it was not carrying nuclear weapons. More that 400 warships visited Kobe in the 15 years prior to 1975, and from 1 January 1970 to March 1975 a total of 22 major United States warships entered Kobe port. Since the resolution was passed no United States warships have called at the port of Kobe.[14]

The point of interest here is that the Japanese Government purports to operate in accordance with its three non-nuclear principles. If the United States and Britain respect these principles there should have been no need for a change in the pattern of their ship visits to Kobe after 1975, since again the ships involved would always, by visiting, have been labelled as free of nuclear weapons. But their visits stopped. Indeed a British visit was refused by the Kobe authorities in 1982 because a written guarantee that the ships were free of nuclear weapons was not supplied.[14] As with the cases of New Zealand and Denmark, this history becomes simple to understand if seen as another case of the covert misuse of NCND. Ships visiting Kobe prior to 1975 were in some cases undoubtedly nuclear armed, and the Kobe resolution removed this freedom of action.

THE MISUSE OF NCND: ACCIDENTS.

The implications of NCND for nuclear weapons safety in general is considered below. Here accidents involving nuclear weapons that provide very strong evidence for the covert misuse of NCND in isolated instances are examined. The incidents considered in detail are the crash of a B52 aircraft carrying four nuclear bombs on the sea ice near Thule in Greenland on 21 January 1968, and the loss of a B43 thermonuclear bomb off the aircraft carrier Ticonderoga while it was steaming towards Yokosuka in Japan where it subsequently berthed. Two other accidents whose handling reflects problems associated with the covert use of NCND are also described. The presence of nuclear weapons in these incidents is confirmed in documents cited.

THE THULE AFFAIR

The Thule Affair as it is called in an official report of the incident[41] important for the present study because it involved a violation of existing Danish policy covering nuclear weapons in Danish territory. Greenland is administered by Denmark for military purposes, and Denmark has since 1963 banned nuclear weapons from its territory including Greenland. The affair began on 21 January 1968 when a fire developed in a B52 aircraft on a 24 hour airborne alert mission five hours into the flight. Attempts to quell the fire and make an emergency landing at Thule Airbase failed, and the crew bailed out. The aircraft crashed on sea ice eight miles from Thule. The detonation of the conventional explosives in the four 1.1 megaton hydrogen bombs on board dispersed plutonium inside the weapons, which mixed with jet fuel and contaminated a large area of the sea ice and snow. A very large clean up operation was mounted. Even so 'a report published in 1986, eighteen years later, speaks of more than 500 workers who helped in the operation still being affected by contamination they received during the operation, despite official claims that no danger to man or animal and plant life was created by the accident.[42]

The significant events relating to this accident from the point of view of the present study are described in a letter to the author from a Danish Member of Parliament, Pelle Voigt. His letter of 27 November 1986 reads as follows:

On the 21st of January 1968 a B52 loaded with four 1.1 megaton hydrogen bombs crashed about 6.5 kilometres from Thule, Airbase. The B52 was part of the Arctic Airborne Emergency Operation Chrome Dome which was carried out through the sixties. During this period Danish employees at the base reported on numerous occasions the presence of nuclear weapons in spite of official Danish policy. These reports were all denied by the United States Government.

After the crash on January 21, denials were no longer possible. Fragments of the bomb were spread on the ice and in the water.

On February 8 Parliament debated the matter. This was done during the reading of the proposed Finance *Bill* for 1968-69. The result of the debate was the following resolution:

'Parliament continues its reading of the Finance Bill Proposal for 1968-69, presuming that the Government by endeavouring to procure absolute guarantees that no nuclear weapons are stored in Greenland and that Greenlandic airspace be maintained as a nuclear weapons free zone, will secure that Danish nuclear policy is maintained in all parts of the Kingdom and that Danish sovereignty be respected.'

The resolution was carried with three members of Parliament abstaining from voting. As a result of this resolution, talks were held between the Danish Ambassador in Washington and representatives of the United States Government. The results of these talks were presented in an official statement by the Foreign Office dated 31 May 1968. It reads as follows:

'In the light of the plane crash at Thule, the Government instructed our Ambassador in Washington to raise the question of assurances that the Danish nuclear policy is maintained with the Government of the United States, as stated in the Parliamentary resolution of 8 February 1968. During these talks, the Ambassador has confirmed Danish nuclear policy as stated in the Parliamentary resolution, according to which no nuclear ; weapons can be stored *in* Greenland nor any such weapons be flown through Greenlandic airspace. As announced already, no nuclear weapons are present in Greenland, and no flying over Greenland with such weapons is taking place. The result of the talks in Washington has established accordance between the defence agreement of 1951 and Danish nuclear; policy and thus assurance of international law that this policy is respected in Greenland.'

The actual detailed content of this 'assurance of international law' remains classified in Denmark. But its existence is beyond dispute. According to the then Minister of Disarmament a more detailed account of the content of the 'assurance of international law' was given to the Parliament Foreign Affairs Committee on 31 May. The details, however, remain secret and the nature of the information given to the committee is highly classified (see the Official Record of Parliament Negotiations 1968, page 4009). The Secretary of Defence at the time, Robert McNamara, accordingly stopped operation Chrome Dome completely.

Pelle Voigt offered this letter for public use to counter any claims that the secret 'assurance of international law' does not exist. Such claims were made by the United States Embassy in New Zealand.[43]

This statement by Pelle Voigt, and the Thule affair are very significant in relation to NCND. They provide strong evidence for the type of covert misuse of the policy being emphasised in this study. But the claim that the United States gave some secret assurance to Denmark of freedom from nuclear weapons for its land and airspace at least, goes much further. It represents a major violation of NCND of the sort that the United States has always claimed it never makes. The subject of violations of the policy is considered further in a subsequent section.

THE TICONDEROGA ACCIDENT

The full details of this accident were released recently in a publication entitled *Neptune Papers Number 3. Naval Accidents 1945-1988* produced by Greenpeace and the Institute for Policy Studies. The authors are W Arkin and J Handier.[44] Their report of this accident is summarised here.

In 1981 the United States Department of Defence admitted it had lost a nuclear warhead at sea in 1965, and described the accident as follows:

December 5 1965 /A-4/ At sea, Pacific: An A-4 aircraft loaded with one nuclear weapon rolled off the elevator of a US aircraft carrier and fell into the sea. The pilot, aircraft and weapon were lost. The incident occurred more than 500 miles from land.

The details revealed in the new report show that the incident involved the aircraft carrier CVA 14 Ticonderoga while it was steaming from bombing operations off Vietnam to Yokosuka in Japan. An A-4E attack jet loaded with a B43 one megaton thermonuclear bomb rolled off the number 2 elevator and sank in deep water. Important new facts are that the Ticonderoga was only about 70 miles from the Ryuku Islands chain and about 200 miles (320 kilometres) east of Okinawa at the time, not 500 miles from land, and that two days later it docked in Yokosuka. One crewman is reported as stating that the ship was carrying 30 to 50 nuclear weapons while in Yokosuka.[95] A Defence Department spokesman said that the 500 miles referred to the distance from the Asian mainland, but

admitted that the ship was only about 80 miles (130 kilometres) from the Ryuku chain and 320 kilometres from Okinawa.[46]

This accident provides strong evidence for the violation of Japanese policy, in one instance at least. Further, the vagueness of the initial report, released only in 1981, suggests an attempt to conceal the details of the accident to ` prevent political repurcussions in Japan, and to forestall questions relating to the presence of nuclear weapons on United States ships in Vietnam.

Under pressure from the Opposition Socialist Party and other anti-nuclear groups, the Japanese Government insisted that Washington explain what had happened. Scientists tested the waters nearthe site for radioactivity. No radiation was found, the Government said. However, it is now reported that:

The Japanese Government has quietly closed the book on a United States hydrogen bomb lost off its coast 24 years ago. The Foreign Ministry said yesterday (29 December 1989) that the United States Defence Department had said further queries on the accident could endanger American military policy, and Japan did not intend to press for more explanations.[160]

An important question relating to this accident that does not appear to have been examined adequately, if at all, is why the jet that was lost was actually; carrying a nuclear bomb at the time it was on an elevator on the Ticonderoga. what need was there to have aircraft armed with nuclear weapons so positioned? Why weren't all the nuclear bombs in storage in the Ticonderoga at this stage of its cruise? No answers to these questions have been seen.

The authors of Neptune Papers 3 report one further accident involving nuclear weapons where, they claim, there is evidence of concealment of the details to prevent difficulties with the NCND policy. This accident involved a serious collision between the aircraft carrier CV 67 John F Kennedy and the cruiser CG 26 Belknap on 22 November 1975 about 70 miles east of Sicily. The Belknap visited Spain, Italy, and Greece, and carried out a patrol in the Black Sea prior to the accident. This report claims that the US Navy has failed to acknowledge that nuclear weapons present on both ships were threatened, for fear of controversy, if not restrictions, over port calls 'where non-nuclear sentiments or policies prevail.'[44]

One other well known accident that involved carrying NCND to a ludicrous extreme resulted from the collision on 17 January 1966 between a United States B 52 aircraft carrying four nuclear weapons and a refuelling aircraft over the village of Palomares in Spain.[47] These aircraft were also part of Operation Chrome Dome. That nuclear weapons were involved could not really be concealed. Debris from three bombs was recovered from ground in the vicinity of the village. Yet, as stated by Morton Halperin, former Assistant Secretary of Defence (see next section):

We went to the ludicrous, when we had lost a nuclear weapon - the fourth bomb - in Spain and the whole world knew we were looking for a nuclear weapon in Spain, of not being able to admit that in fact what we had lost in Spain was a nuclear weapon.

To have admitted this would have aroused opposition to the widespread transport of nuclear weapons in operations like Chrome Dome, with the associated risk of serious accidents, when such operations included passage over countries banning' or opposing overflights by nuclear armed aircraft.

NCND: MISUSED BUT WIDELY ACCEPTED. WHY?
THE REAL PURPOSE OF NCND.

The presentation of evidence for the misuse of NCND is now complete. On the basis of this evidence it is claimed that the assertions:

1. The NCND policy has been widely used to allow nuclear weapons to be taken covertly into ports, airspace and other areas from which they are in principle excluded. This practice is continuing.

2. Many of these actions are carried out in collusion with the governments of a number of countries whose declaratory policies prohibit the entry of nuclear weapons into their ports, airspace or other areas.

have been established beyond reasonable doubt.

In spite of the very negative picture that has been presented of this policy, many countries with otherwise non-nuclear policies, or professing a rejection of nuclear weapons and support for nuclear disarmament, appear to have accepted involvement with NCND for long periods. These include countries that allow nuclear armed ship visits and others that prohibit them. This suggests either, that these countries, or at least their governments, view the policy positively, or that there are other reasons why they support its operation. It is clearly of importance for this study to establish which of these interpretations is correct. It is also significant for the New Zealand situation. Opponents of New Zealand's legislation often argue that when so many countries allow ship visits under NCND there is no reason why New Zealand should not.

The survey of nuclear ship policies for 55 countries published in 1988[5] includes statements of, or information relating to, the policies or positions regarding nuclear weapons for many of those countries. An examination of this material shows that a surprisingly large number of countries, 26 of those surveyed, have policies or positions that express a rejection of nuclear weapons. They also have nuclear capable ship visits. This 26 includes 14 countries whose stated policies allow such visits, or do not forbid them, and 12 countries whose policies prohibit nuclear armed ship visits. The acceptance of nuclear capable ship visits by these countries can be explained by, or related to, a number of factors.

From the 14 countries that allow visits, the largest group is the eight Latin American countries, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Uruguay and Venezuela that are signatories of the Latin American Nuclear Weapon Free Zone Treaty, and might be expected to shun nuclear capable ships. But this Treaty does not explicitly exclude visits by nuclear capable or nuclear powered ships,[5] and these countries border strategic regions of the Atlantic and the Pacific. Three countries, Canada, Greece, and Portugal, accept such visits as an aspect of NATO membership. Australia similarly sees strategic benefits in port calls by its nuclear allies. South Korea and the Philippines have strong military links with the United States and have frequent ship visits. The Philippines policy allows storage of nuclear weapons or their components subject to the agreement of the Philippines Government, and states that transit, overflights, or visits by United States aircraft or ships shall ` not be considered storage or installation, and will be conducted in accordance with existing procedures which may be changed or modified as necessary by mutual agreement by the two governments.[48] South Korea gave no explicit policy regarding ship visits.

The Scandinavian countries Denmark, Norway, Sweden, and Finland, and their geographical neighbour Iceland, are in the second group of 12 countries. All profess to forbid nuclear armed ship visits, but from the point of view of the NATO Alliance occupy a crucial strategic location both with respect to the Baltic and to the North Atlantic.[49] They are also all directly exposed to Soviet and Warsaw Pact naval forces stationed in their region, and at least Denmark, Norway, and Iceland as NATO members must value the protection provided by the fleets of their NATO allies. So there are clear strategic reasons why the United States in particular would desire very strongly to gain the acceptance of nuclear capable and, in the case of Norway, nuclear powered ship visits by these countries, and why they in turn might welcome these visits under a policy, NCND, that enables them to avoid public disavowal of their own non-nuclear policies. There are suggestions that Iceland has recently rejected this undesirable position by stating its intention to enforce its prohibition on visits by nuclear armed ships. How rigorously this will be imposed is not yet completely clear.

Spain, another NATO member, and Egypt are also in this group. Located as they are at either end of the Mediterranean, they again are of considerable strategic importance, and access to their ports would be valued. India and Ireland are not aligned to Western military blocs but are well placed for naval purposes in the Indian Ocean and the Western Atlantic respectively, making access to their ports desirable. Japan is another of the group of 12, but her situation has been dealt with at length. Japan of course has very strong military links with the United States and is a vital element in United States Pacific naval strategy. The eleventh country is Nigeria, which while professing a ban on the entry of nuclear weapons on all carriers, has a pattern of nuclear capable ship visits similar to that of neighbouring African countries, although the number of visit annually is very small from the data available. The final country is China which in 1986 had visits by American and British nuclear capable ships. There are suggestions in the official responses" to questions about these visits of some secret guarantee having been given to China that these ships would not be carrying nuclear weapons.[50]

Strategic reasons making port access for Western navies desirable are seen to apply in almost all these 26 cases. The incentives or inducements that may be used to gain this access in individual cases are not known but there is ample scope for conjecture. It is clear, however, that the fact that all these countries allow port calls by nuclear capable ships does not necessarily reflect widespread support for NCND as is often claimed, and has been claimed by opponents of the New Zealand legislation. It is also clear that unhindered ship movements are of considerable importance to naval strategies requiring combat ready units that can be rapidly deployed, and are in some cases normally forward deployed.

NCND: THE REAL PURPOSE.

It is from these considerations that the real purpose of the NCND policy is seen, at least as it relates to ship visits. This is to make the unhindered' movement of combat ready ships possible at large distances from nuclear weapons' storage areas, and regardless of policies concerning the introduction of nuclear weapons into the ports of various countries. The governments of those countries may collude for various reasons in this undermining of their own policies, but continued port access could be made much more difficult if the public in those countries had to be informed every time a ship carrying nuclear weapons wished to visit. Even in allied countries that allow port calls there is often considerable public unease aroused by the actual presence of nuclear weapons, or the suggestion of their presence. The NCND policy is employed to help circumvent difficulties that strong public protest might cause, regarding ship visits in particular.

This again is not a new discovery. This use of NCND simply manifests the purpose for which the policy is supposed to have been conceived according to some informed sources. In 1974, before the Senate Foreign Relations Committee Nuclear Weapons and Foreign Policy Hearings, 93rd Congress 2nd Session, the former Assistant Secretary of Defence, Morton Halperin, when questioned about the secrecy concerning nuclear weapons on ships being necessary and being the basis for NCND stated:

Well I think it developed initially in a period in which nuclear weapons were looked upon with a kind of mysticism as something very different, as I think they should be looked on, and in which we were not going to talk about where these weapons are. It was a natural outgrowth of that and from the fear, as I say, particularly in the navy but also in other services, that if the word got out that there were nuclear weapons in Germany or on Okinawa or other places, you might have domestic opposition in those countries to the stationing of the weapons which would make it impossible to continue to store them there.

It is a subject which when I was in the Pentagon was not susceptible to review. It was one of those subjects about which it was well understood that the feelings of the military service was such that one opened the subject at one's peril and without any chance of success in changing it. I am not aware there has been any recent review of that question nor in my view is there likely to be unless there is very strong pressure from Congress to have this information made public and to have this policy changed.

In answer to a question concerning public opposition to the storage of nuclear weapons in Europe at that time Halperin continued:

I think it is sensitivity of countries in other parts of the world and the question of the calling of naval ships. I. think if one could isolate the European problem that there would be much less opposition on the part of the American military to confirming there were nuclear weapons in European countries which indeed everybody knows and one can easily see these installations as one flies over Western Europe. Certainly the Russians know exactly where they are, having seen them presumably from their satellites, but the fear of the military is if you confirm there are nuclear weapons in Germany, tomorrow the Brazilians will be asking if the ship that is calling at our port has nuclear weapons on it. Once you have breached the line of saying we never confirm or deny anywhere, you must confirm or deny everywhere. And you remember we went to the ludicrous, when we had lost a nuclear weapon in Spain and the whole world knew we were looking for a nuclear weapon in Spain, of not being able to admit that in fact what we had lost in Spain was a nuclear weapon. (The Palomares incident)

He later went on to say:

Just to take one example which will illustrate this, which I think is probably the less kept secret of all our nuclear deployment, the deployment of nuclear weapons on Okinawa. Everybody in Japan I spoke to, government officials, newspapermen, or scholars, told me there were nuclear weapons on Okinawa, and I also told them I could neither confirm nor deny that fact. So it was certainly not a secret from them, not a secret from the Russians whose satellites took pictures of storage sites, but it is the case if the United States said publicly on the record there were nuclear weapons on Okinawa, there would have been increasing domestic opposition in Japan and Okinawa to the stationing of those nuclear weapons. I think that we should not be storing nuclear weapons in countries where there will be domestic opposition if we admit we are storing, but the fact is we do store them. We do have ships with nuclear weapons calling on ports of such countries and as long as that is the case the military will resist confirming or denying the presence of nuclear weapons anywhere.

Regarding the prime purpose of NCND he said:

Certainly not to keep the Russians or Chinese guessing. Rather, the policy is aimed at the publics in allied countries, and governments prepared to let the United States store nuclear weapons on their soil, or to have ships with nuclear weapons call at their ports provided that the people do not find out.

Paul Warnke, a former Assistant Secretary of Defence, also expressed these views in 1974 before the same committee.

The presentation of material supporting the two initial assertions concerning the covert misuse of NCND, and establishing the real purpose of the policy, is complete. A detailed case has been made only against the US Navy, but the conclusions reached are taken to apply generally whenever NCND is invoked by the United States, for aircraft movements or in relation to land based forces as well as for naval activities.

The other major nuclear power, the Soviet Union, will not release the appropriate information necessary for an equivalent analysis. Some evidence that the Soviet Union does not apply NCND as rigorously as the United States has been given, but it is not possible to conclude that the Soviets never use the policy covertly until evidence is made available that would establish this.

The United Kingdom strongly supports the United States use of NCND, and almost certainly uses it for the same ends. This is assumed to apply to France as well, but again a lack of information makes it impossible to confirm this.

Quite different reasons for the development of the policy and its continued use are, of course, given publicly. These must be examined. First the suggestion in the above quotations from 1974 that NCND.could never be breached without serious risk to the general operation of the policy is tested against events before and since then that definitely appear to involve violations of the policy.

NCND: VIOLATIONS.

Some events and statements have been described or quoted already that involve violations of NCND, assuming the sources used are reliable. No reasons are known to doubt this. Other events have occurred that involved definite violations of the policy, or implied violations at least. These events and statements are grouped below in a way that, it is argued, supports the claim that the degree of sanctity of this supposedly inviolable policy depends strongly on the circumstances, and that the secrecy aspect of the policy is exploited as required rather that being an absolute and unvarying aspect of it. This is not claimed to be a complete inventory of all violations of NCND.

VIOLATIONS SEEN AS UNIMPORTANT FOR NCND AND POLITICALLY USEFUL.

This group brings together violations which, it is here claimed, would not cause any concern to the countries operating NCND that were or are involved, and would be seen by them to have political advantage.

1. THE INF TREATY.

This treaty involves the largest scale violation of NCND ever, if that policy is interpreted strictly, because the treaty requires the United States and the Soviet Union to describe in detail the locations of certain classes of nuclear weapons. And they have done this. It is difficult to imagine any objections to this violation, but if a policy is being subjected to strict scrutiny in order to understand its operation fully, even a violation of this sort must be examined. It does show that the policy can be set aside in suitable circumstances for the sake of progress in arms control. The START Treaty negotiations foresee an exchange of similarly detailed information.

2. SOVIET NAVAL VISIT TO THE UNITED STATES: JULY 1989.

The first goodwill visit by ships of the Soviet Navy to a United States port for 14 years took place in July 1989 when the cruiser Marshal Ustinov, the destroyer Otlichny and the oiler Genrikh Gasanov visited a United States fleet headquarters in Norfolk Virginia. Soviet Admiral Kasatonov confirmed that none of his ships was carrying nuclear weapons.[51] Visits like this are to be strongly encouraged, but a violation of NCND was involved. The US Navy, on the other hand, when asked for assurances that the Soviet ships would not bring nuclear weapons into the United States replied that consistent with NCND,' the US does not discuss nor inquire about weapons carried on foreign warships visiting US ports', and would not provide the assurances asked for.[161] A rather extreme application of NCND.

3. UNITED STATES, AND SOVIET SCIENTISTS TEST NUCLEAR WEAPONS DETECTORS.

Again in July 1989 the Soviet Union allowed United States and Soviet scientific teams on board the nuclear armed cruiser Slava in the Black Seaport of Yalta to test equipment designed to detect the presence of a nuclear warhead on a SS-N-12 sea launched cruise missile.[52] This experiment, discussed further on page 71, was intended to test how a ban on the presence of nuclear armed cruise missiles at sea could be verified. Another very desirable goal, but involving a violation of NCND all the same.

4. UNITED STATES MILITARY FLIGHTS THROUGH CHRISTCHURCH NEW ZEALAND.

More than 500 United States military aircraft a year pass through Christchurch Airport in New Zealand. These flights are allowed under a blanket clearance given by the New Zealand Government on the grounds that they service an Antarctic programme and the United States Operation Deep Freeze Base at the airport, and are not carrying nuclear weapons since the Antarctic is a nuclear weapons free zone. However, at least 182 of the 516 flights through Christchurch in a recent 12 month period were not directly or solely connected with the Antarctic programme.[53] This has led to suspicions that some of these aircraft which are capable of transporting nuclear weapons or components of these weapons might be doing so, in breach of New Zealand legislation.

There is definite evidence that this is not so which itself involves an interesting breach of NCND. The US Airforce has very stringent regulations

covering transport, handling, and ground facility requirements associated with the transport of nuclear weapons or nuclear weapons components. These are detailed in a document MAC Regulations 55-18 Vol.1 29 January 1981, Nuclear *Airlift Operations,*[54] and have been made public. The lack of necessary arrangements at Christchurch is quite obvious, and was commented on independently in 1986 by the then Prime Minister David Lange.[55]

The interesting point is that the very lack of these arrangements is in effect a breach of NCND since this lack clearly signals the absence of nuclear weapons ' on nuclear capable carriers, and this applies at any airport transited by such United States carriers at which the requisite ground arrangements are absent.

The United States Embassy in Wellington contributed to this breach of NCND when an Embassy spokesperson, B Strong, told the Sunday Star in New Zealand that the planes were unloaded by New Zealanders who would have discovered 'anything sinister' on them.[53] He said, 'You can attribute this to the United States' Embassy. For the conspiracy theorists who postulate there are weapons on them, they (the planes) are unloaded by Kiwis (New Zealanders). If there was anything sinister about them, it would have come out years ago.'

Documents viewed under the New Zealand Official Information Act suggest strongly that there was information available to the New Zealand Government for about 10 years, from 1960 to 1970, confirming that these flights did not carry nuclear weapons, at least during this period. To obtain landing clearance at that time, each flight had to declare what warlike stores were being carried. The answer was almost invariably 'none.' In a few cases some small weapons were declared. Unless the US Airforce was lying on all of the quite large number of occasions involved, these declarations constitute statements that no nuclear weapons were present on certain nuclear capable aircraft, a breach of NCND. After 1970, blanket clearances were given annually by the New Zealand Government for many flights, and this declaration was no longer required.

Much more recently, in a letter to the author dated 18 December 1989, Mr J Burton, Manager of the Agriculture Quarantine Services, Ministry of Agriculture and Fisheries in Christchurch in reply to some questions concerning inspection of overseas aircraft including United States military aircraft stated:

All overseas aircraft are entered immediately on arrival - and this is prior to cargo removal. My staff inspect all parts of US Military Aircraft without hindrance. there are no areas which are forbidden. --- All cargo (from all sources) is subject to document or physical inspection (or both). To assist us with any procedure or inspection US Military personnel accompany my staff. They do not in any way influence whay my staff inspect. They are there to facilitate by way of orders and command.

These inspections again constitute a breach of NCND in that they allow New Zealand citizens to confirm the absence of nuclear weapons on US Airforce planes.

5. UNITED STATES B-52 SOMBER FLIGHTS THROUGH DARWIN AUSTRALIA.

The United States and Australia on 11 March 1981 agreed that-B-52 bombers and associated KC-135 tankers could stage through the Australian Airforce base at Darwin for the purposes of sea surveillance in the Indian Ocean and for navigational training. The then Prime Minister, Malcolm Fraser, stated on the same day that the flights 'will be unarmed and carry no bombs. '[56] He went on to say that the possibility of any such flights carrying nuclear weapons was particularly important to clarify, since Australian policy is that 'aircraft carrying nuclear weapons will not be allowed to fly over or stage through Australia without its prior knowledge and agreement.'

While there has been concern expressed that the agreement signed on March 11 does not explicitly rule out the possibility of nuclear weapons being carried through Darwin,[56] it is generally accepted that this does not happen, and the United States does not appear interested in denying that these flights are definitely nuclear weapons free. It has been claimed that there are obvious differences between ships and aircraft in the management of NCND, and that this area of policy is replete with subtleties that history suggests few appreciate.

Aircraft are able to return to home base in a matter of hours to be armed should a crisis erupt, so can operate free of nuclear weapons more readily than ships.[57] Here a possibly naive approach is taken that NCND applies to all carriers anywhere, so the Darwin situation represents a violation of this policy, as does the situation in Christchurch.

6. IRELAND AND OVERFLIGHTS.

Another similar case of what could be a violation relates to overflights of Irish territory by United States military aircraft. There are a large number of these flights, between 700 and 1000 each month in the first quarter of 1987 for example,[58] almost all being American flights including aircraft capable of transporting nuclear weapons. It is the proclaimed policy of the Irish Government that foreign military aircraft may only transit Irish airspace if they are unarmed and carry no arms or missiles, ammunition, explosives or intelligence gathering equipment. Permission is given for each overflight after receipt of a declaration that the flight meets the above requirements. It has been stated that the policy also covers nuclear weapons, and they are not carried on such flights.[58] A similar ban on visits to Irish ports by ships carrying nuclear weapons is supposed to apply.[59]

If the United States and other countries do give the Irish Government repeated written assurances that effectively say their aircraft are not carrying nuclear weapons, this would constitute a violation of NCND, differing from the situations with ship visits to Denmark and Japan, for example, in that the Irish Government speaks of written assurances for each overflight. No country asks for and gets comparable written assurances for each ship visit.

However, there is considerable scepticism concerning the effectiveness of the Irish policy for overflights and for ship visits, and when it was suggested to the New Zealand Minister of Foreign Affairs that the Irish policy could be used, as a precedent for New Zealand to ask for written assurances that United States flights through Christchurch are free of nuclear weapons, he insisted that the purport of the material supplied by the Irish Government had been misunderstood.[60] In what way misunderstood was not explained and is difficult to understand. Some of the United States flights could well be taking nuclear' weapons to Britain or Europe, a very different situation from that in Christchurch which provides no sensible destination for possible nuclear cargoes. Further, Irish Parliamentary records give exactly the policy stated, and include a statement from their Minister of Foreign Affairs that, 'I am satisfied, on the basis of assurances given through their embassies by the countries concerned, that armed aircraft, nuclear or otherwise, do not enter Irish airspace.'[58]

7. THE 1989 MALTA SUMMIT.

This is not a clear cut case of a violation, but seems appropriate for inclusion here. Presidents Bush and Gorbachev held a summit meeting in Malta late in 1989, and ships from both superpower navies were in the port of Valetta during the summit. The ships, the USS CG 26 Belknap and the Soviet Slava, guided missile cruisers, are both nuclear capable. It was reported in the newspaper, The Guardian weekly, that the Maltese Government had announced that both countries had given assurances that their ships would conform with Malta's ban on nuclear weapons from its territory for the duration of their visits.[154] This would constitute a clear and very unusual violation of NCND, with another government being informed of it directly by both the United States and the Soviet Union, and announcing it.

The United States Ambassador to New Zealand, Ms D Newman, was asked to comment on this report. She replied that it was inaccurate, NCND was maintained, and no assurances of any kind were given relating to the Belknap being free of nuclear weapons in Valetta. This response was conveyed to the High Commisioner for Malta in Australia, Mr V Gauci, who stated that the Guardian report was correct, and that the position of the Maltese Government was respected. The United States Ambassador in Malta was then consulted. The reply again was that NCND was maintained for the visit, and no assurances were given. Mr Gauci was

informed of this and asked to respond. This time he said:

I think you will appreciate that, in these delicate matters, there are constitutional and other considerations in diplomatic exchanges between countries that each side has to satisfy. It is evident in this case that all sides involved were assured that their own concerns were satisfied and respected, in good faith and trust, as befits good relations between friendly countries.

The Maltese Ministry of Foreign Affairs has not replied to an enquiry concerning these visits, and the Soviet Embassy in New Zealand has not yet received a reply from Moscow regarding Soviet assurances to Malta. Interestingly, Mrs A Martindell, a former United States Ambassador to New Zealand, referring to this Malta summit in a public address in Auckland in February 1990 said that a reliable US naval source told her that the Belknap was cleared of its nuclear weapons for the Valetta visit. This supports the Maltese claim, and also supports the contention that US Navy ships routinely carry nuclear weapons.

This little history does not present a clear violation of NCND, but does say something about the power of the forces behind the maintenance of the policy if Mr Gauci's two replies are considered carefully.

These instances where, it is claimed, NCND was or still is being violated share the common feature of not obstructing desired movements of nuclear weapons, overt or covert, and thereby not obstructing the main purpose of NCND. The Irish overflight situation appears to be similar to that in Denmark and Japan for ship visits. There is also political and public relations benefit in these violations for the countries involved, apart again from Ireland.

ACCIDENT RELATED VIOLATIONS.

If violations of NCND are considered to involve deliberate intentional disclosures, some of the incidents in this next group should not strictly be classed as violations. It includes cases that involve explicit disclosure forced upon the parties by the circumstances, and cases that are not thus explicit or deliberate where concealment could be argued to make the affected cases non-violations if anything. However, all the cases discussed are now known to have involved the presence of nuclear-weapons in dangerous circumstances where concealment is very undesirable so, with the above proviso, they are classed as violations for this survey.

8. THE THULE AFFAIR.

This has been discussed already and was a situation where the nature of the accident made it virtually impossible to deny the presence of nuclear weapons.

9. THE PALOMARES ACCIDENT.

This has also been discussed and again was a situation where the nature of the accident made denial that it involved nuclear weapons virtually impossible, but the presence of nuclear weapons was not admitted to for a time at least.

10. THE TICONDEROGA ACCIDENT.

This has been discussed. The disturbing aspect of this accident is that the fact that a nuclear weapon was involved was not admitted to for a considerable period, and its location was obscured.

11. THE BELKNAP-KENNEDY COLLISION.

This accident has been discussed and again involves concealment of what could have been a very serious nuclear weapons accident. Just minutes after the collision, the Commander of Carrier Strike Forces for the United States Sixth Fleet, Admiral Eugene Carroll, sent a secret nuclear weapons accident message to the Pentagon and higher commands warning of a 'high probability that nuclear weapons on the Belknap were involved in the fire and explosions'.[(44)] This cable was recently declassified. The nuclear warheads on the Belknap actually escaped detonation. As recently as May 1989 the Pentagon still refused say whether such weapons had been on either ship.[61]

12. SOVIET SUBMARINE ACCIDENTS MID. 1989.

Reports of two Soviet submarine accidents that occurred off the Norwegian coast during 1989 included statements that the submarines were carrying nuclear weapons at the time. The first in April resulted in the submarine, a Mike class experimental vessel sinking with considerable loss of life. It was carrying nuclear torpedoes according to a report from Moscow[62] Other reports put the number of nuclear torpedoes at two.[63] A second incident in June involved a fire on an Echo-2-class submarine which was able to reach port. Reports of this accident also included statements that 'the nuclear missiles were well clear of the stricken reactor.'[64]

13. 1988 ACCIDENT ON THE USS BONEFISH SS 582.

After underwater explosions and a toxic fire that injured 22 sailors and left 3 missing, the US Navy submarine Bonefish surfaced and was tied to a rescue ship. A report of this incident in the newspaper The Dominion of 27 April 1988 quoted Chief Petty Officer T Borton as stating that the Bonefish carried only conventional weapons, a clear violation of NCND if the policy is interpreted strictly.

Recent surveys of nuclear weapons accidents include other instances where the presence of nuclear weapons is implied if not admitted, see for example references 44 and 65. It is seen from the cases quoted and referred to that concealment figures strongly wherever possible. This is what would be expected if the major use of NCND is covert, since admitting the presence of nuclear weapons in accident incidents and, in locations where their presence is forbidden or unwelcome could engender hostile reactions.

It is disturbing that concealment is used in this way, however, since the United States at least does have regulations covering accident situations in which NCND may be set aside. These are detailed in an unclassified Department of Defence Directive Number 5230.16, 7 February 1983, *Nuclear Accident* and *Incident Public Affairs Guidance* for example. This document states that the presence of nuclear weapons or radioactive nuclear weapon components at any specified location may be confirmed in the interest of public safety or to reduce widespread public alarm. These exceptions apply within the United States, and for accidents elsewhere if the host government agrees. The excessive and, it is here claimed, politically damaging use of secrecy will be referred to again.

OTHER VIOLATIONS.

14. SECRET DANISH-UNITED STATES AGREEMENT.

The Thule accident led to a secret agreement between Denmark and the United States covering nuclear weapons in Greenland to mollify the Danish Government. This is a clear and serious violation of NCND which was, however, denied by United States officials in strong terms.[43] But a letter in the Guardian Weekly airmail edition of May 22 1988 from an American serviceman, T. Konola, recently stationed at Thule air base confirmed that there are no nuclear weapons there now and 'the nuclear bomber forces pulled out of Thule some years ago.'

15. STATEMENTS CONFLICTING WITH NCND.

Statements by Paul Warnke and Rear Admiral Gene La Rogue that conflict with NCND have already been quoted. Similar statements have been made by other informed people. Captain James Bush, US Navy (retired), stated at a public meeting in New York in August 1986:

We carried nuclear weapons to many foreign harbours, sometimes illegally.[66]

George Shultz, former United States Secretary of State, told David Lange in June 1986:

that being within the (ANZUS) alliance meant that from time to time the reality was that, in the run of things, we would have to accept there were going to be vessels with nuclear weapons on board visiting New Zealand. [67]

16. SECRET UNITED STATES-JAPAN 1966 TELEGRAM.

Recently the Japanese Communist Party discovered in the Library of Congress , Washington a microfilmed copy of a State Department telegram sent to the United: States Embassy in Tokyo dated 24February 1966 that refers to 'confidential arrangements with the United States on the introduction of nuclear weapons under the 1960 Security Treaty.' Originally marked 'Secret', but declassified in 1977, the telegram was written in the context of a proposal by the Soviet Prime Minister at the time, Alexei Kosygin, that the nuclear weapon states would assure non-nuclear nations that they would not be attacked as long as they did not acquire nuclear weapons. The State Department warned that if Japan accepted the Kosygin proposal:

> it is possible that the ambiguity the Government of Japan has accepted on the presence of nuclear weapons on United States vessels in Japanese ports and on transiting United States aircraft might no longer be accepted. This would drastically reduce the utility of United States bases in Japan.[68]

There are strong suggestions here of arrangements that violate NCND, but both the United States and Japanese governments have denied this vigorously.

This case and the Thule violation item 14 suggest that NCND can be violated when this is politically necessary to maintain major arrangements important to the real purpose of NCND, unhindered movement of nuclear weapons through Danish and Japanese ports in these cases. Statements of the type included in item 15 of this section can only be embarrassing to the countries involved, and are generally countered by denials, or statements that NCND is always applied.

17. VISIT OF USS PROVIDENCE CLG 6 TO NEW ZEALAND 1968.

The US Navy guided missile light cruiser Providence visited Wellington, New Zealand, in December 1986. The ship was equipped to carry Terrier missiles, see Appendix 1. Both the Auckland Star and the Christchurch Press of 31 December 1968 were able to report that the Providence arrived fully armed with nuclear warheads, and that the sections of the ship housing the missiles would be heavily guarded and closed to visitors during the ships three day stay. The Providence was fresh from Vietnamese waters. The availability of this information was attributed to a garrulous officer from the ship in documents viewed under the New Zealand Official Information Act.

18. VISIT OF THE ARNOLD J ISBELL DD 869 TO AUCKLAND 1970.

Documents viewed under the New Zealand Official Information Act show that diplomatic clearance was requested from the New Zealand Government on 24 June 1970 for a three day visit to the port of Auckland in August that year by the US Navy destroyer Arnold J Isbell and two other ships. What is unusual about this particular request is that the request note from the United States Embassy describes the Isbell as a 'conventionally armed destroyer.' This violates NCND quite unambiguously because the Isbell, a modernised Gearing class destroyer, was at the time equipped to carry ASROC missiles, the same missiles whose possible presence on the Buchanan led in 1985 to the first imposition of New Zealand's nuclear free policy.

19. NATO FLEET VISIT TO NORWAY AUGUST-SEPTEMBER 1989.

It was reported in Norway's largest newspaper, Verdens Gang 1 September 1989, that Admiral Klaus-Dieter Laudien, Head of a NATO fleet visiting Norway at that time, confirmed that there were no nuclear weapons on board any of the ships in the fleet. IF correct, this would be a complete violation of NCND by a Western naval group, a most unusual event. Confirmation of the report is being sought.

NCND: THE CASE FOR.

It has now been claimed that NCND is a policy employed for reasons that are never stated, and are very undesirable because they involve deception and dishonourable behaviour. It has further been claimed that rigidity with which the policy is enforced is varied at times, and according to circumstance, to suit its unstated objectives: But definite reasons are given publicly for operating NCND. It is time these were examined.

NCND HAS IMPORTANT POLITICAL VALUE.

Some views regarding the origin of NCND have already been presented. These suggest that political expediency is a major reason for maintaining the policy. This conclusion is supported by a statement in a report by the United States Joint Committee on Atomic Energy in 1975 that reads:

The United States Government policy regarding nuclear weapons is that it will neither confirm nor deny the existence or location of United States nuclear weapons located anywhere. In part, this is at the request of the nations where the weapons are deployed, since in most nations the existence, of United States nuclear weapons within their borders' is a difficult internal political issue. Thus they generally have requested that the United States not declassify the fact' that United States nuclear weapons are located in their specific nation - even though the evidence that they are there is obvious and generally known by their population.[69]

NCND IS VITAL FOR DETERRENCE AND TO PROTECT PORT ACCESS, AND ENHANCES` SECURITY.

Reasons more commonly given to justify the continued operation of NCND relate to the needs for, and benefits of, secrecy regarding the location of nuclear weapons. Baroness Young, referred to earlier, expressed the British position for sea borne nuclear weapons:

For both Britain and the United States the principal nuclear role is, of course,
strategic deterrence, designed to make an attacker realise that any attack on us will involve horrendous damage to his own territory. But the risk to an attacker; will evidently be greater if we also possess shorter range nuclear systems. Some of these are based on our ships at sea. They are not, of course, on all our ships. Hence it is obviously crucial that we should make it as difficult as possible for a potential enemy to know which ships are involved.

This gives rise to our NCND policy. If we indicated that a particular ship was not carrying nuclear weapons at a particular time, we would help a potential enemy narrow down his choice of targets: hostile forces could build up a precise global picture of which ships should be their priority targets. This would much reduce their deterrent effect. And so make war more likely.[25]

Ambassador Paul Cleveland, also quoted earlier, stated the same position in an address in New Zealand in April 1989 when he said:

The NCND policy is in turn firmly supported as essential to nuclear deterrence by leaders in both (United States) political parties and by an absolute majority of Americans. It has been carefully constructed and applied worldwide to protect our Navy's port access and strategic manoeuvrability, and the policy has been successful. Despite occasional New Zealand news media reports to the contrary, no other ally has abridged our and the British and the French NCND policies; all our allies support it. On the other hand, major neutral nations like China, Sweden, India, and Yugoslavia, plus smaller ones like the South Pacific Island nations have adapted to it and regularly admit our ships on an NCND basis.[22]

He also said that no basic change seems likely in the United States NCND policy. In the 1986 address quoted from earlier, while discussing New Zealand's anti-nuclear legislation, he said:

For reasons of deterrence and operational security we, the British and the French never confirm or deny the presence of nuclear weapons on board ships: such a declaration would make a potential adversary's targeting task easier and could set a precedent that would complicate worldwide port access, that is anti-nuclear movements elsewhere could seize on New Zealand's example to argue for similar law and practice.[26]

An interesting statement supporting NCND appeared in the 1987 United States information Agency publication, *US Defence Posture in the Pacific*, and suggests an intriguing new origin for the policy. It states:

The United States maintains a longstanding policy of neither confirming nor denying the presence or absence of nuclear weapons aboard any US military station, ship, vehicle or aircraft (NCND). This policy, which is common among Western nuclear allies, is a practical one based on genuine national and allied security concerns. As such, it is the result of a complex mix of national and allied interests. One of the most basic of these interests is enhancing deterrence, the strategy of common defence which has been instrumental in preventing major war for over three decades.

Clearly, a basic purpose of the policy is to withhold from a potential enemy information that could be used against US forces in the event of a conflict. By forcing a potential enemy to treat all stations and units as if they were fully nuclear armed, the US can complicate its tactical and strategic problems.

By treating all units in the same way, the US enjoys added security for the actual weapons, especially against terrorist or saboteur threats.

The NCND policy originally took shape in the 1950s in order to prevent information related to atomic energy and nuclear weapons from being divulged to the Soviet Union. After the Soviets developed their own nuclear arsenal and the Western allies adopted the strategy of deterrence, the NCND policy became doubly important. As deterrence came to be understood by both sides, NCND became an integral part of the success of the strategy. Without accurate intelligence on the specific location of allied nuclear weapons arrayed against it, the Soviet Union could not adopt a strategy of preemptive attack without incurring overwhelming losses. Successful as NCND has been to date, the basic requirement for its success has not altered from its inception it requires consistency in its application in order to be credible.[1]

A 1ink between NCND and atomic energy information has not been found elsewhere.

Others have echoed the views that the justification for NCND is its importance for nuclear deterrence and the security, national and allied, of nuclear weapons, but only in similarly brief statements. No extensive discussion or study supporting the policy has as yet been located.

In an attempt to rectify this situation, official representatives in New Zealand of the governments of the United States, the Soviet Union, Britain, and France were asked in August 1989 if they would supply a detailed statement of the NCND policy operated by their country and its origin. They were also asked if they could supply as comprehensive statements as possible of the reasons why such policies are still in operation since there appear to be good reasons why countries might consider abandoning them, in peacetime at least, relating to safety, confidence building, and naval arms control. The replies were not informative.

The United States representative, Mr W J A Barnes, Counsellor for Public Affairs, referred to the US Information Agency statement just quoted. On being asked again for more extensive material Mr Barnes suggested that some research in American Centre libraries might be rewarding. This did not prove to be the case. A request was then directed to the Pentagon for this information. No reply has been received as yet.

The Soviet Ambassador, Mr Y Sokolov, replied that:

we (the Soviet Union) well understand its negative character relating to confidence building and naval arms control. However, our own position, especially on the implication of such policy, has not been clarified in detail so far. The Soviet Union has once officially declared its preparedness to abandon it provided that the USA does the same.

The Acting British High Commissioner, Mr S I Soutar, stated only that:

It is a global policy the purpose of which is to ensure that any potentially hostile power should have no help in identifying which of our ships should be selected as priority targets.

His response to a suggestion that this was a very brief reply and was it to be taken as a comprehensive reply to the questions asked, was to say that his reply 'was certainly brief. It was also comprehensive.'

The Press Secretary at the French Embassy replied that 'they have no documentation as such on the point asked, but it seems to be contained implicitly in France's conception of nuclear dissuasion.'

It is surprising and disappointing that these representatives in New Zealand do not hold material of a comprehensive nature relating to a policy that has been the cause of major difficulties between their countries and New Zealand. This would suggest either that the NCND policy is seen as virtually unassailable so that it does not need extensive defending, or that the difficulties the policy has created with New Zealand are not considered serious enough to warrant such effort, or that NCND is just too embarrassing to talk about - any debate reflects badly on the countries that operate the policy.

NCND: THE CASE AGAINST.

NCND DOES NOT CONTRIBUTE TO NUCLEAR DETERRENCE AND SECURITY.

The arguments that the NCND policy contributes to nuclear deterrence to a significant degree by obscuring the deployment pattern of nuclear weapons, and at the same time contributes to their security, can be challenged on several grounds.

The most obvious is that these arguments are based on a false premise, namely that NCND actually conceals to a meaningful extent anything that is not already known. Even in 1974 Morton Halperin told the United States Congress that the Soviet Union was very well informed concerning the location of American nuclear weapons in Europe and elsewhere, and surveillance techniques and intelligence have unquestionably improved since then. W E Colby, ex Director of the United States Central Intelligence Agency, in an interview for a series of articles on verification techniques published in 1986 said:

I'm not going to say we know every little thing that happens in the Soviet Union, but what can be concealed is going to be marginal. It's not going to affect our security.

Even for cruise missiles, normally regarded as very difficult to monitor, he said:

The present monitoring system is adequate to measure the degree of military threat we face. It's not necessarily adequate to define each last single cruise missile-that's another question. But a military force that threatens us, I guarantee we'll see.

He said this even applies to ground and sea launched cruise missiles.

They all need bases. They all need support structures. They all need construction facilities. They all need units that operate them, and all the rest of those things. You can put the bits and pieces together, and you can see if you have a threat.[70]

Doctor Frank Blackaby, former Director of the Stockholm International Peace Research Institute (SIPRI), rejects the concealment rationale for NCND. He claims that a skilled researcher:

can get a good idea whether or not a ship is nuclear armed from the reliable material now available and from certain facets of design and procedure on board. The American policy is military obscurantism.[71]

He is referring to the numerous publications readily available that describe the military systems of different countries and the weapons carried by ships and other carriers,[72] structures like missile launchers that indicate the types of weapons for which a launch platform is intended, and special personnel and procedures associated with the presence of nuclear weapons on carriers or at land locations. Peace and other groups regularly publish lists of probable armaments on submarines and ships, and on the deployment of new weapons like Tomahawk sea launched cruise missiles. W Arkin of the Institute of Policy Studies in Washington DC argues that the security of nuclear weapons does not rest on their location being kept secret, but on the physical measures taken to prevent their capture or use.[73]

R G Sutter, specialist in Asian Affairs, Foreign Affairs and National Defence Division, Congressional Research Service, The Library of Congress, in Report Number 85-92 F 1985, *Crisis in US-New Zealand Relations: Issues for Congress,* states that 'many United States specialists judge that ships that can carry nuclear weapons are readily identifiable from unclassified information', and includes an appendix listing these.[74]

A report by the External Intelligence Bureau, Prime Ministers Department, Wellington, New Zealand, prepared in 1984 entitled *Factors Affecting the Deployment of Nuclear Weapons in the South Pacific* and based on openly available information concludes that:

Experienced service personnel, taking these general considerations into account (those discussed in the report) and considering in particular such objective factors as the class of vessel and its probable role in operational situations, its route to and from New Zealand and the alert status of United States forces in the Asia-Pacific region, would be able to reach a reasoned judgement on the probability that a particular nuclear capable surface vessel or group of vessels was in fact carrying nuclear weapons.[75]

It is unlikely that the Soviet or other military would have to rely only on information in the public arena to identify nuclear armed ships or make informed judgements concerning the location of nuclear weapons. They are undoubtedly as well informed as Western countries in this regard, and the technology for intelligence gathering is improving.[76]

The argument for concealment through NCND does not stand up well under scrutiny. Even if it did, it would be a good assumption that enemy military units, particularly ships, intended to be nuclear armed and deployed some distance from nuclear weapons storage areas are so armed, for the reasons discussed earlier. A wealth of information concerning the deployment of nuclear weapons and the locations of nuclear weapons storage areas in the West and the Soviet Union is contained in the *book Nuclear Battlefields: Global Links in the Arms Race*, by W Arkin and R Fieldhouse.[13]

The argument that NCND adds to the security of nuclear weapons is also curious. The United States at least has been concerned with this question of security since the early 1970's,[69] and takes very necessary and creditable precautions to ensure the security of nuclear weapons under all conditions and in all locations from saboteurs, terrorists, and other dangers.[54,77] Their extent is indicated by the following quotation from a US Pacific Command document 5510.8D, *Nuclear Weapons Personnel Reliability Programme (PRP),* one of a number of United States military documents detailing security procedures:[77]

The destructive power of nuclear weapons and the importance of their contribution to our strategic deterrent and tactical capabilities warrant extraordinary measures to insure that such weapons are not subject' to loss, theft, sabotage, unauthorised use, unauthorised destruction, accidental damage or jettison. The national security and welfare require that only personnel who have demonstrated unswerving loyalty, integrity, trustworthiness and discretion of the highest order shall be employed in nuclear weapons PRP positions. The PRP is designed to assure the highest possible standards of individual reliability in personnel performing duties associated with nuclear weapons and nuclear components.

The United States has been refining its security measures for nearly twenty years now. Even though it is admitted that the locations of many nuclear weapons are widely known, particularly for land based weapons the most accessible to theft or damage, there has been no reported loss of a nuclear weapon by theft or sabotage, although accidents with the weapons do happen as discussed below. It is very difficult in these circumstances to accept that NCND adds significantly to the security of these weapons. Other nuclear powers presumably follow similar safety and security procedures.

NCND IS DESTABILISING, AND WEAKENS ALLIANCES.

Should the above criticism of NCND be incorrect or only partially correct, or if the degree of uncertainty over nuclear weapons deployment created by NCND is considered serious by an opponent, the situation created by the policy would be , even worse. If the location of nuclear weapons threatening a particular country cannot be fixed with reasonable certainty, the obvious strategy in a time of crisis is for that country to target all possible locations. Uncertainty engenders arms escalation and is destabilising, contrary to the goals of nuclear deterrence.[78]

Swedenhas expressed this concern in the United Nations. The Swedish Prime Minister I Carlsson speaking at the Special Session of the UN General Assembly Devoted to Disarmament on 1 June 1988 said:

The huge number of tactical nuclear arms that are routinely carried around the world by the naval vessels of the nuclear weapon States in itself constitutes a threat to international security. Additionally, it causes the increasing and legitimate concern of public opinion when nuclear capable ships call at ports. The secrecy traditionally surrounding the deployment of nuclear weapons at sea does not build confidence. On the contrary, it is confidence blocking. Therefore the nuclear weapon Powers should abandon their outdated policy of neither confirming nor denying the presence or absence of nuclear weapons on board any particular ship at any particular time. In Sweden we do not permit visiting warships to carry nuclear arms and we will work internationally for a' new policy where assurances against such visits would be given.[79]

The Swedish Parliament in 1987 adopted a resolution to the effect that:

The Swedish Government shall work internationally for the abandoning by the nuclear weapon powers of the principle of not clearly declaring whether nuclear weapons are present or not when visiting Swedish ports and, if that is not successful, consider other' measures for removing the uncertainty now frequently connected to visits by ships of nuclear weapon powers.[80]

The nuclear deterrent if successful should, presumably encourage feelings of confidence and security in those it is designed to protect. While this may be true, it should be obvious by now that NCND has just the opposite effect for many people in many countries. It creates in them feelings of anxiety in case ports, airfields, or land areas in their country are targeted for harbouring nuclear weapons, of resentment that such anxiety and uncertainty should be imposed on them, and of distrust of those who impose this from outside their country and, in some cases, from within. The policy is oppressive. It is seen not to contribute to deterrence constructively, to be confidence eroding and consequently destabilising.

These are major criticisms of NCND, and negate the supposed reasons given by official sources for its operation. The only purpose remaining is the covert use of the policy already discussed at length, and now claimed even more strongly to be the sole purpose for the policy and the reason for the tremendous emphasis put on the policy. What else could Ambassador Cleveland mean when he says that the policy has been carefully constructed and applied worldwide to protect our (the US) Navy's port access and strategic manoeuverability?[22] The United States Information Agency statement quoted earlier, that the basic requirement for the success of NCND is consistency in its application in order to be credible, has also been challenged through the analysis of violations of the policy.

Further, unless almost everything written so far is wrong, it must be clear that NCND through its covert use involves deception, hypocrisy, and dishonourable behaviour of a high degree. Governments claim to acknowledge each others policies, and then flout them in obvious ways. This applies to all the nuclear powers except, as far as is known, China, and to many of their allies. Nuclear armed ships enter ports they should not enter, aircraft transport nuclear cargoes through airspace they should avoid, and pretences are maintained about the location of land based nuclear weapons that are ridiculous ' and insulting to the citizens of the region. The nuclear powers involved are seen to be acting dishonourably towards their own allies, and the allied governments that collude with them are seen to be acting deceitfully even by their own citizens.

As has been claimed previously, this is a very undesirable use of a policy, unworthy of the governments involved. In the long term it is to their detriment because of the distrust, dislike, and resistance it generates, which can only weaken alliances. These effects of NCND are reflected in Ambassador Cleveland's statement that declaring the presence of nuclear weapons on one ship could set a precedent that would complicate worldwide port access, that is anti-nuclear movements elsewhere could seize on New Zealand's example to argue for similar law and practice.'[26] He is acknowledging the growing resistance in many countries to the NCND policy.[81]

NCND IMPEDES ARMS CONTROL AND CONFIDENCE BUILDING.

The INF Treaty represents a major stage in nuclear arms control. The Strategic Arms Control Talks, START, now in progress will hopefully produce equally important results. One problem of a serious nature that these talks have to address is how sea launched cruise missiles, SLCM's, are to be treated in the context of START.[78] It was agreed at the 1987 Washington Summit that the START negotiations should include finding a mutually acceptable solution to the question of limiting the deployment of long range nuclear armed SLCM's. Ground launched cruise missiles are eliminated under the terms of the INF Treaty.

The problem with sea launched missiles, the US Tomahawk TLAM land attack long range cruise missile for example, is that they are produced with either conventional or nuclear warheads. Furthermore, US SLCM's also come as a short range conventionally armed missile. All these variants are so nearly identical in appearance as to be generally considered indistinguishable, in flight or on ships for example. The Soviet Union SS-NX-21 and SS-NX-24 similarly are long range sea launched cruise missiles. Verification of any limit imposed in START on the number or deployment of the nuclear versions of these missiles, at least for the Tomahawk class, would clearly be very difficult, since the Treaty will demand that both parties adhere exactly to agreed limits.. This will require additional measures to those covered by ex CIA Director Colby's comments quoted earlier.. SLCM's are becoming increasingly important in naval thinking, certainly in the West, with a variety of programmes under way to produce more advanced, more accurate, and stealth versions of the missiles. Being relatively small and easily launched they allow a major expansion of the naval platforms on which long range missiles can be carried, making the task of verification still more difficult. Rear Admiral W C Bowes, Director, US Cruise Missile Project, stated in April 1988 to the House Appropriations Committee of the United States Congress that:

> Tomahawk distributes our offensive capability over a large number of launch platforms, enhancing both our conventional and nuclear posture in a cost effective manner. With the deployment of this significant weapon system in our battleships, cruisers, destroyers, and submarines the Navy is moving from 15 offensive strike platforms (aircraft carriers) to more than 195 strike platforms.[11]

This expansion is expected to be completed by the mid 1990's. Similar problems are arising with air launched cruise missiles.

The question of exact verification of SLCM numbers has been considered extensively,[79,82] and at least since 1985 by the US Department of Defence, as a heavily censored document, *Report to the Congress on Arms Control Limitations - on Deployed Nuclear-Armed SLCMs and their Verification,* March 1985, shows.[86] The most promising techniques involve intrusive inspections on ships and at factories. A number of tagging techniques are also being mooted. The problems with verification for SLCM's are seriously worsened by the NCND policy. As C Gellner from the International Studies Association, London, in his article *Verification of the START Treaty: SLCM's,* says*:*

> In the context of the negotiations of the START Treaty the main significance of the NCND policy is that it could prevent a meaningful agreement on controlling SLCM°s and, therefore, either block or cripple a START Treaty.[78]

This would be a major setback for nuclear arms control. There are, however, recent indications that the question of SLCMs may be removed from the body of START to a side agreement.[87]

In the more restricted context of naval arms control, NCND is also seen as seriously obstructing progress. The expansion of the naval nuclear arsenals of both superpowers has been a matter of increasing concern for some time. Writing in 1987, W Arkin, then Director of the National Security Programme at the Institute for Policy Studies, Washington, stated that some one third to one quarter of the world's nuclear arsenals are naval nuclear weapons. Over 15,000

nuclear warheads are earmarked for naval use, comprising about 8,800 submarine launched ballistic missile warheads targeted on adversary homelands, and about 6,600 non strategic tactical naval nuclear weapons intended for land attack or ocean combat.[9] This publication, *The Nuclear Arms* Race at Sea, presents an analysis of naval nuclear forces and strategies, the inherent dangers these represent, and the urgent need for confidence building and arms control measures in this area. Arkin is highly critical of NCND because it impedes 'these developments through its secrecy and concealment.

Concern over the problem of naval nuclear weapons has been growing in the United Nations. An extensive report, *The Naval Arms Race,* was published by the Department of Disarmament Affairs of the United Nations in 1986,[83] and the question of naval arms control is receiving increasing attention in disarmament discussions.[84] The report presents a number of possible disarmament and confidence building measures, but states:

> There would appear to be considerable interest on the part of many States in the limitation of the deployment of nuclear weapons. Given that the present policies of nuclear weapon States are neither to confirm nor deny the presence on board of nuclear weapons, one of the major difficulties to be overcome is the matter of identifying which ships, submarines, or naval aircraft are carrying nuclear weapons at a particular time.

An important component of the proposed measures is seen to be:

> the promotion of mutual trust and confidence by more openness between States concerning their naval strengths, activities and intentions.

Policies of concealment like NCND oppose or at the very least inhibit openness.

The Soviet Union has for some time been proposing a variety of confidence building and tension reducing initiatives relating to naval nuclear weapons and their reduction or elimination. President Gorbachev in a speech in Krasnoyarsk on 16 September 1988[85] made seven such proposals, at least three of which are effectively nullified by NCND. The first states that the Soviet Union will not increase its nuclear weapons in the Asia-Pacific region and calls on other nuclear powers not to make additional deployments. But with NCND operating, how would such an agreement be verified? How is it possible even to confirm the Soviet claim that they stopped further deployment in the region some time ago? Two other proposals aimed at freezing or lowering naval and air force levels in this region would require information normally denied under NCND to be made available. The Soviet Foreign Minister Eduard Shevardnadze in the General Debate of the Third Special Session of the United Nations General Assembly on Disarmament, June 1988, said that the Soviet Union is willing to abandon NCND if the other nuclear powers, particularly the United States, will do the same, and again suggested a number of confidence building measures.[88] There has been no positive response to the NCND offer as far as is known.

The Swedish Disarmament Ambassador B Theorin speaking to the United Nations: Disarmament Commission of the General Assembly on 3 May 1988 said:

> Sweden attaches high importance to naval armaments and disarmament. The arms race at sea, and in particular nuclear weapons at sea, is now a matter of increased public concern and knowledge. Every fourth nuclear weapon is earmarked for naval deployment. They threaten to bring the nuclear arms race to all parts of the world. It is urgent that limitations on sea borne nuclear missiles are agreed bilaterally between the major nuclear powers or in other contexts it is thus important that reductions in sea borne strategic nuclear weapons are now discussed between the United States and the Soviet Union within the framework of START. An ultimate goal should be to achieve a total ban on long range cruise missiles. The principle of freedom of navigation allows the nuclear powers to move these nuclear weapons over the oceans and to deploy them off almost any coastal point of their choice. Indeed they frequently do so as a matter of routine. The many tactical nuclear weapons on warships have by and large been overlooked in disarmament negotiations. Tactical nuclear weapons should be brought ashore. The possibility of negotiating measures of restraint on navigation with vessels carrying nuclear weapons is an important matter to explore.[89]

She went on to discuss the problems NCND presents for such programmes echoing the statement quoted earlier from the Swedish Prime minister and describing the NCND practice as incomprehensible to a growing body of public opinion. 'It should *be* abandoned by the nuclear powers' she said, and again emphasised the obstacles NCND poses for confidence building.

Dr A Mack, Head of the Peace Research Centre in Canberra Australia, is another critic of naval nuclear weapons and NCND. In a brief article entitled *The Case Against Tactical Nuclear Weapons,* published in October 1988, he argues the dangers these weapons pose because of the lack of coherent planning regarding their use in a nuclear engagement, and their presence in potentially dangerous situations, naval exercises and spying missions for example.[90] These points will be considered further. He discusses the problems NCND introduces and quotes F D Kennedy Jnr, a conservative United States defence analyst writing in the August issue of National Defence who says:

> The presence of nuclear weapons on board the majority of United States naval combatants is… on the verge of becoming a far greater political liability than a political asset.

Kennedy argues that the United States should focus arms control negotiations on eliminating naval tactical nuclear weapons. Such an agreement would render what he calls the 'increasingly untenable' policy of NCND unnecessary. A major source of tension between the United States and countries such as Denmark and the Philippines would disappear, and there would no longer be any reason to keep New Zealand frozen out of ANZUS.

NCND INCREASES THE DANGERS OF MILITARY EXERCISES AND SPYING AND SURVEILLANCE ACTIVITIES, AND INCREASES THE RISK OF NUCLEAR WAR.

Military exercises are often provocative and tension producing to some extent. These undesirable features of what many countries consider an essential element in maintaining a well prepared military force, conducting realistic exercises, are exacerbated by any uncertainty regarding the military units and weapons to be involved in a given exercise. An important step was taken towards reducing these problems for military exercises in Europe in the agreements covering exercises reached in 1986 at the Conference on Confidence and Security Building measures and Disarmament in Europe.[91] These apply mainly to land based forces, but do involve associated naval forces. They require the signatories to refrain from the threat or use of force and, in the case of large scale exercises, to provide prior notification and a considerable amount of technical detail concerning the military units involved, the purpose of the exercise, its timing, and location. Observers are to be allowed at certain exercises, and annual calendars of planned large scale exercises are to be exchanged. This contrasts starkly with the situation for naval exercises where, at least for the United States, secrecy still prevailed at the time of writing.

The dangers inherent in naval exercises where no notification, information exchange, or observer provisions exist have been analysed by several authors.[92] They also consider similar dangers arising from other activities like spying missions that involve provocative intrusions into another country's territory or adjoining areas, and from the deployment of naval units near sensitive coastal areas of opposing countries. These authors describe events, by no means uncommon, which are potentially very dangerous. Collisions between United States and Soviet vessels during naval exercises for example, once even inside Vladivostok harbour. On another occasion, after the United States submarine Gato had collided with a Soviet submarine, the weapons officer prepared to arm a SUBROC nuclear anti-submarine rocket.[90] It is clear that uncertainty regarding the nuclear armed status of vessels exercising near one's coast, or likely to be entering one's sea territory or ports covertly, or to be deployed in or near such areas, increases tension and is destabilising.

The difference from the European situation is shown by events prior to the United States holding late in 1989 what is widely considered to be the largest naval exercise ever held in the Asia-Pacific region, known as PACEX 89. News

of this planned exercise started to emerge unofficially late in 1988, but requests by the author under the Freedom of Information Act for information concerning it were denied on the grounds that such a release 'could jeopardise the successful conduct of planned exercises.' A formal Appeal lodged against this decision was only answered in September 1989 after the exercise had commenced, when a public affairs statement was provided.[93] This confirmed an earlier report by Pacific Command spokesman, Lieutenant Colonel T Boyd, that a` total of 80,000 United States military personnel from all four combat services, army, air force, navy, and marines, would take part in various stages of the exercise,[94] but details of the exercise were withheld. Forces from several allied countries participated with United States units in the exercise, but no details were released on the number of foreign military personnel involved. The exercise is understood to have included what must have appeared to be very provocative activities in or close to sensitive Soviet naval and land areas. Many of the American units involved were nuclear capable and very likely, but under NCND not certainly, nuclear armed.

This exercise was viewed by most commentators as extremely undesirable since it appeared aimed at practicing actions of a strategically offensive nature appropriate in an attack situation, rather than defensive manoeuvres. The element of secrecy that was involved only added to the tension and worsening of relations that the exercise might well have created between the United States and the Soviet Union at a time when improving relations need to be nurtured. United States officials claim, however, that the exercise was necessary to maintain skills and is a United States only exercise with other countries performing their own exercises under its umbrella.[95] Nevertheless, it has been reported in the press that the exercise was conducted under the leadership of Admiral H Hardisty, Commander in Chief of the United States Pacific Command, the first time a Commander in Chief of Pacific Command has led an exercise in peacetime.[96]

By contrast, the Soviet Union held a much smaller scale naval exercise off Vladivostok in July 1989 and, for the first time as far as is known, released quite detailed advance information concerning the exercise and the forces involved. Most Pacific countries including the United States, 15 countries, were invited to send observers to the exercise, but only Indonesia, Malaya, Vietnam, and India accepted. The invitation was extended to foreign journalists also.[97] The exercise appeared to conform with the proclaimed new Soviet naval policy of orienting their naval forces towards coastal defence rather than blue water offensive activities.

This subject of dangerous incidents associated with military exercises, deployments of naval vessels or units close to sensitive areas, covert activities and the like, and the added danger that NCND creates is a very large one. For the sake of brevity it will not be explored more fully here. One further and very serious aspect of the subject must, however, be discussed briefy. This is the possibility that the first use of nuclear weapons could take place at sea, and could trigger a nuclear war.

Several analysts have examined this possibility.[98] In a well known study published in the Winter Issue for 1985/86 of the journal *International Security,* Dr Desmond Ball, Head of the Strategic and Defence Studies Centre in the Australian National University, states that there are good reasons for believing that this sequence of events represents a very real threat.[98] The first reason he gives is that the sea is the only area where nuclear weapons platforms of the United States and the Soviet Union actually come into physical contact as a result of accidents in a variety of circumstances such as those relating to exercises and covert activities already discussed, and in games of chicken in which ships from these two navies attempt to gauge the resolve of each other. This was described in 1976 by American Admiral E Zumwalt as 'an extremely dangerous but exhilarating running game… that American and Soviet ships have been playing with each other for many years.' Harassment for military purposes is also not uncommon Ball says, and in some cases is difficult to distinguish from preparations for hostilities. These are all obviously dangerous circumstances that could lead to actual hostilities arising

from reaction to tension, tension that is worsened by uncertainty regarding the presence of nuclear weapons. The United States and the Soviet Union have entered into some agreements to reduce these risks, but disturbing incidents continue to occur.[44,98]

Ball then cites the attractiveness of ships like aircraft carriers as nuclear targets, the relative autonomy of United States submarine commanders which gives them effectively independent control over the decision to launch nuclear weapons, the dangers of escalation to nuclear weapons in naval conflicts because of the common deployment of dual conventional and nuclear capable weapons systems and platforms, the most recent being the Tomahawk cruise missiles, and the lack of any clear and coherent doctrine in the United States at least for the use of naval nuclear weapons, as sources of great concern. He discusses the offensive nature of present United States naval strategy which is to seek out and engage any enemy 'as far forward as possible', which he sees as containing the seeds of extremely rapid escalation. Yet, he says, by comparison with the army and air force, navy doctrine relating to tactical nuclear weapons in which he includes Tomahawk, 'is quite inchoate and incoherent.' The dangers inherent in each of these factors in relation to the possibility of nuclear war beginning at sea are seriously aggravated by NCND, and in the case of dual capable weapons and platforms result from it directly.

The contradictions in, and dangers of, the United States *Maritime Strategy* as it is called, and the impact of naval nuclear weapons on it, have been discussed by other authors.[99] While the US Navy claims that this strategy is designed to avoid future conflicts going nuclear, these authors like Ball strongly disagree. This leaves the Soviet Union faced with an opponent professing a strategy that is offensive in nature but incoherent regarding the most dangerous weapons it might involve, and with a policy, NCND, that increases the uncertainty surrounding the presence of those very weapons in tense situations. In an assessment of Soviet doctrine for war at sea Ball concludes that for a number of reasons:

the Soviet Navy must be expected to resort to the use of nuclear weapons at a fairly early stage in any major engagement at sea.

NCND can only add to the probability of that occurring.

NCND DISREGARDS NORMAL CONCERNS AND RIGHTS.

'The United States Navy has accumulated over 3,000 reactor years of operating experience since Nautilus first went to sea in 1955.' an official report states.[1] Despite this seemingly impressive record, there is a serious level of concern in many countries regarding the safety of nuclear powered ships. This is manifested by the Danish Government, for example, in such stringent regulations covering the information that must be supplied if a nuclear powered ship wishes to visit that the United States and other NATO countries will not comply with them, and no United States nuclear powered ship has visited Denmark since 1964.[5] Recently a Soviet nuclear powered container ship was denied port access for a week by four of that country's major Pacific ports in a popular protest over nuclear safety, and was only allowed to dock at Vladivostok after an official inspection found no danger from radiation.[100] The Australian Senate has recently completed a report on the radiological hazards of nuclear ship visits, *visits to Australia by Nuclear Powered or Armed Vessels: Contingency Planning for the Accidental Release of Ionizing Radiation,* and is recommending a temporary ban on nuclear powered ship visits to most ports until , their plans for dealing with an accident involving radiation are improved. Public protests at such visits continue in many countries.

It is easy to identify visiting nuclear powered ships. These are essentially all naval ships apart from Soviet icebreakers, and are identified as nuclear powered in publicly available sources.[9,72] The problem of safety for nuclear capable ships visits is completely different because of the workings of NCND. This allows potentially nuclear armed ships to tie up at normal berthing sites often close to densely populated areas in large city centres in many countries,

whereas nuclear powered ships are generally berthed in specially allocated areas. The US Navy will not break NCND even for United States ships in United States ports.

To expose people to a danger which many consider to be very serious, a major accident with a nuclear weapon in a city centre, is hard to justify. This is even more the case when those exposed are denied the information they need to assess the danger being imposed on them, by the NCND policy in these situations. Governments wishing to undertake actions that may expose their citizens to danger normally inform their citizens of these proposed actions-and! seek approval for them. But governments that grant permission for visits by conventionally powered nuclear capable ships without breaching NCND, as they must do at present, deny their citizens the right to know with certainty whether they are being exposed to danger from the presence of nuclear weapons in their city or not. Consequently, the normal official right to object to proposals involving danger to the public, the ship visits in this case, is denied since the presence of nuclear weapons even if strongly suspected during many visits cannot be proved with NCND operating.

In the case of countries that officially accept nuclear weapons in their ports, their citizens have the right at least to know when this source of danger is present and object if they so wish. The situation is still worse when governments claim their ports are always nuclear weapon free but say they do not challenge NCND, since those governments then cannot ever prove that they are being honest with their concerned citizens, who are left doubting the integrity of their own government. This all applies in peacetime particularly, when military justifications for concealment policies are difficult to sustain in the face of widespread public concern over an issue like nuclear weapons safety.

It can be argued justifiably that conventional weapons on ships in ports constitute a similar threat. The vital difference is that there is no NCND policy covering conventional weapons. In peacetime especially, it is unlikely that a ship's captain would refuse to provide any information at all regarding the conventional armaments of the ship, although details of numbers and types of weapons could be withheld. These can be assessed from publicly available information,[72] and people can then respond as they see fit.

To substantiate the claim that NCND overrides normal rights it is necessary to examine the safety and accident record of nuclear weapons, and naval nuclear weapons in particular. Officially, the record is claimed to be very good. A report published by the United States General Accounting Office in 1985 relating to naval nuclear weapon accident safeguards and emergency planning states that:

Navy ships have operated with nuclear weapons capability for nearly 30 years. Our review of defence records showed that the Navy has had three nuclear weapon accidents. None of these resulted in severe damage to the weapon or release of radioactive material.
Further, these accidents did not occur on ships in port or where civilian population or property was endangered.[101]

A seemingly impressive record, but there is a sustained high level of concern regarding the presence of nuclear weapons. Why is this?

The answer is that while the record for major accidents may have been good up to now, the record for less serious accidents is definitely not good. The above report states that the US Navy reported 229 such accidents, what it calls nuclear weapons related 'incidents' from January 1965 to December 1983, of which 65 involved nuclear weapons on ships in ports. A detailed account of naval nuclear weapons accidents is given in the report Naval Accidents 1945 - 1988 by W Arkin and J Handler referred to earlier.[44] This report includes a table of 383 naval nuclear weapons related 'incidents' between 1965 and 1977. Although details of these are not available, the table was compiled from a heavily censored US Navy document, the-total is significantly more than the US Navy reported from 1965 to 1983. Material is also presented that contradicts

the claims of a spotless record for naval nuclear reactor operation by the United States. The Soviet record in both these regards is criticised but excessive secrecy prevents large numbers of Soviet naval accidents from being; included in the report.

Another survey published in 1988, *A Handbook of Nuclear Weapons Accidents*, by S Gregory and A Edwards of the School of Peace Studies Bradford University,[65] gives details of over 200 accidents of varying seriousness, and the authors conclude that there may be many more still unreported. Some serious accidents were discussed earlier. There are many other reports and studies of disturbing accidents or incidents involving nuclear weapons or their carriers that will not be discussed for the sake of brevity. From the limited information available, the frequency of these does not appear to be decreasing. Very recently the US Navy sharply curtailed aircraft flights and warship movements for 48 hours after a series of accidents around the world. These included a fire on a nuclear powered submarine, a collision between 'a destroyer and a merchant ship, and United States ships and aircraft firing at or bombing one another.[102]

Faced with this picture of naval and nuclear weapons safety, it is not surprising that serious concern is felt in many countries, and that strong reactions are seen against policies of concealment. Another US General Accounting Office report on emergency planning for nuclear weapons accidents released in 1987 states that:

> No guarantee exists that nuclear weapon accidents involving radiological contamination will not occur in the future. Thus, to facilitate a prompt and coordinated response, emergency planning for this type of disaster should be coordinated among federal, state, and local agencies as it is for other types of natural and man-made disasters… Since the release of radioactive material from a nuclear weapon accident could be instantaneous and possibly spread to public areas, emergency planning must be in place before an accident occurrs.[103]

This highlights another serious worry for people in a number of countries, Japan, the United States, Canada, Australia, the Scandinavian countries and others. Is their port prepared to deal with a nuclear accident adequately? There is disturbing evidence that many authorities have not examined this question properly, which provides further justification for concern regarding nuclear weapons and the imposition of NCND.[104] A striking manifestation of this is seen in the resistance being expressed at present by United States citizens to proposals by their own Navy to homeport major nuclear capable warships in ports like New York, San Francisco and others. Protests reflect concern over the danger of a nuclear accident and the possibility that having the ships homeported in their port will increase the probability of its being targeted for attack in a nuclear war.[105] Longstanding protests at the homeporting of United States nuclear capable ships in Japan have increased with the arrival of Tomahawk capable ships[19] and, as stated earlier, the safety aspect of nuclear ship visits has been the subject of a government study in Australia. The NCND policy is at the heart of these problems which affect all concerned, public and officials alike. The oppressive nature of the policy is clearly seen at work here.

Finally, the legality of nuclear weapons and their deployment is being challenged more and more strongly.[106] Policies like NCND that supposedly aid deployment might equally well be argued to be illegal.

NCND OBSTRUCTS THE DEVELOPMENT AND OPERATION OF NUCLEAR WEAPON FREE - ZONES.

Nuclear weapon free zones (NWFZ) are seen by many in the international community as one means of halting the spread of nuclear arms and enhancing security.[107] The concept has been applied already in agreements to keep the sea bed, outer space, and the Antarctic continent free of nuclear weapons. Local nuclear weapon free zones now exist in many countries and are increasing in number. Advocates of the doctrine of nuclear deterrence do not in general

support the zone concept, but in this study it is the conflict between zone requirements and NCND that is of concern.

This conflict is reflected most strongly in relation to two major zones, the Latin American NWFZ and the South Pacific NFZ, both covering regions traversed by nuclear capable ships. Ideally all such zone treaties should prohibit the presence of nuclear weapons at all times including their transit through the zone, as well as prohibiting their production, testing, and deployment, and should include adequate verification mechanisms. Both the zones named fail in the first respect in that they do not explicitly ban the transit of, or visits by, nuclear armed ships or aircraft.

In the case of the Treaty for the Prohibition of Nuclear Weapons in Latin America, the granting of permission for visits is at the discretion of the state involved.[108] This has resulted in regular visits by nuclear capable ships from the United States, the Soviet Union, and Britain to a number of the zone signatory countries, in conflict with the ideal zone concept.[5] As a result the zone is widely regarded as ineffective in this respect, and as weakened by these visits which are seen as public evidence for the probable presence of nuclear weapons in the zone area. Certainty is being obscured once again by NCND. Evidence has also been found of a secret United States plan actually to base nuclear warheads in Puerto Rico, within the zone, in times of crisis, and in seven other countries. None of these eight countries were consulted or informed of the plan.[109] This makes a complete mockery of the Latin American Zone Treaty, a Treaty which the United States has signed. To counter strong reactions from some of the countries affected, NCND was again invoked.[109] Such disdain for a treaty by a major power is very disturbing, it is demeaning, and undermines the operation of the Treaty.

The 1985 South Pacific Nuclear Free Zone Treaty also leaves decisions regarding ship visits to individual countries. The difference is that to date the United States has refused to sign the Treaty, in spite of the lack of restrictions on visits or transit. Mr C Ford, Principal Deputy Assistant Secretary of Defence for International Security Affairs, said in July 1989:

> The Pentagon objects in particular to a protocol in the Treaty barring the permanent stockpiling, storage, installation, and deployment of nuclear arms in the Treaty area. We may have no intention of ever doing that, but we don't want to confirm it.

He called the Treaty's language on the stationing of nuclear weapons:

> so restrictive and so much of a precedent that it becomes a slippery slope that could lead to compromising our NCND policy.[110]

Stationing is defined in the Treaty to mean emplantation, emplacement, transportation on land or inland waters, stockpiling, storage, installation, and deployment. The question of how deployment should be interpreted has been discussed, and does pose problems for ships operating under NCND. Here NCND is seen obstructing the development of a NWFZ treaty. The Soviet Union has accepted all the protocols of the Treaty, and given an undertaking that none of its ships will carry nuclear arms within the Treaty zone.[111]

Proposals to establish a Nordic NWFZ possibly including Iceland, Greenland, and the Baltic Sea date back to the 1950's, and have become one of the most debated foreign policy initiatives in Nordic countries.[112] The Soviet Union has long supported the idea, but the United States 'has either maintained complete silence on the issue or, when pressed, shown clear opposition.'[112] During a state visit to Finland in October 1989 President Gorbachev announced the unilateral withdrawal of all Soviet ballistic nuclear submarines from the Baltic Seas by the end of 1990, and stated that their nuclear weapons would be destroyed, not replaced. He also said that the Soviet Union is prepared to come to an agreement with all the nuclear powers and the Baltic states on effective guarantees for the nuclear-free status of the Baltic Sea.[119] This withdrawal still leaves 32 Soviet attack submarines in the Baltic, many of which may carry nuclear armed cruise missiles,[119] and the submarines to be

removed are seen by some in the West as due to be withdrawn anyway because they are ageing. Nevertheless, the action and the offer made to discuss a nuclear-free Baltic are positive steps.

Similarly, there have been proposals since 1957 for a Balkan NWFZ.[113] The Soviet Union has supported this proposal, and suggested that the zone should include the Mediterranean area The United States again opposes the proposal on the grounds that security in Europe can only be achieved through an agreement covering the whole region. The Soviet Union was reported to be withdrawing most of its nuclear armed ships and submarines from the Mediterranean late in 1989 just prior to the Malta summit meeting between Presidents Bush and Gorbachev.[120] Whether this is a permanent withdrawal signalling an initiative to make the Mediterranean a nuclear-free zone remains to be seen.

It is clear that both these latter NWFZ proposals conflict with NCND, for the ocean regions covered at least. While this has not been an explicit objection to them so far, NCND does pose a problem for their progress.

On a different but no less important scale, Oakland, across the harbour from San Fransisco and the location of a naval supply centre housing components of nuclear weapons and non-nuclear spare parts for nuclear weapon systems in the US Pacific Fleet, has raised problems by proclaiming itself a nuclear free zone. In the first action of its kind, the US Justice Department has lodged a lawsuit seeking to overturn the proclamation on constitutional grounds.[114] The ordinance establishing the zone prohibits the production and storage of nuclear weapons, of weapons components, and of radioactive materials, and also the transport of such materials through the city, and conflicts with NCND, although this is only one reason why the zone would be challenged.

Another incident that revealed the clash between NCND and nuclear weapon free zones occurred on 8 July 1989 when the citizens of the deep water port of Astoria, Oregon, a NWFZ since November 1984, were confronted with the unannounced arrival of the Trident submarine USS Alabama, SSBN 731. For the duration of the 24 hour stay by the Alabama to resupply and change crew, the entire port area was patrolled by National Guard troops who sealed off access to the port piers as part of a 'harbour defence exercise.' When questioned regarding the presence of nuclear weapons on board the Alabama, NCND was again invoked. The legality of the visit and the secrecy involved are being investigated.[115]

Finally, the verification requirements for a NWFZ that did meet the ideals of prohibiting nuclear weapons at all times, could not permit the continued operation of any form of NCND policy in such a zone. There is thus a direct conflict between NCND policies and what is seen in many quarters as a very desirable mechanism for furthering regional and global security, the creation of NWFZs.

While not claimed to be exhaustive, the arguments presented are considered to establish a very strong case against the continued operation of the NCND policy, and for it to be abandoned. What finally must be considered are the benefits and costs that abandoning NCND would produce, and how those costs might be compensated for or eliminated.

BEYOND NCND: BENEFITS FROM ABANDONING THE POLICY.

Real benefits that abandoning NCND would produce are now obvious. These will be considered in the order in which objections to NCND were presented. Problems that abandoning this type of policy raises will be examined subsequently, and solutions proposed.

INCREASED POLITICAL SUPPORT.

Even if all the claims made in this study concerning the covert use of NCND are incorrect, strong suspicions that they are correct are souring relations between the nuclear powers and many of their allies in the West at least, and probably in the East also. The problem for the nuclear powers is that they are effectively hoist by their own policy. While they hold to NCND they cannot refute charges of its covert use without breaching the policy they want to defend. But if all these charges are indeed incorrect, abandoning NCND would allow this to be established for the past and the present.

Unfortunately it seems very likely that NCND has been and is being used covertly. Its strategic value having been discounted, it follows that considerable political goodwill and support would accrue to countries that abandoned NCND, and with no real strategic sacrifice. In what is looking increasingly like an era dominated by military glasnost or openness and in which the superpowers are talking in terms of cooperation on international problems, the retention of a policy of concealment and its covert use are becoming more and more anachronistic, and are generating increasingly strong opposition, as already discussed. By abandoning NCND, nuclear powers would be seen as beginning a new stage in openness in a period when this is a key factor' in gaining strong and widespread support for strategic and political policy and action. Existing hostilites would diminish, and alliances would be strengthened.

It has also been stressed several times that the covert use of a policy like NCND is most undesirable for countries that so act. It is extremely damaging to the image of a country as an honourable participant in international affairs, as a supposed defender of the rights of people and a protector of freedom, to be seen to be, or even to be strongly suspected of being, engaged in covert actions that flout the policies of their own allies. It is further damaging for those countries then to respond in an overbearing manner to reactions that might compromise NCND, as in the Danish and New Zealand cases. This is the stigma that NCND has placed on all countries that retain the policy. Their trustworthiness and honour even as allies is brought seriously into-question.- These countries must now ask themselves if this cost is worth the gains they must consider the policy still provides, as reflected in numerous statements that the United States will never give up NCND for example.

The political benefits to be gained from setting NCND aside have already been illustrated in the discussion of the first class of violations. The first three of these, the INF and START Treaties, a Soviet naval visit to the United States in July 1989, and joint tests of nuclear weapons detection equipment all reflect the spirit of openness referred to above which abandoning NCND would advance significantly. This spirit was clearly and impressively exhibited during the reciprocal visit by the US Navy ships Thomas S Gates, CG 51, and Kaufmann, FFG 59, to Sevastopol in August 1989, described as a goodwill mission that 'may well prove to be a historic milestone.'[116]

INCREASED PROGRESS WITH ARMS CONTROL AND CONFIDENCE BUILDING.

The NCND policy has been shown to be the possible source of a major difficulty in the START Treaty discussions, solving the problem of how to include SLCM's in the negotiations. This problem would largely eliminated if NCND was abandoned. Achievable verification procedures could then be considered. The success of the START negotiations is widely seen as of major importance for maintaining the momentum of nuclear arms reduction and control. To contribute

to this success alone is reason enough for giving up NCND.

However, as was also discussed, there is wide interest in naval arms control as a separate issue. Abandoning NCND would greatly increase the possibility of a beginning to progress in this neglected area of arms control. It is worth recalling in this context that about 71 percent of the Earth's surface is ocean and that over two-thirds of the world's population resides within about 530 kilometres, 200 miles of the coast.[106] As was shown, these oceans are now the repository of a large nuclear arsenal, a significant component of which could threaten coastal and near coastal populations. The need for naval arms control and disarmament is urgent. Abandoning NCND is a necessary major step in this process. This step would also offer the opportunity to reduce much of the danger now associated with military exercises by the introduction of confidence building measures such as are in place in Europe. It would greatly reduce the risk of a nuclear exchange at sea.

A recent study entitled *Why Nations Go To War* by J G Stoessinger[117] that examines seven major conflicts this century concludes that:

perhaps the most important single precipitating factor in the outbreak of war is misperception. Such distortion may manifest itself in four different ways: in a leader's image of himself; a leader's view of his adversary's character; a leader's view of his adversary's intentions towards himself; and, finally,' a leader's view of his adversary's capabilities and power.

He continues:

A leader's misperception of his adversary's power is perhaps the quintessential cause of war. It is vital to remember, however, that it is not the actual distribution of power that precipitates a war; it is the way in which a leader thinks the power is distributed.

Policies like NCND that increase uncertainty concerning the capabilities and deployment patterns of nuclear weapons can-only add to misperceptions regarding the capability and intentions of an opponent. The conclusion reached by Stoessinger also supports the claim made earlier that true deterrence is not enhanced by concealment, but is in fact weakened by policies like NCND since they can generate overreaction by an opponent to imagined threats. Other authors have shown the detrimental contribution-that-secrecy has made to the arms race.[118]

Abandoning NCND would remove these adverse attributes of the policy and would contribute to an improvement in knowledge of, and openness about, the nuclear strengths of the nuclear powers that would make dangerous activities much less necessary. It would help to establish an atmosphere in which the numerous confidence building measures that have been proposed for naval nuclear forces could be discussed constructively.

INCREASED CONFIDENCE REGARDING SAFETY AND NAVAL VISITS.

By forgeoing their NCND policies naval nuclear powers would have to declare the nuclear armed status of ships requesting visit to ports in a number of countries. This represents a major problem that abandoning the policy raises. It is discussed below. The benefits for citizens of those countries in terms of knowing what risks they were being asked to accept and being able to respond as they saw fit would be great. Countries like Australia, Canada, and some other NATO countries might well choose to continue allowing nuclear armed ship visits as a contribution to Western strategy. Their citizens could then at least press for adequate safety procedures to be in place for these visits on the basis of clear information concerning the nuclear weapons coming to their ports. Where visits or homeporting were agreed to this would be on an open, honest, and mutually satisfactory basis.

The citizens of countries like Denmark and Japan could verify the working of their own non-nuclear policies, and have greater confidence in the

trustworthiness and independence of their governments' actions. These countries would, presumably, prohibit nuclear armed ship visits effectively, as New Zealand does, rather than merely proclaiming that they do so.

INCREASED DEVELOPMENT OF, AND EFFECTIVENESS OF, NUCLEAR WEAPON FREE ZONES.

The establishment of properly functioning nuclear weapon free zones in the areas discussed would change the present strategic situation quite significantly, and in a way that many people see as very desirable. A new zone in the Nordic region including the Baltic Sea and seas north of Finland as has been suggested, a Balkan Zone including the Mediterranean, and a nuclear weapon free corridor in Europe as has also been frequently proposed, by Warsaw Pact countries particularly, would pose major challenges to present nuclear weapons deployment patterns. Most would welcome the removal of nuclear weapons from these areas of tension, and see the establishment of these zones as reflecting and enhancing the mood of detente and the warming of superpower relations that is occurring. An essential step in achieving these goals is for the nuclear; powers to give up NCND.

With NCND abandoned the real effectiveness of the Latin American NWFZ would be seen, and policies regarding visits by nuclear capable ships challenged if necessary to ensure that the zone was maintained nuclear weapon free. Objections by the United States to signing the South Pacific NFZ Treaty could be sufficiently weakened for that country to accept the Treaty protocols. Other more recent proposals for zones of peace or NWFZ's would be stimulated.

Problems with local zones like that in Oakland should be resolved with the disappearance of NCND, although in whose favour such problems were then resolved could vary.

There are undoubtedly other benefits that would follow from abandoning NCND. As with other sections of this study, this is not claimed to be an exhaustive or completely comprehensive analysis.

BEYOND NCND: COSTS OF ABANDONING THE POLICY.

The claimed strategic and security values of NCND have been examined and rejected, but continued claims for the reality and importance of these values will undoubtedly be made. The political value of NCND has also been discounted. Other problems from abandoning NCND only arise if it has been common practice to use the policy covertly, as has been claimed. Problems then relate to the loss of freedom to transport nuclear weapons into or through areas from which they are prohibited, the airspace, seas, and ports of certain countries like Denmark and Japan.

A series of measures is next proposed that would overcome, or at least alleviate, residual strategic concerns that a 'no NCND' situation might engender, and would compensate in some measure for the associated loss of port and other access for nuclear weapons carriers.

A PATH TO A WORLD WITHOUT NCND: IN PEACETIME AT LEAST.

The proposals now presented assume that, following the INF Treaty and considering the START negotiations and the extensive information available from many sources concerning land based weapons, abandoning NCND would create problems relating almost entirely to sea and air borne nuclear weapons. These proposals do not in any way reduce the deterrent value of ballistic missile submarines or affect their deployment unless they make foreign port calls which is not common.

To achieve the elimination of NCND it is proposed that:

1. ALL NUCLEAR POWERS AGREE TO BE MUCH. MORE OPEN, CONCERNING NAVAL AND AIR FORCES AND ASSOCIATED WEAPONS IN PARTICULAR.

The first step towards the elimination of NCND is considered to be achieving a much higher level of trust and confidence between the nuclear powers regarding each others intentions. The urgent need for this is, unfortunately, well illustrated by the naval situation in the Pacific.[9]

The Soviet Union claims repeatedly that it is restructuring all its armed forces, including its Navy, to satisfy what it sees as the needs for defensive or reasonable sufficiency. Furthermore, the Soviet Union claims that the chief aim of the Soviet Pacific Fleet is:

> to protect the Soviet Far East from aggression from the sea. The Soviet Pacific Fleet is maintained at the level of reasonable sufficiency, which is the fundamental principle of the Soviet military doctrine. It is not designed for attack on any foreign territory. It has relatively small amphibious and marine forces which are necessary for the defence of the long Soviet coastline. Modernising its naval forces, and escalating their activity, the Pentagon says that this is necessary to counter a growing Soviet threat. However, the growing defence capabilities of the Soviet Pacific Fleet are designed to counter the growing offensive capabilities of the United States Pacific Fleet. To justify the United States naval buildup the Pentagon says that the Soviet naval forces in the Pacific outnumber the American forces in that region. These allegations, however, are based on calculations which are neither objective nor balanced.[121]

Western reports of the size, strength, and purpose of the Soviet Pacific Fleet show astonishing discrepancies, with numbers of ships ranging from 407 to 836 being quoted in official United States publications in 1987 for example.[122] Mr A Kokoshin, a Soviet military analyst, told the United States Congress House Armed Services Committee in March 1989 that the Soviet Union had trimmed its Pacific Fleet by 40 ships since 1984 as a small step towards a more defensive posture.[123] Yet widely differing analyses of Soviet naval strategy in the Pacific, often suggesting very aggressive intentions, appear in the West.

For example, writing in the United States Naval Institute Proceedings, Naval Review for 1989, Captain W H Manthorpe, Jr., US Navy (Retired), quotes recent

data released by the Soviets on their naval strength but considers it incomplete and inconsistent, and quotes a number of Soviet statements that indicate a programme aimed at giving their fleet 'a powerful boost in combat readiness' even with fewer 'defensive' forces.[124] In an accompanying article Rear Admiral T A Brooks, Director of Naval Intelligence, US Navy, writing about Soviet Navy perspectives and perestroika in general states:

If perestroika proves successful, we will face a Soviet Union in the next century that is an even more formidable competitor with the West-militarily, economically, technologically and politically.... The point here is that we must be careful not to be lulled into complacency by a Soviet politician of some cunning who spends as much time posturing for Western audiences as he does for his own at home. The bear has not become a pussycat-he remains a bear. Kipling recognised this many years ago-

> "But...this is the time to fear,
> When he stands up like a tired man,
> tottering near and near;
> When he stands up as pleading, in
> wavering, man-brute guise,
> When he veils the hate and cunning of
> his little swinish eyes;
> When he shows as seeking quarter,
> with paws like hands in prayer,
> That is the time of peril-The time of
> the Truce of the Bear!'[125]

This quotation is given in full because it is so disturbing to see used by a person in Rear Admiral Brook's position. Statements to the effect that the Soviet policy of 'reasonable sufficiency' [126] for naval and other forces is seen only as a policy of intent at present in the West not backed by action in Soviet force reductions or redeployments, and that the West must as a consequence remain prepared and vigilant, are also common.

A similar conflict of views concerning the United States Maritime Strategy, claimed to be a strategy designed to deter war using conventional weapons but seen by critics as an offensive strategy that would almost certainly lead to nuclear escalation, has been discussed. Worrying in this regard are reports that the guided missile cruiser USS Vincennes that shot down a civilian airliner in the Persian Gulf in July 1988 had gained a reputation for being overly aggressive, and was nicknamed the "Robo Cruiser" by other United States naval personnel in the area.[127] A dangerous condition for ships to operate in under a strategy like the Maritime Strategy.

In complete contrast, the United States and Soviet navies have recently exchanged goodwill visits, and then Secretary of Defence Mr F Carlucci spent two days visiting the Crimean headquarters of the Soviet Black Sea fleet.[51] Admiral W Crowe, Chairman of the United States Joint Chiefs of Staff, made the first such visit ever to the Soviet Union for military dialogue in June 1989, and in August the same year entertained Marshal S F Akhromeyev, President Gorbachev's closest advisor on security policy, in Washington.[128] The Soviet Defence Minister General Yazov made the first visit ever by a Soviet Defence Minister to the United States in October 1989 for talks with Mr Cheney, United States Secretary of Defence and his staff, a meeting with President Bush, and visits to United States military bases.[129]

Norway has called for Soviet glasnost to be to be extended to early notification of nuclear accidents at sea after a rash of accidents in the ageing Soviet submarine fleet.[130] Their main concern is with radiation leaks, but full information concerning the danger from this source would mean revealing the nuclear armed state of the vessel involved as was done in the recent submarine accidents discussed earlier. A permanent agreement to reveal this information definitely conflicts with NCND. Nevertheless, President Gorbachev in a speech in Helsinki on 26 October said that the Soviet Union is prepared to start consultations or negotiations towards concluding an agreement envisaging mutual notification of accidents on naval ships, including submarines, and a Soviet Navy headquarters statement reported in Pravda pledged

immediate notification in case of nuclear accidents involving ships.[131] The Soviet Ambassador to New Zealand, Mr Y M Sokolov, in a very frank address in July 1989 concerning the state of the Soviet Union said that the solution to the arms race:

hinges on mutual confidence. And confidence is out of the question in the absence of openness, effective control, a knowledge of the other sides motives and decision making procedures. Both are prerequisites for real action in the sphere of disarmament.[132]

These views are echoed by the authors of a very recent study of the naval arms race, *Superpowers at Sea an Assessment of the Naval Arms Race*,[98] who say with regard to the superpowers at sea:

In the West there is a large volume of partial, misleading or exaggerated information routinely publicized by otherwise well-informed bodies and governments. There are a number of myths and misperceptions that permeate public debate on naval issues. These misperceptions need to be corrected if an informed public debate is to lead to rational choices and policies that improve mutual security and reduce the risk of superpower military confrontation.

Discussing Soviet naval strength they say:

accurate assesments of Soviet naval nuclear weapons are exceedingly difficult for one reason; the USSR makes absolutely no information available about such forces the USSR should realise that its excessive secrecy is counterproductive. It makes Western observers more suspicious and fearful of the Soviet Navy than is warranted. It also makes attempts at cooperation regarding security and arms control vastly more difficult than they are inherently.

These statements echo the conclusions of J G Stoessinger quoted earlier.

On a more positive note President Bush is saying that the cold war is over.[133] The United States is to give the Kremlin economic advice.[134] Proposals for far reaching military openness throughout Europe have been tabled by the West at the negotiations on confidence and security building measures, CSCE, in Vienna.[135] Discussing the Nicaragua situation, President Bush has spoken of the need for a 'kind and gentle approach to this hemisphere.'[136]

This catalogue of events and judgements reflecting the present conflicting, confused, and in important senses unsatisfactory state of East-West relations could easily be extended, but enough material has been presented to make it clear that any easing of the tensions inherent in this situation must be welcomed and strongly supported. Abandoning NCND would constitute one important action in this direction. It would represent the beginning of a 'kind and gentle approach' to confidence building, arms control, and disarmament, in the naval area in particular. A signifcantly improved level of openness and trust between the main actors involved would greatly increase the hopes of its early abandonment.

As a first step towards achieving greater openness, the Soviet Union is urged to make more details available of its military forces, particularly naval and air forces. These details should be at least sufficient to enable the Soviet Union to establish publicly that its forces meet the requirements of reasonable sufficiency and defensive defence only.

The Soviet Union is singled out in this way for several reasons. It has been the most active of the nuclear powers in proposing confidence building measures relating to naval forces and nuclear weapons in the Pacific.[85] It is the only nuclear power at present actively calling for naval arms control.[137] The Soviet Union is now repeatedly claiming that its forces are defensively structured or are being so restructured, and important related unilateral actions involving force reductions have already been taken. Further, it is now releasing more details of its forces.

The importance of these steps in furthering disarmament and confidence building are widely appreciated. The Soviet Union is here called on to show once again its current willingness to further a process of disarmament by being the first to establish unambiguously the defensive nature of its forces and open its own military analyses to examination, thereby removing the suspicion and confusion in force and policy assessments illustrated above.

2. ALL NUCLEAR POWERS RENOUNCE ALL FORMS OF NCND POLICY FORTHWITH.

It has been argued that NCND yields no significant strategic or other gains but only generates serious problems, and the policy by its nature is out of tune with the developing climate of detente. Further, renouncing NCND does not in itself demand the removal of nuclear weapons from existing platforms.

To advance the complete elimination of NCND, and in view of its offer to declare the nuclear armed status of its naval vessels for all foreign port calls if the United States did the same, the Soviet Union is now urged to abandon NCND unilaterally.

This unilateral action involves no risks for the Soviet Union not involved in the existing offer to abandon NCND for port calls on a reciprocal basis, and would place the onus on the other nuclear powers to follow suit. It simply represents an extension of existing actions and offers to declare the nuclear armed status of Soviet naval ships.[3] Unilateral actions of this sort signal a sincere intent to reduce tensions, and invite reciprocity.

3. ALL NUCLEAR POWERS AGREE TO DECLARE ON REQUEST THE STATUS OF SHIPS OR AIRCRAFT REGARDING- NUCLEAR WEAPONS OR NUCLEAR- WEAPONS COMPONENTS BEING CARRIED WHEN TRANSITING THE AIRSPACE OR TERRITORIAL SEA OR INTERNAL WATERS OF ANOTHER COUNTRY, OR VISITING ITS PORTS OR AIRPORTS.

This would circumvent the possibility that a country might simply refuse information concerning the nuclear armed status of its carriers, and places the onus for verifying that NCND has been abandoned on countries involved in ship or aircraft visits, or overflights. This would apply particularly to those countries now professing nuclear weapons free policies like Denmark and Japan, and on their peoples to see that their governments do request this information. The burden of guaranteeing a 'no NCND' status should not fall only on the nuclear powers.

The United States is retiring a number of its sea borne tactical nuclear weapons, ASROC, SUBROC and Terrier, about 1100 missiles in all, and this should be completed by about 1991.[138] Commenting on this development vice Admiral H C Mustin, Deputy Chief of Naval Operations for Plans, Policy, and Operations in the US Navy until 1988, said the move represented an evolution in Navy thinking about nuclear weapons for war at sea.

> There is a recognition that if there is a war at sea, we have got more to lose than the Russians. The concept of a nuclear war at sea is a concept whose time has passed. It is in the interests of the country to persuade the Soviets that the time has passed.[138]

Further, Paul Nitze has suggested that both the United States and the Soviet Union should eliminate all nuclear armed sea launched cruise missiles, nuclear armed depth charges, and torpedoes with nuclear warheads.[139] A similar proposal for sea launched cruise missiles was made by Brent Scowcroft, a well known American Administration figure.[140] Supporters of these proposals see them as removing a threat to the United States, easing arms control negotiations, and enhancing United States naval superiority in conventional weapons. Colonel General N Chervov from the Soviet Union said recently that 'the Soviet Union would be willing to give up nuclear sea launched cruise missiles contingent upon United States actions', a departure from earlier positions based on the Soviet preference for removing all sea borne cruise missiles. The revised position appears to be a concession to the strong desire of the United States to maintain conventionally armed cruise missiles.[141]

It would appear to be a very propitious time for these proposals to be accepted, and :for -NCND restrictions on what-non-nuclear powers are permitted to know about visiting ships and aircraft to be lifted.

4. ALL NUCLEAR POWERS AGREE TO ALLOW INSPECTIONS TO VERIFY SUCH DECLARATIONS IF THESE ARE CHALLENGED.

Verification is a key aspect of successful agreements involving nuclear weapons, and the possibility of verification would be an important component in this agreement to abandon NCND. Verification by inspection is no longer a hypothetical concept following the CSCE agreements in Europe and the INF Treaty, and will feature fundamentally in the START and conventional weapons negotiations now in progress. It should not be difficult to set up similar inspection mechanisms for ship or aircraft visits if these are required by certain countries. Ship inspections have been proposed by the Soviet Union to verify agreed limits on sea launched cruise missiles.[142]

5. NUCLEAR POWERS THAT SO WISH SHOULD ESTABLISH MEANS FOR THE RAPID' TRANSFER OF NUCLEAR WEAPONS OR WARHEADS TO SHIPS AND OTHER CARRIERS.

Even with no NCND policy, the United States would still presumably be able to send its ships to ports in many countries like Australia, Canada, Britain, West Germany, Belgium, Greece, Italy, Turkey, and South Korea without any challenge concerning the presence of nuclear weapons. The ships could still be nuclear armed for missions involving such visits.

A problem that abandoning NCND could be claimed to raise is the difficulty of rapid access in a crisis to their nuclear weapons for ships that have offloaded these weapons for port calls at non-nuclear ports, in Japan in the Pacific or Denmark in Europe for example. Aircraft can arm in a short time by comparison. Extending existing nuclear weapons storage facilities and developing new facilities could compensate to some extent for this problem with sea borne carriers. Most naval nuclear weapons, excluding submarine launched ballistic missiles, are relatively small and easily transported: The nuclear powers could continue to equip their ships with all ancillary equipment, launchers and the like, but not carry the nuclear weapons, or the warheads where these are separable, for foreign port calls including non-nuclear ports, or at all in peacetime. If nuclear armed sea launched cruise missiles are to be retained, a warhead technology allowing a nuclear warhead to be installed at sea should be developed so that in a crisis a platform could gain its design complement by air transport of the warheads from a convenient storage area.

The US Navy has procedures for the transfer of nuclear weapons to ships at sea, from other ships or by air as discussed earlier.[38] United States plans to build special vaults for nuclear weapons storage at 26 bases in Europe and South Korea, revealed in 1986,[143] illustrates that nuclear weapons access can be provided from air bases and similar installations. The nuclear weapons to be stored include warheads for ground launched cruise missiles. The 20 US Airforce bases listed are at Ramstein, Buchel, Menningen, Norvenich, and Hahn,' West Germany; Keline Brogel, Belgium; Araxos,'Greece; Volkel, the Netherlands; Aviano, Ghedi, and Rimini, Italy; RAF Bentwaters, RAF Upper Heyford, and RAF Lakenheath, Britain; Incirlik, Balkesir, Murted, Eskishir and Erhac, Turkey; and Kunsan, South Korea. The cruise missile bases are at Florennnes, Belgium; Woensdrecht, the Netherlands; Wuescheim, West Germany; RAF Greenham Common and RAF Molesworth, Britain; and Comiso, Italy. They are named merely to demonstrate that the United States has access if required to storage facilities in a number of strategically placed countries.

This list of proposed storage sites indicates that it would not be difficult for the United States to make all future visits to the non-nuclear countries named earlier with ships or aircraft free of nuclear weapons, and for most of these countries, and certainly for the more important ones, to have nuclear weapons available from storage areas in nearby countries. Greece, Turkey, and Italy could serve for visits to Egypt, Malta, and Spain. European countries and Britain could provide storage for visits to the Scandinavian countries and Ireland, and South Korea for visits to Japan.

For ships cruising in the Indian or Pacific oceans it would be necessary to have an accompanying nuclear weapons transport ship present if the major ships were to be nuclear armed and visits to non-nuclear ports in Sri Lanka, India, Vanuatu, or New Zealand, for example, were planned. The offending weapons could then be off-loaded before port calls were made, an annoying but feasible procedure. If the nuclear navies wish to continue cruising at sea nuclear armed they should allocate their nuclear weapons transports to these naval groups to provide the possibility of off-loading if required.

The Soviet Union claims its navy is being restructured for a stronger coastal defence role, with less emphasis on blue water activity. This should make the whole problem of access to nuclear weapons easier for them since most of their ships will then be spending most of their time close to their homeland. Soviet ships already declare their nuclear armed status for some foreign port calls it appears. If a blanket extension of this policy produced access problems for Soviet naval ships when nuclear armed, a storage solution could again be sought or off-loading arrangements made.

6. ALL NUCLEAR POWERS AGREE TO INSPECTIONS, PREARRANGED OR SHORT NOTICE, OF AGREED PRODUCTION AND STORAGE AREAS FOR AIR AND SEA BORNE NUCLEAR WEAPONS, AND OF CARRIERS OF THESE WEAPONS.

Just as the potential for verification would be necessary for port calls, it would be even more necessary for confirming production rates and storage and deployment numbers for nuclear weapons in a 'beyond NCND' era of openness and increasing mutual trust. Inspections of this kind for naval and airborne nuclear weapons would only extend agreements accepted in the INF Treaty. Inspection agreements will undoubtedly form an important aspect of the START' Treaty also, and be more akin to those being proposed here.

For START President Bush has proposed several verification measures including the reciprocal establishment of perimeter and portal (inspection of material leaving a missile assembly or manufacturing plant through an established 'portal', ie. the only means for controlled items to exit the site) monitoring of certain facilities in the United States and the Soviet Union to improve confidence in declared missile inventories.[144] Prompt exchange of selected data on nuclear forces, and reciprocal demonstration of unique identifiers on missiles to facilitate developments in this tagging problem, are also proposed. These are all measures applicable to naval and airborne weapons. Inspection of loading areas for these weapons could also be considered, but could involve intrusive access to air and naval bases that might not be granted readily.

V P Karpov, a Soviet Deputy Foreign Minister and former arms negotiator, has stated that the Soviet Union does not exclude any type of inspection starting with production and up to deployment on surface ships or submarines.

> We suggest that the whole cycle, starting with production up to deployment on surface ships or submarines, would be controlled. In principle, our navy is prepared to open their ships for inspections. There will be no problem.[146]

Agreement by the nuclear powers to accept this proposal would help overcome verification problems with sea launched cruise missiles for START, but should not hinder plans for the development of advanced forms of these missiles. It would solve the verification problem for deployed missiles of this and other types. The numbers of nuclear weapons deployed on each carrier would have to ' be declared by all nuclear powers at some agreed time, and could then be monitored from production, distribution, and storage data. Inspections at an agreed rate and of agreed carriers would serve to verify these numbers. These actions should only enhance deterrence by establishing unambiguously the capabilities of each country involved.

THE PROBLEM OF NON-ACCEPTANCE.

The probability that all the nuclear powers will immediately accept all these six proposals is undoubtedly small. There is no reason why they should not react positively to some of them at least, in modified form perhaps. A question that arises is how can countries affected by NCND policies respond to a complete rejection of any suggestion that NCND should be abandoned. There are courses of action that can be considered.

ACTIONS TO ENCOURAGE THE ABANDONING OF NCND.

1. Countries that now have non-nuclear policies' should enforce them properly. Nuclear Weapon Free Zone regulations should be tightened.

Countries like Denmark, Japan, and Ireland should, in the face of continued imposition of NCND enforce their non-nuclear policies for ship visits and overflights by demanding written guarantees that the carriers in question are free of nuclear weapons, and demanding inspection rights to verify those guarantees. The initial response by the nuclear powers would very likely be quite negative as it was to New Zealand's less stringent policy. But if sufficient countries imposed these conditions, the situation could well change favourably as the inconvenience accruing from clinging to an outmoded NCND policy became more burdensome for those using it.

A further step would be for the provisions of the Latin American and South Pacific nuclear free zones regarding transit of nuclear weapons to be tightened considerably. This involves major problems relating to questions of the freedom of the high seas and port access, but is a goal that should be worked towards if the oceans are to become zones of peace as is being widely suggested.[83]

2. All non-nuclear countries should cooperate to support and strengthen the Law Of The Sea Convention.

The United Nations *Convention on the Law of the Sea*, adopted on30 April 1982, was opened for signature on 10 December that year. At the closing for signatures on 9 December 1984, 159 states and entities had signed the Convention. By 20 October 1˙9˙88, 35 instruments of ratification had been deposited.[145] The Convention enters into force one year after the receipt of 60 ratifications or accessions. None of the nuclear powers had ratified it as of 20 October 1988.

This Convention contains some interesting Articles.[83] All ships enjoy the right of Innocent Passage through-the-territorial sea of any state, which the state may extend to a distance of 12 miles from its coast. However, under the regime there is no freedom of overflight for foreign aircraft, and submarines ' are required to navigate on the surface and show their flags. A coastal state may require foreign ships exercising the right of innocent Passage to use sea lanes and traffic separation schemes as it may designate or prescribe for the regulation of the passage of ships. This applies particularly to tankers, nuclear powered ships, and ships carrying nuclear or other dangerous substances. Moreover, such ships when exercising this right must carry `documents and observe special precautionary measures established for them by international agreements. The Meaning of Innocent Passage is clarified in Article 19 of the Convention.

The above restrictions can be applied to warships. For example, a warship may be required to leave the territorial sea of a state immediately if it fails to comply with the laws and regulations of that state concerning passage through its territorial sea.

States concerned by the proliferation of naval weapons, particularly nuclear weapons, and the problems raised by NCND could help to alleviate these concerns by ratifying the Convention. Then coastal states could enforce the requirements described for passage through territorial seas, and other aspects

of the Convention. These coastal states could then demand to see documentation relating to nuclear substances, warheads and missiles, being carried by nuclear capable ships before granting permission for such ships to transit their territorial seas through prescribed sea lanes that would label those ships as nuclear armed. They could require all submarines to transit those seas on the surface showing their flags, and demand full details of cargoes for overflights. Clearly these requirements conflict directly with NCND. The legal aspects of the Convention as it relates to nuclear weapons are discussed fully by P Birnie in the 1987 publication *Nuclear Weapons and International* Law.[106]

3. The development of technology to render NCND obsolete should be supported as actively as possible.

When discussing violations of NCND, an experiment carried out in July 1989 was outlined in which a joint group of American and Soviet scientists, American Congressmen, and a small international contingent of reporters visited the Black Sea port of Yalta to observe tests designed to detect a sea borne nuclear warhead. The tests were organised by the Natural Resources Defence Council, a New York based scientific research group, and the Soviet Academy of Sciences. While at sea on board the Soviet cruiser Slava for several hours, a variety of techniques were tested for detecting radiation from the uranium and plutonium in the warhead of a short range SS-N-12 anti-ship missile.[146] Considerable resistance to the tests by the United States Administration was reported.

Tests were made with equipment placed directly against the missile launcher and remote from it, including equipment carried in a helicopter and a truck. The warhead was detected successfully in all cases, radiation from the warhead being detected up to about 80 metres from the cruiser with one set of equipment.

These tests were clearly carried out in ideal conditions, the ship having been cleared of other possible sources ofradiation that might have interfered with the measurements, and the warhead not being shielded. The scientists and others present accepted this. The experiment does, nevertheless, mark the beginning of what is intended to be a continuing joint programme to improve ' techniques for verifying the presence of warheads on ships at sea.

Other groups are engaged in similar programmes, and technology that could be used to detect and monitor nuclear warheads on sea launched cruise missiles at ports for example is also being investigated along with other means of verifying limits on nuclear weapons.[147]

At present much of this work is being done by independent groups, in the West at least. They should be encouraged and supported as actively as possible. Government involvement in these programmes should be strongly encouraged. The research not only challenges NCND but is vital for success in arms control negotiations. It should receive a much greater proportion of defence funding in all countries than it does at present.

Even the nuclear deterrent element normally regarded as most unassailable, ballistic missile submarines deployed deep in the oceans, may be threatened by new technology. Secret Pentagon experiments underway in Loch Linnhe in Scotland are expected to confirm that sensitive new radar systems can detect a faint "wake" on the surface left by a submarine travelling hundreds of metres below the surface. Air-borne laser systems have also successfully located submarines and mines.[148] The Soviet Union is known to be studying this new radar technology very actively. In the United States, vested naval interests are reported to be strongly opposing submarine detection experiments because they could undermine the strategic role of these submarines. If successful, such techniques would pose a fundamental problem for Britain. The future of British nuclear deterrence depends almost completely on the new generation of Trident 2 missile carrying submarines due to enter service in the mid-1990s.

THE TIME HAS COME.

The neither confirm nor deny policy has been examined in considerable detail. The official bases for maintaining the policy have been discussed and rejected. A much more unacceptable basis for the high value that is at present placed on the policy by some countries has been suggested, and evidence for its validity has been presented. Grave problems that the policy raises have been exposed, and benefits that abandoning it would yield described. Mechanisms whereby the policy could be abandoned without serious loss of the values that certain countries now attach to it have been proposed, along with ways in which reluctance to abandon the policy could be overcome.

Growing demands for naval arms control and disarmament have been referred to. There are also increasing calls for naval arms to be considered as an integral part of an overall military balance rather than seeking an independent naval balance or parity[83] The Disarmament Commission of the United Nations in its ` May 1989 meeting referred for the first time to the NCND principle in its reporting documentation reflecting the suggestion:

by several, delegations that the current practice of nuclear weapon States of neither confirming nor denying the presence of nuclear weapons onboard any particular ship at any particular time should be abandoned.[149]

Many suggestions of confidence building measures for naval forces and activities are appearing now, The United States and the Soviet Union established nuclear risk reduction centres in 1988 to increase communication, avoid accidental nuclear war and terrorist attacks using nuclear weapons, and signed the *Agreement on the Prevention of Dangerous Military Activities,* designed to help prevent the use of-force in responding to unintentional military incidents.[150]

Two recent media reports headed *US-Soviet Warmth Melts the Cold War* and *Russians Scratched From the Arms* Race([15]1) spell out clearly the amazing changes" in superpower relations that are occurring, and the accompanying change in emphasis from military superiority to reductions in military spending that are emerging. [(152)] The Malta summit late in 1989 again showed the warming in East-West relations that is the mark of these times. President Bush declared:

We stand at the threshold of a brand new era of US-Soviet relations.

and President Gorbachev responded:

The world leaves one epoch of Cold War, and enters another epoch. This is just the beginning of a long road to a long-lasting peaceful period.[153]

Also at Malta, President Gorbachev is reported to have formally proposed the abolition of all naval tactical nuclear weapons. The proposal would have restricted nuclear weapons at sea to strategic missile submarines. It was rejected out of hand by President Bush, who also refused to include the US Navy in conventional arms control agreements.[159]

At sea meanwhile there are ballistic missile submarines deployed on which the commanders enjoy a level of autonomy regarding the control of their nuclear weapons not equalled anywhere.[98] Soviet submarines are deployed that are seen by experts in the West as a greater danger to their crews than to anyone else.[155] Recent Soviet submarine accidents like those discussed under violations support this view. Reports have been appearing for some time that indicate the serious unreliability of some naval and air borne weapons including cruise missiles, and new missiles like Trident 2 and the MX missile have failed in tests.[156] The NCND policy is intimately involved in the deployment of, or planned deployment of, these weapons. The contrast between these facts and the rapidly improving situation just discussed is depressing, and must be removed. Eliminating NCND would be a major step in achieving this.

The situation in the Asia-Pacific region is also much less encouraging than in Europe. Speaking to a panel of delegates from a Pacific Economic Cooperation Conference meeting in New Zealand late in 1989, the Head of the North East Asia Project at the Australian National University, Professor S Harris suggested the outside perception was that:

the United States response to Soviet European developments was far more positive than to Soviet Pacific developments. It also appeared that the United States wanted the rest of the world to adjust to its perception but was at the same time slow to respond internationally to a changing world.

he said. A report of this meeting states:

that it was quite clear from comments by various speakers that the United States is seen as an increasingly destabilising influence as it fails to keep up with change (in the Asia-Pacific region).

But a United States representative, Mr P Rosenblatt, former White House official and Ambassador to Micronesia, said that:

emphasis on economic expenditure as opposed to military expenditure raised the spectre of a destabilising effect in the region, particularly if Mikhail Gorbachev's words did not translate into action.[157]

The superpower military presence in the region is shown clearly in the Pacific by the presence of large naval and air forces. Reductions in these forces analogous to reductions underway or proposed in Europe, and the associated easing of the present tensions reflected in the feelings just quoted, would again be asssted greatly by abandoning NCND.

The Soviet Union is proposing a meeting of Foreign Ministers from countries in the region to establish a negotiating mechanism for the consideration of all suggestions connected with the region's security, and has suggested further steps to reduce military tensions. These include troop and armament reductions, limits on military exercises, information exchanges, the mutual renunciation of the first use of any weapons, and a tripartite agreement between the United States, Japan, and the Soviet Union on preventing incidents in and over the high seas, or between Japan and the USSR to complement the existing US-USSR agreement[158] Abandoning NCND would be a very appropriate goal for such negotiations to achieve as a first step to a more secure Pacific.

While many of the arguments in this study could fruitfully be extended, it is considered that enough material has been presented to establish the validity of the claim that the neither confirm nor deny policy is oppressive in its working, is obstructive in many important respects, and is obsolete in now lacking any real strategic justification that can outweigh the problems the policy creates. A recent article, Whether to Confirm or Deny?, by Lieutenant N Flacco, US Navy, in which he suggests that 'it may be the right time for the Navy to reconsider its (NCND) policy.' supports many of the arguments presented here.[162] NCND is a backward looking policy, a policy of the past, increasingly more out of keeping with changes occurring both

This is a time of increasing openness not secrecy, cooperation not confrontation. The time has come for NCND to be abandoned and replaced by measures like those suggested in this study embodied in a policy appropriate to this new era, a policy for the future.

APPENDIX ONE.

CHARACTERISTICS OF SELECTED UNITED STATES NAVAL NUCLEAR

WEAPONS SHORT RANGE WEAPONS - TACTICAL WEAPONS.

ASROC. An all weather, day or night, ship launched ballistic missile carried as the primary anti-submarine warfare weapon on many US Navy warships.

Range - Estimated to be from 2 to 10 kilometres.
Yield - Estimated to be 1 kilotonne.

SUBROC. A submarine launched rocket propelled missile which follows a short underwater path before transferring to an air trajectory. The nuclear depth charge separates at a predetermined point and follows a semi-ballistic trajectory until it re-enters the sea when it sinks to a predetermined depth before detonation. Operational on nuclear powered attack submarines.

Range - Approximately 56 kilometres.
Yield - Estimated to be 1 to 5 kilotonnes.

Terrier. A surface to air anti-aircraft missile for shipboard use. Carried by a variety of US Navy ships.

Range - Greater than 35 kilometres.
Yield - Estimated to be 1 kilotonne.

LONG RANGE WEAPONS.

TOMAHAWK, TLAM/N. A long range sea launched subsonic cruise missile designed for launch from surface ships and submerged submarines. The TLAM/N version is designed for land attack from ships at sea and carries a nuclear warhead. Inertial navigation together with a terrain contour matching system is used to follow a pre-programmed path. This low flying missile cruises at 885 km/hour, Even though these are long range missiles, they are generally classed as tactical, or strategic reserve, weapons as compared with long range strategic submarine launched ballistic missiles.

Range - 2500 kilometres.
Yield - 5 to 150 kilotonnes.

The short range ASROC, SUBROC, and Terrier are being phased out, and some reports suggest that this process is well advanced. It is not clear how this will affect the number of nuclear capable US Navy ships because of plans for the extensive deployment of Tomahawk cruise missiles, see the quotation from ref. 11 on page 50 of the text.

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