Milton Leitenberg SIPRI. 5/III/71.

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Milton Leitenberg
SIPRI, March 5, 1971

Notes for the Conference on the Role of Nuclear Weapons in the Politics and Defence Planning of Non Nuclear Weapon States.

If the following somewhat tangential topics have nowwheres been treated in the prepared papers, it might be considered worthwhile to discuss them at relevant points in the proceedings.

The topics are:

1) proliferation of delivery vehicles
2) proliferation via poorer fissionable fuels
3) fabrication of nuclear weapons without testing
4) testing under a "plowshare" rubric; discussion of plowshare [illegible]
5) analysis and examples of "nuclear blackmail"

I have put down some notes and several references for each of the topics. These comments are crude and are only intended to aid discussion.

1) Proliferation of Delivery vehicles

The following discussion concerns only missiles or missile-capable delivery vehicles, for purely arbitrary reasons. There is of course extensive dispersion of nuclear weapon delivery capable aircraft within the NATO alliance and also outside of it. I simply have not had the time to put together the relevent data. In addition as missiles are considered more sophisticated delivery vehicles than aircraft the point concerning dispersion is heightened. On the opposite side, development of a weapon package for some of the smaller sized missiles might be a more difficult task.

a) The following two tables are taken from Heymont I., The Nato Nuclear Bilateral Forces, Orbis, 9, no 4, winter 1966.

Table I
NUCLEAR-CAPABLE WEAPONS SYSTEMS IN THE POSSESSION OF NATO NATIONS

	8-in	155 mm	Honest John	Corporal	Nike Hercules	Sergeant
Canada			X			
Belgium	X	X	X		X	
Denmark			X		X	
France		X	X		X	
Greece			X		X	
Italy	X	X	X		X	
Netherlands			X		X	
Norway		X			X	
Turkey	X		X		X	
United Kingdom				X		
West Germany			X		X	X

Table II
DELIVERIES OF NUCLEAR-CAPABLE WEAPONS SYSTEMS UNDER VARIOUS U.S. MILITARY ASSISTANCE PROGRAMS

	DELIVERIES	
	Cumulative FY 1950-65	Estimated July 1965 and After
Nike Missiles	2,927	261
Corporal Missiles	113	-
Honest John Rockets	3,673	185
8-inch Howitzers	123	1

Source: Department of Defense, "Military Assistance Facts", February 15, 1965, p. 19.

Even this data is very incomplete. It stops at 1966. The tables do not mention Mace, Matador or Pershing. Lance is now to be procured by several NATO nations. When a successor missile system is introduced, various NATO nations apparently retain the older missile - or at least there seems no available information to the contrary.

b) The Italian cruiser Giusseppe Garibaldi is fitted with four Polaris tubes. (Janes Fighting Ships, 1965-66 to 1969-70). She test fired Polaris rockets in the Caribbean in 1962. The newer Vittorio Veneto was reported to be the second Italian cruiser fitted for Polaris (Technology Week, 20, no 7, Feb. 13, 1967). This is not confirmed by Janes but the V. Veneto can fire Asroc.

c) In 1963 a new West German submarine ordered by West Germany, Denmark, Norway and Turkey was "reported to have tubes for eight torpedoes, which can be atom tipped" (Undersea Technology, 4, no 5, May 1963).

2) Proliferation via poorer fissionable fuels.

a) At the June 1970 Wingspread conference in the U.S. J. Carson Mark quoted J. Prawitz to the effect that "a colleague of his has become persuaded that he could produce a nuclear explosion from essentially any grade of reactor produced plutonium that might be available". However the explosion yield of a reactor grade plutonium bomb would be lower than a comparable "weapon grade" plutonium device.

b) At 1960 issue of Ordnance stated: ... (reference misplaced; as I remember it referred to Plutonium 241)

3) Construction of nuclear weapons without testing

Nearly all discussions of the test ban treaty imply or state explicitly that development of nuclear weapons is impossible, or nearly impossible, whatever that means, without testing. Discussion of this topic is impeded, not necessarily unhappily, by classified information, yet it has never had adequate treatment in the arms control literature. Iklé, Lapp, Kramish, and a RAND report have spoken for the minority view. Kramish states:

> "Experience gives us no reason to expect that a nation's first atomic device based upon a simple and tried design, will fail. If a nation is reasonably confident that it has the recipe for the Nagasaki bomb, and feels confident of the results of preliminary testing of non-nuclear components, we can be reasonably sure that its device will explode ..... Only by dabbling in advanced nuclear designs, seeking to increase effciencies, adapting warheads, etc., does one incur substantial risk of failure."

Without training in nuclear physics and experience in the inner councils of the Nth nations it is impossible to reconcile these very divergent positions, and it seems to be a desirable issue on which to have as little uncertainty as possible. People with experience in weapon design often tend to feel that a crude design would work, without testing, but simultaneously feel that no military command or directorate would be willing to use an untested weapon. I am not implying that such assessments are wrong, I just feel that more certainty is desirable. To what degree such feelings derive from the ways of military thinking in the major powers, and are perhaps less resolute elsewhere, is unknown. To what degree such opinions will hold 25, 50 and 100 years from now is also unknown. Testing for systems compatability and for logistic support can occur without the detonation of an actual device. Finally there is the matter of political credibility (to the adversary).

The relation of an untested weapon or stockpile to various theories of deterrence is unclear. An untested weapon would have less credibility in the context of deterrence, less nuclear club impressiveness, and the opponent could always hope it would not work, but it nevertheless would have some relevance in all these areas.

The degree to which all observers agree that nuclear weapons are within the technical capabilities of the first rank Nth nations is an indication of the evaluation problem that would arise if 1, 3 or 6 of these countries announced after x years that they had fabricated an untested weapon. In addition use of a nuclear weapon could occur in a situation that was without a context of (previous) deterrence. This cursory discussion may not be on the firmest of grounds, but these are problems that are likely to arise with time, and the interest and value in halting proliferation of nuclear weapons is presumably not relegated to the next 10 years only but to the next 100 as well.

4) Testing under a Plowshare rubric

Brazil stated as policy the intention to develop and hence test nuclear explosives for civil engineering and mineral resource extraction programs ("Plowshare"), saying at the time of signing the Mexico treaty that she would "produce (her) own nuclear explosives as soon as possible". (Though I have not been able to locate one, I believe that India has made a number of statements to the same effect.) To date, schemes for gas stimulation, earth moving, oil stimulation, extraction of copper ores and tar sands, construction of storage caverns, etc., have all been extraordinarily poorly analyzed and opportunistic suggestions by various interest groups in the nuclear powers with strong and direct interests in increasing the popularity and public acceptability of nuclear explosives of all types. There has not been to date a single thorough cost-benefit analysis concerning any of these proposed schemes which included consideration of technical or commercial feasability, alternative methods, utilizability of alternative materials to those sought, et ., or one funded by a non-mission oriented agency.(This statement holds for the recent Panama Canal studies as well.) Economic returns appear marginal or entirely debatable. In a choice between nuclear engineering and controlling the nuclear arms race, the former is trivial. There have been no studies (that I am aware of) setting these two choices out in detail either. Claims by non nuclear nations to be developing nuclear explosives for peaceful purposes are to be considered transpar nt.

> (The Questions of Nuclear Explosives for Peaceful Purposes by Non-Nuclear-Weapon States and the Possibility of Misuse of Such Technology for the Production of Nuclear Weapons. Ulf Ericsson U.N. A/conf.35/Doc. 3 July 3 1968 Geneva.
>
> Peaceful Nuclear Explosions and Disarmament, T.S. Lough, Peace Research Reviews, 2, no. 3, 1968.
>
> International Arrangements and Control for the Peaceful Applications of Nuclear Explosives, M. Kalkstein, Stockholm Paper no. 4, SIPRI 1970.)

5) Analysis and esamples of "nuclear blackmail" (This however refers as much to policy of nuclear powers as it does to non nuclear powers).
There will be no analysis here. The point of what follows, a list of dates, allegations and references, is to indicate that such analysis in terms of specific incidents and specific instances of policy process concern with nuclear weapon use is long overdue. None exists. The Kennedy and Abel books and several papers are available on the Cuban missile crisis.
In fact, what is "nuclear blackmail"? Does it include 155 mm guns landed on Quemoy? Certainly it would include direct communications to a foreign power. But is it any better defined a thing than what the other side does, or what the other side is to be accused of doing. Where is the boundary which separates it adequately from other apparently legitimate aspects of potential uses of nuclear weapons as weapons. (If there is no boundary there are no 'legitimate' uses). In some usage it even seems to extend to a nation's ownership of nuclear weapons:"(China's ... nuclear strategy he said, was to use nuclear weapons to break the unity of India". Hindustan Times, May 10, 1970).
In 1957 Hans Speier wrote: (World Politics, April 1957)

> "The uncertainty about whether atomic weapons will be used in future war, whether local or general, lends itself to political exploitation in the cold war. The efficiency of nuclear weapons in wartime, and their resulting threat-value in either war or peacetime, constitute their political-

military worth. In peacetime, the threat-value of weapons can be exploited in many ways: by an ultimatum, by authoritative or inspired statements on capabilities or intention, by studied disclosures of new weapons at ceremonial occasions by means of maneuvers, redeployments of forces, or by so-called demonstrations.

In the preatomic age, naval demonstrations and partial mobilizations of ground forces were standard measures for bringing to bear military pressure on foreign governments in peacetime. In the present era, such pressure can be exerted also by using the threat potential of modern air power and of the weapons of mass destruction. Evidence of this is seen in official statements on deterrence, in threats of instant retaliation, in propaganda to foreign populations about the vulnerability to air or missile attack of their bases, industries, and cities, and in discussions of the vastly increased importance of surprise in war.

.....

A government that is exposed to atomic threats in peacetime readily regards them as "blackmail", whereas the threatening power is likely to call them "deterrence". In order not to fall prey to this confusion of terms, it is useful to distinguish threats according to (1) their nature, (2) their conditions, and (3) their terms of compliance. First, what actions are threatened; i.e., what is the precise nature of the threat? Secondly, what actions does the threat seek to forestall; i.e. what are the conditions under which it will be carried out? Finally, what alternative actions is the threat meant to induce; i.e., what terms of compliance does it attempt to impose?

And in 1970 Chalmers Roberts:

> "..... opened for the Russians an opportunity, eagerly seized by Khrushchev, to engage in rocket-rattling nuclear diplomacy, which at times amounted to nuclear blackmail ..... at the height of the Suez crisis, the Russians had threatened to hurl nuclear rockets at Great Britain, which, with France, had invaded Egypt. The threat added to world alarm at the time, even though it was viewed in Washington as merely a form of political blackmail."

"Nuclear diplomacy ..... nuclear blackmail ..... political blackmail", a hodge-podge, after having on the very previous page quoted Krushchev's 1961 use of the same term against the U.S.:

> "There was a time when American Secretary of State Dulles brandished thermonuclear bombs and followed a policy from 'positions of strength' with regard to the socialist countries. He followed this policy with regard to all states which disagreed with the imperialist claims of the United States. That was bareface atomic blackmail, but it had to be reckoned with at the time because we did not possess sufficient means of retaliation; and if we did, They were not as many and not of the power as those of our opponents."

Thus the material below will <u>not</u> take into consideration such things as Sec. Dulles' doctrine of "massive retaliation", nor Soviet statements such as that to Feildmarshal Montgomery about the vulnerability of NATO allies in wartime in conditions of nuclear warfare. U.S. and USSR practice of what most persons would probably subsume under a category of "nuclear blackmail" seems to be different. The Soviet examples have been overt public threats by the national leaders, either bluff or intended, at times of particular crisis. The U.S. examples have been of a different order and of several grades:

a) direct private communication of a threat to a foreign power
b) deployment of nuclear capable weapon systems at the time of a crisis, or in a chronically stressed area
c) discussion in national decision making bodies such as the National Security Council of proposed use of nuclear weapons in a conflict

The last of these should perhaps not be considered "nuclear blackmail" (perhaps unless information re the debate is leaked). If an equivalent category existed on the Soviet side it would certainly not be known of, but for varying reasons such consideration was probably not a feasable or necessary alternative for the USSR since World War II. Because much less is spoken of or known about the U.S. examples references for these were sought and are indicated below.

1) Korea

"President Truman 'considered' employing atomic weapons in Korea, bringing the British prime minister, Laborite Clement Atlee, flying to Washington to dissuade him from an action that many feared would ignite World War III". (G.C. Reinhardt, RAND P-3011, Nov. 1964)

Some mention of the U.S. policy debate on this matter at the time of Korea appears in books by Truman, Maxwell Taylor, Bernard Brodie, Kissinger, Schelling, J.C. Spanier, and T.W. Wilson Jr. and in papers by Gen. Gavin, (BAS, May 8, 1970), Wohlstetter (in Quade, 1964), Fruchtbaum (Science, May 8, 1970).

Eisenhower's memoirs apparently contain a reference to the communication to the Koreans on this subject but I have not chased this down yet.

"Some high officials in the Eisenhower regime have indicated that we did transmit to Ho, just as we had done in Korea, a threat to use nuclear weapons unless some compromise was reached in negotiations to end the war". (Wohlstetter in Pfeffer, 1968).

2) Vietnam - 1954

Admiral Radford's "Project Vulture" has had reasonably adequate treatment in the literature:

Chalmers Roberts - The Reporter Magazine, Sept, 14, 1954
Norman Polmar - Aircraft Carriers, 1969
Edgar Kemler - Nation, July 17, 1954
R.J. Barnet - Intervention and Revolution, 1968
Bernard Fall - Hell in a Very Small Place; The Siege of Dien Bien Phu, 1967
Jules Roy - La Bataille de Dien Bien Phu, 1963

At least two aircraft carriers had nuclear weapons on board and naval aircraft to deliver them were available in the area. In addition Wohlstetters quotation above refers to a transmittal to the Vietnamese, and Yarmolinsky has referred to "the representations of the joint chiefs as to the liklihood that nuclear weapons might be required..." which seems to be additional to and aside from Radford's plan.

3. Quemoy - 1955, the first Quemoy Crisis

"The Air Force and the Navy had, by majority vote, committed the Joint Chiefs of Staff to the use of atomic weapons for the defense of these islands. General Ridgeway, however, opposed any use or threatened use of atomic weapons. Secretary of Defense Wilson issued a directive forbidding discussion of this controversy on the grounds that "security information" was involved". (H,L, Nieburg, Nuclear Secrecy and Foreign Policy, 1964). See also Chalmers Roberts, The Reporter Magazine, Dec. 16, 1954.

4. Quemoy - 1958, the second Quemoy Crisis

A reasonably thorough summary - Quemoy; The Use and Consequence of Nuclear Deterrence, was written in 1960 by R.W. Barnett, but is not generally available (Harvard Univ.; Center for International Affairs). Whiting and Hanson Baldwin (Limited War, The Atlantic Monthly, 1959) also refer to the nuclear capable 8 inch howitzers which were moved "from Okinawa to Quemoy, emplaced... and turned over to the Chinese Nationalists". Baldwin states that the nuclear shells for these guns were never sent to Quemoy; this is not commented on at all by Barnett. The nuclear capability of these weapons was publicly identified by the U.S. Barnett questions whether these weapons deterred, or were needed to deter, or what their function was in fact, in juxtaposition to the 5 attack carriers with nuclear weapons then in the Seventh fleet, Regulus missiles in the area, and Matadors also quickly set up and announced as being on Formosa.

5. Lebanon

Available information on Lebanon is vague. The Sixth fleet was of course in the area and presumably supplied with nuclear weapons - in fact there were reports that conventional weapons were rushed to it in response to an urgent request from its commander. (similarity to Adm. Felts statement in 1968 in the second Quemoy crisis). Gen. Taylor later made the anomalous statement that "an" Honest John rocket was afloat off Beirut, but was not allowed to land because it could fire an atomic warhead as well as a conventional one.

6. Vietnam: Khe Sanh, 1967-68, and 1970-71

Ellsberg has directly referred to government discussions at the time of Khe Sanh, and these were discussed in the press at the time, finally drawing a disavowal of sorts from president Johnson and General Wheeler. In 1970 rumors began again and private academic contacts with the office of the president have indicated that the administration "refused to rule out the use of nuclear weapons".

The above examples on the U.S. side, - discussion re the USSR follows below - are listed perhaps because they represent deployment or potential deployment against a non nuclear power, (presumably deployment at the time of Lebanon would not have been intended against the Lebanese). Thus the NATO - Warsaw Pact deployments are considered to be in another category, as would be (U.S.) deployment at the time of the Cuban crisis.

It would however be interesting to have a list of times in which these forces have been placed on full alert. This was reported to have been the case with SAC at the time of the Cuban missile crisis, and at the time of the Suez crisis SAC and other US nuclear forces were put on alert, but not those in Europe. In 1966 Neville Brown wrote that "the unique mobility of ballistic submarines has already been exploited by the United States on several occasions to demonstrate her committment to friendly non-nuclear nations under potential threat of nuclear attack". (Journal of the R.U.S.I., 1966). French forces apparently went on alert at the time of the Soviet invasion of Czechoslovakia.

(Reports of) Soviet deployment of nuclear weapons at the time of the Sino-Soviet border conflict are left an open question. I would be inclined to put them together with the listed examples. In this regard it is interesting to recall the constant array of U.S. nuclear delivery forces that have been in the China theatre. We mentioned the two attack carriers in 1954 which increased to five by 1958-59. In 1960 U.S. Chief of Naval Operations Arleigh Burke "said there were more nuclear bomb carrying planes aboard five aircraft carriers in the Mediterranean and Far East than in Russia's entire heavy bomber fleet" (Missiles and Rockets, March 14, 1960). B-47s and B-52s were later based on Guam, in the Phillipines and at Kadena AFB on Okinawa. Regulus missiles were deployed in the China seas throughout the missiles' operational lifetime (1955 to 1965) on both surface vessels and on submarines. Matador missiles were on Taiwan from 1958 to 1967, and 50 1,200 mile plus Mace launchers on Okinawa from 1962-63 till the end of 1969.

"Military planners say the Mace requirement developed because there is no adequate substitute for having a sizable heavy nuclear strike force 350 miles off the China coast. Formosa does not fill the bill because we do not have complete control over it and its armed forces" (Missiles and Rockets, March 13, 1961). (Yet the) Matador missiles were "turned over... to Nationalist Chinese with nuclear warheads maintained under U.S. control" in 1963. Matadors launched from Taiwan require assistance from a ground control radar station maintained in the Pescadores Islands. Regulus carried a high yield warhead, in the range of one megaton. Mace carried a warhead in the high kilotons or of 1 megaton. One source gave a yield as high as 5 Mt in 1962 (Interavia, Nov. 1962)

All in all, rather impressive.

In addition Matador missiles were also in Korea from 1959 to 1962-63, and at the time of the 1969 Pueblo crisis the "USAF had only 12 fighter aircraft in South Korea at the time - all McDonnell F-4s, equipped to carry nuclear weapons only..." (Aviation Week and Space Technology, Jan. 29, 1968).

On January 31 1970 President Nixon stated re the ABM system:

> "The area defense, on the other hand, is absolutely essential as against any minor power, a power, for example, like Communist China .... an area defense... therefore gives the United States a credible foreign policy in the Pacific area, which it otherwise would not have".

In plain English that means the ability, as long as possible, to use nuclear weapons against China with total impunity. Since that is a "threat" of sorts, probably the entire 1954 to 1971 U.S. deployment of nuclear weapons off the China coast would have to be placed somewhere in this framework.

Soviet examples

There is nothing very subtle about these, and in analogy to the older phrase "sabre rattling" have been called "missile rattling" and "rocket rattling nuclear diplomacy" by various commentators. There are questions about how credible they were at various times - that is whether they were bluff or not, (Sir J. Slessor, Foreign Affairs, Oct. 1963), and what their purposes were. (Hans Speier, Soviet Atomic Blackmail and the North Atlantic Alliance, World Politics, April 1957).

1) The most well known examples are the Nov. 5, 1956 notes to Eden and Mollet (U.K. and France) by Bulganin and their adjunct to President Eisenhower.

   to Mollet: "what would be the position of France if she were attacked by other states having at their disposal modern and terrible means of destruction".

   to Eden: "In what position would Britain have found herself if she herself had been attacked by more powerful states possessing every kind of modern destructive weapon. And there are countries now which need not have sent a navy or air force to the coast of Britain but could have used other means, such as rocket technique. If rocket weapons had been used against Britain and France,..."

   to Eisenhower: ("The only direct reference to atomic and hydrogen weapons made in any of the Soviet communications occurred in Bulganin's letter to Eisenhower. It was altogether factual and read simply: ....." Speier)

   > "The Soviet Union and the U.S.A. are permanent members of the Security Council, and the two great powers which possess all modern types of arms, including the atomic hydrogen weapons"

   Speier concludes his analysis of this incident by saying "The use of atomic weapons was never overtly threatened", which is certainly in contradiction to the general understanding of the event.

2) In the 1958 Lebanon crisis Kruschevs' letter to Eisenhower recalled that the Soviet Union "has atomic and hydrogen bombs", very close to the phrasing used by Bulganin two years before to Eisenhower.

3) In July 1960 Mr. Kruschev stated that "Soviet artillery can hit America if the U.S. moves against Cuba".

4) At the time of the U-2 crisis (1960) I believe that Mr. Kruschev threatened bases - and hence nations - from which the U-2's took off and at which they landed.

5) In 1958 Kissinger wrote. "From the Suez crisis to that over Syria warnings of missile attacks have played an increasing role in Soviet diplomacy". (Foreign Affaris, April 1958)

In conclusion to the listing of these U.S. and Soviet "examples", which hopefully would all be within the (a), (b), (c) categories I set up at the beginning of this section, and which are not intended to be understood as complete listings - they are simply the items to which I have references at hand - I would suggest that the examination of these examples or incidents will teach us much more than will theoretical discussions about the possible effects of "nuclear blackmail" in prompting escalation, or other theoretical political discussions.

It would also be interesting to reconcile some of the crisis or alert force deployments with the concerns various nations have had for security guarantees against "nuclear blackmail". How does one separate the "nuclear blackmail" of the deployment of nuclear weapons by one nuclear power against the other which is implicit and must be seen as the necessary fulfillment of a "nuclear umbrella" to protect a non-nuclear nation from "nuclear blackmail". If all nations recognize this as obviously necessary, one ought at least to do away with the slur value of the phrase, and turn it into, if not a respectable term, at least one with more precise and identifiable meaning.

At the meeting of the Security Council, from 17 to 19 June, the U.S.A., U.K. and U.S.S.R. made declarations concerning the security of non-nuclear-weapon states. The core content of the identical statements was that:

> "Aggression with nuclear weapons, or the threat of such aggression, against a non-nuclear-weapon State would create a qualitatively new situation in which the nuclear-weapon States which are permanent members of the United Nations Security Council would have to act immediately through the Security Council to take measures necessary to counter such aggression or to remove the threat of aggression in accordance with the United Nations Charter, which calls for taking "effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace". Therefore, any State which commits aggression accompanied by the use of nuclear weapons or which threatens such aggression must be aware that its actions are to be countered effectively by measures to be taken in accordance with the United Nations Charter to suppress the aggression or remove the threat of aggression.
>
> The (USSR, United Kingdom, United States) affirms its intention, as a permanent member of the United Nations Security Council, to seek immediate Security Council action to provide assistance, in accordance with the Charter, to any non-nuclear-weapon State, Party to the Treaty on the Non-Proliferation of Nuclear Weapons, that is a victim of an act of aggression in which nuclear weapons are used."

The Conference of Non-Nuclear-Weapon States held in Geneva in September 1968 also adopted a resolution re this topic. The Conference:
On the item Measures to assure the security of non-nuclear-weapon states:

1. "Reaffirmed the principle of the non-use of force and the prohibition of the threat of force in relations between States; the right to equality, sovereignty, territorial integrity, non-intervention in

internal affairs and self-determination of every State; and the inherent right recognized under Article 51 of the Charter of individual or collective self-defence'which, apart from measures taken or authorized by the Security Council of the United Nations, is the only legitimate exception to the overriding principle of the non-use of force in relations between States'." (Adopted by 56 votes in favour to 5 against, with 26 abstentions). (Sponsor: Federal Republic of Germany).

The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 11 1971

PROGRAM AND PARTICIPANTS

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971
Klekken Hotel, Norway

P R O G R A M

March 9th, 1971

14.00 Luncheon at Parkveien 45
The luncheon is given by the Royal Norwegian Ministry of Foreign Affairs.
Host: Thore Boye, Permanent Under Secretary

16.00 - 16.30 Departure for Klekken

20.00 Dinner

March 10th, 1971

08.00 - 09.15 Breakfast

09.30 - 09.45 Welcome and Organization of the conference
Johan J. Holst

Perspectives on the nuclear issues in some voluntary non-threshold countries
Chairman: Kenneth Hunt

09.45 - 10.15 Norwegian Perspectives
Johan J. Holst

10.20 - 10.50 Danish Perspectives
Niels J. Haagerup

11.00 - 11.30 Finnish Perspectives
Jaakko J. Valtanen

11.30 - 12.00 Coffee Break

12.00 - 13.30 Discussion

13.30 - 15.30 Luncheon and recreation

15.30 - 16.00 Canadian Perspectives
Michael E.Sherman

16.10 - 16.40 Dutch Perspectives
J.Henk Leurdijk

16.40 - 17.00 Coffee Break

17.00 - 18.45 Discussion

19.00 Dinner

March 11th, 1971

08.00 - 09.15 Breakfast

Perspectives on the nuclear issues and European security

Chairman: John Sanness

09.30 - 10.00 Italian Perspectives
Franco Celletti

10.10 - 10.40 German Perspectives
Uwe Nerlich

10.50 - 11.30 Discussion

11.30 - 12.00 Coffee Break

12.00 - 13.30 Discussion continued

13.30 - 15.30 Luncheon and recreation

15.30 - 16.00 Polish Perspectives
Ryszard Frelek

16.10 - 16.40 Swedish Perspectives
Jan Prawitz

16.40 - 17.00 Coffee Break

19.00 Dinner

March 12th, 1971

08.00 - 09.15 Breakfast

Perspectives on the nuclear issues in some threshold countries

Chairman: Donald G. Brennan

09.30 - 10.00 Israeli Perspectives
Alan Dowty

10.10 - 10.40 Australian Perspectives
Harry Gelber

10.50 - 11.30 Discussion

11.30 - 12.00 Coffee Break

12.00 - 13.30 Discussion continued

13.30 - 15.30 Luncheon and recreation

15.30 - 16.00 Japanese Perspectives
Ryukichi Imai

16.10 - 16.40 Indian Perspectives
K.Subrahmanyam

16.40 - 17.00 Coffee Break

17.00 - 18.45 Discussion

19.00 Dinner

20.30 - 21.00 An American perspective on nuclear guarantees, proliferation and related alliance diplomacy
Malcom W. Hoag

21.00 - 22.00 Discussion

SEC 10/11/71 afternoon

Round Table -

March 13th, 1971

08.00 - 09.15 Breakfast

	The long term problem of nuclear proliferation management
	Chairman: Gunnar Garbo
09.30 - 11.00	Round table discussion R.Frelek, H.Gelber, K.Hunt, J.J.Holst, T.C.Schelling
11.00 - 12.30	Discussion
13.00	Luncheon
14.00	Departure

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Members of the Norwegian Governments Advisory Commission on Arms Control and Disarmament are invited to attend the conference to the extent that their schedules permit. The members of the Commission are:

Gunnar Garbo,	Member of Parliament (Liberals)
Knut Frydenlund,	Member of Parliament (Labour)
Paul Thyness,	Member of Parliament (Conservative)
Andreas Andersen,	Director General, Office of the Prime Minister
Johan Jörgen Holst,	Director of Research, Norwegian Inst. of International Affairs
Tönne Huitfeldt,	Colonel, Norwegian Defence Staff
Finn Lied,	Director, Norwegian Defence Research Establishment
Torkel Opsahl,	Professor of International and Consitutional Law, University of Oslo
Kjeld Vibe,	Deputy Director General for Political Affairs, Ministry of Foreign Affairs
Oscar Værnö,	Head of Divison for Arms Control and Disarmament, Ministry of Foreign Affairs

(3)

The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

BIBLIOGRAPHY
DOCUMENTATION

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971
Klekken Hotel, Norway

NUPI/CP/1 - 71

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THE PROBLEM OF NUCLEAR PROLIFERATION

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The documents pertaining to the negotiation of the Non-Proliferation Treaty (NPT) may be found in the annual Documents on Disarmament, published by the U.S. Arms Control and Disarmament Agency, Washington, D.C., or in the various volumes of Heinrich SIEGLER (ed), Dokumentation zur Abrüstung und Sicherheit, Siegler & Co., K.G. Verlag für Zeitarchive, Bonn. A short history of the NPT is found in International Negotiations on the Treaty on the Nonproliferation of Nuclear Weapons, U.S. Arms Control and Disarmament Agency, Washington, D.C., 1969

A lot of interesting information may be obtained also from an examination of the hearings on the NPT before the committees of the U.S. Congress:

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Military Implications of the Treaty on the Nonproliferation of Nuclear Weapons, Hearings before the Committee on Armed Services, United States Senate, 91st Congress, 1st Session, 1969

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Treaty on the non-proliferation of nuclear weapons.

The States concluding this Treaty, hereinafter referred to as the «Parties to the Treaty»,

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons,

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities,

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products which may be derived by nuclear weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties to the Treaty, whether nuclear-weapon or non-nuclear-weapon States,

Convinced that in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in co-operation with other States to, the further development of the applications of atomic energy for peaceful purposes,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament,

Urging the co-operation of all States in the attainment of this objective,

Recalling the determination expressed by the Parties to the 1963 Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water in its preamble to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end,

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control,

Recalling that, in accordance with the Charter of the United Nations, states must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of The United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources,

Have agreed as follows:

ARTICLE I

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon state to manufacture or otherwise aquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

ARTICLE II

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

ARTICLE III

1. Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfilment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Procedures for the safeguards required by this Article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility. The safeguards required by this Article shall be applied on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction or carried out under its control anywhere.

2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article.

3. The safeguards required by this Article shall be implemented in a manner designed to comply with Article IV of this Treaty, and to avoid hampering the economic or technological developme of the Parties or international co-operation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this Article and the principle of safeguarding set forth in the Preamble of the Treaty.

4. Non-nuclear-weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation of such agreements shall com-

mence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or accession after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

ARTICLE IV

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this Treaty.

2. All the parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other states or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon states party to the Treaty, with due consideration for the needs of the developing areas of the world.

ARTICLE V

Each party to the Treaty undertakes to take appropriate measures to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon states party to the Treaty on a non-discriminatory basis and that the charge to such parties for the explosive devices used will be as low as possible and exclude any charge for research and development. Non-nuclear-weapon states party to the Treaty shall be able to obtain such benefits, pursuant to a special international agreement or agreements through an appropriate international body with adequate representation of non-nuclear-weapon states. Negotiations on this subject shall commence as soon as possible after the Treaty enters into force. Non-nuclear-weapon states party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreements.

ARTICLE VI

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.

ARTICLE VII

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

ARTICLE VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one-third or more of the Parties to the Treaty, the Depositary Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty including the votes of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.

3. Five years after the entry into force of this Treaty a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realized. At intervals of five years thereafter, a majority of the Parties to the Treaty may obtain, by submitting a proposal to this effect to the Depositary Governments, the convening of further conferences with the same objective of reviewing the operation of the Treaty.

ARTICLE IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America, which are hereby designated the Depositary Governments.

3. This Treaty shall enter into force after its ratification by the States, the Governments of which are designated Depositories of the Treaty and forty other states signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear-weapon state is one which has manufactured and exploded a nuclear-weapon or other nuclear explosive device prior to January 1, 1967.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the etry into force of this Treaty, and the date of receipt of any requests for convening a conference or other notices.

6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of The United Nations.

ARTICLE X

1. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to The

United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

2. Twenty-five years after the entry into force of the Treaty, a Conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an adidtional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.

ARTICLE XI

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

In witness whereof the undersigned, duly authorized have signed this Treaty.

Done in triplicate, at the cities of London, Moscow and Washington, at the first day of July one thousand nine hundred and sixtyeight.

Resolution 255 (1968) Adopted by the Security Council at its 1433rd meeting on 19 June 1968.

The Security Council.

Noting with appreciation the desire of a large number of States to subscribe to the Treaty on the Non-Proliferation of Nuclear Weapons, and thereby to undertake not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

Taking into consideration the concern of certain of these States that, in conjunction with their adherence to the Treaty on the Non-Proliferation of Nuclear Weapons, appropriate measures be undertaken to safeguard their security,

Bearing in mind that any aggression accompanied by the use of nuclear weapons would endanger the peace and security of all States,

1. *Recognizes* that aggression with nuclear weapons or the threat of such aggression against a non-nuclear-weapon State would create a situation in which the Security Council, and above all its nuclear-weapon State permanent members, would have to act immediately in accordance with their obligations under the United Nations Charter;

2. *Welcomes* the intention expressed by certain States that they will provide or support immediate assistance, in accordance with the Charter, to any non-nuclear-Weapon State Party to the Treaty on the Non-proliferation of Nuclear Weapons that is a victim of an act or an object of a threat of aggression in which nuclear weapons are used;

3. *Reaffirms* in particular the inherent right, recognized under Article 51 of the Charter, of individual and collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security.

(4)

The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 7 1971

Niels J. Haagerup

NUCLEAR WEAPONS AND DANISH SECURITY POLICY

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971
Klekken Hotel, Norway

NUCLEAR WEAPONS AND DANISH SECURITY POLICY

Niels Jörgen Haagerup

Berlingske Tidende

The very term "threshold power" would probably be abhorrent to Danish policy-makers. They see Denmark ---as does the public, undoubtedly---as a small, non-nuclear state with no nuclear pretensions whatsoever and with only a highly theoretical, and very tiny, potential for military nuclear power. The idea that Denmark might yield some influence, however limited, in preventing the spread of nuclear by playing upon an implicit threat of going nuclear herself unless other and real theshold powers definitely abstain from acquiring nuclear weapons has probably not even been considered.

This is curious from at least one point of view, since Denmark has tried to play a role in the international efforts to stop or to limit the spread of nuclear weapons. The Danish position is by no means unique in this respect, but Denmark has practically been in competition, especially with Ireland, to be and to remain the perfect non-nuclear state par excellence.

The Danish government has been active in the discussions in the United Nations, especially in the deliberations of the First Committee of the United Nations during the annual General Assemblies. Not a member of the CCD herself, although she would have liked to have had the place which was taken

by Holland, she has often praised the work of the CCD and its predecessor, and unlike Sweden and other threshold powers has been very reluctant to engage in any criticism of the super powers.

Denmark was one of the very first countries---after Ireland---to ratify the NPT. What is more remarkable, in September, 1968 the Danish government, by way of a memorandum, tried to influence the governments of almost all the key threshold powers to sign and to ratify the NPT. The Danish ambassadors or charges d'affaires in Bonn, Rome, Berne, Tel Aviv, Tokyo, New Delhi, Buenos Aires and Rio de Janeiro were instructed, as of September 26, 1968, to inform these respective governments of the Danish government's views on the great importance of a rapid ratification of the NPT.[1] It should be added that this highly unusual Danish diplomatic initiative was not mentioned or noted in the Danish press at the time and presumably not by the press in the countries concerned. No information is available as to the reactions of the recipient countries, if any.

More constructively, Danish nuclear scientists and other staff members of the Danish nuclear research station at Risö have developed various control methods which are in fact used by the IAEA in its work in member countries. Danish specialists are also cooperating with experts from certain other countries in developing and improving control methods. This work was started in April, 1970. Finally, Denmark has actively contributed to the work of the Nordic Cooperation Committee for

Detection Seismology, established in 1967. It submitted its report in 1969.[2)]

The Danish political activity to hasten the ratification of the NPT cannot be explained in purely a foreign political context. It must also be examined against the background of the domestic political scene in Denmark, the composition of the present government and, in particular, the personal interest of the Danish Minister for Disarmament, Mr. Helveg Petersen---who is also Minister for Cultural Affairs and Minister for Developing Countries. This splendid mixture of jobs can hardly be rivalled by any other country, developed or under-developed.

It would not suffice, however, to explain the activity in terms of personalities or in terms of one individual. It is accepted, if not very much discussed, that the prevention of a further spread of nuclear weapons would definitely contribute to international security, and thereby also to Denmark's security.

It is interesting, however, that since the NPT Denmark has been at a loss as to what should be done to "follow up" on the signing---and eventual ratification---of the treaty. A subcommittee of the Danish Disarmament Committee, consisting of both political representatives and foreign ministry officials, was asked in 1967 to study the possibilities for supplementing a NPT with other partial disarmament measures in Europe. The report of the sub-committee, which was headed by the chairman of the Disarmament Committee, concluded that

it was not possible to pinpoint concrete European disarmament steps which would be a natural follow-up to the NPT. It was suggested that the best thing for Denmark to do was to follow the international disarmament debate very closely, so as to be better aware of the possibilities for further steps.[3)]

Since that time the Danish disarmament efforts have mainly concentrated in the field of conventional armaments. This began in 1967 with the proposal by the then Prime Minister and Foreign Minister Jens Otto Krag in the United Nations requesting the Secretary General to ascertain the views of the member states on the possible registration of all transfers of weapons from one country to another. This was submitted too late for discussion in 1967 but was reintroduced in 1968, again as a proposal to inquire about the views of the UN member states on the registration of international arms transfers. But although a number of countries had indicated their support beforehand, other countries, especially some non-aligned and Communist ones, opposed the proposal as discriminatory towards the arms receiving nations (an Indian argument), or as a deviation from the road towards disarmament (a White Russian argument). This proposal was, therefore, recalled before a vote was taken, but the Danish interest in it was maintained, and the Danish emphasis on disarmament measures relating to conventional weapons has been stressed more than once. By far the largest majority of the UN member states are burdened budgetwise by conventional weapons, and these weapons constitute a danger, as a member of the Danish delegation

pointed out on November 12, 1970 in the First Committee of the 25th General Assembly.[4] In the field of nuclear weapons disarmament Denmark is no longer particularly active, except for strongly supporting SALT in various official pronouncements inside and outside the UN.

As far as nuclear weapons in Danish defence policy are concerned, it is doubtful if the Danish views differ radically or even slightly from those of Norway. Very briefly, it can be said that when the Danish nuclear exclusion policy was first stated in 1957 it was with the stipulation that this policy applied to the "present conditions". As recently as 1964 Foreign Minister Per Hækkerup stated, in a speech to the Danish Folketing, that Denmark continued to refuse nuclear weapons on her soil, "But that does not mean that in saying no we commit ourselves to an indefinite future which we do not know...."[5] But this statement, however cautious in its reservation, was rather an exception. As time went on the "present conditions" reservation to the nuclear exclusion policy began to disappear altogether, and for a number of years the Danish nuclear policy has simply been that Denmark will not accept nuclear weapons on her soil. Sometimes the words "in peacetime" are added; more often they are not. Not too much significance should be attached to the wording. The policy in a war situation, or even in a period of tension, is not prejudiced. Still, the refusal to accept nuclear weapons in time of peace has become almost dogmatic and has also been justified by the so-called Nordic balance, to which Mr. Per Hækkerup especially

has referred more than once.[6)]

However, this stand was a purely political decision. The Danish Chiefs of Staff urged that Denmark should acquire ammunition and pointed out that the Honest John and Nike missiles received from the United States were of very limited military use without nuclear warheads. When a politically important defence agreement was concluded by all major political parties inside and outside the government in 1960 the Chiefs of Staff again advocated that nuclear ammunition be stored in Denmark under the approved nuclear stockpile arrangement of NATO. They were supported in this by the two opposition parties, the Moderate Liberals and the Conservatives, which together held almost 40% of the seats in the Folketing.

But the three government parties, the Social Democrats, the Radical Liberals and the Single Tax Party, opposed the idea. Mr. Poul Hansen, the Defence Minister, explained the Danish attitude in an article in January, 1961 : "As the situation is today it is probably doubtful if Denmark would obtain greater security against an act of aggression launched especially against us by receiving nuclear weapons. The decisive factor is that we (Denmark) are part of a larger whole, and that it is certain that an aggression would release such an opposition that the aggressor must take into account that the alliance becomes effective. Accepting nuclear weapons could, on the other hand, contain a risk for the detente efforts and make them more difficult if nuclear weapons were spread to larger areas than where they are already. Denmark and Norway

have pursued the same policy in this, and no change in this policy seems to be called for."[7)]

The reasons for the Dutch refusal to accept nuclear ammunition are thus given to be the fear of its detrimental effects upon the detente, the danger of a further geographical spread of nuclear weapons and the wish to follow the same policy as Norway. The view that nuclear weapons on Danish soil might not add to the deterrent effects of the NATO guarantee of Denmark's security was also included among the arguments for the nuclear exclusion policy.

It is not possible to say to what degree these arguments constituted an after-rationalization of the original Danish decision. They could all be considered valid from a Danish point of view, although it would be erroneous to ignore the domestic political climate. The influence of the nuclear disarmers was negligible and very likely nonexistent at the time of the original Danish decision in 1957. Their claims of having influenced Danish nuclear policies were later repudiated by Mr. Hækkerup.

But as the campaign against nuclear weapons grew stronger in the early 60's it is likely that it influenced public opinion. It is notable that the Conservatives and the Moderate Liberals dropped their demand for nuclear weapons (ammunition) as early as 1962 without any explanation. The matter was not raised again, in spite of the fact that the military reasoning behind the advice given by the Chiefs of Staff in 1960 was still considered valid by the military leaders. But by 1962

it had become an axiom that Denmark could not accept nuclear weapons. It was no longer a controversial issue. The Nordic balance argument was added to those of Mr. Poul Hansen in the 1961 article.

The impression was gradually created that the nonexistence of nuclear weapons in Denmark was favourable to the detente, though suggestions such as those made by the Finnish President, Mr. Kekkonen, in regard to a more permanent commitment for making Scandinavia a nuclear-free area were rejected. Such an arrangement could only be brought about as part of a wider European security scheme, it was officially stated by the Danish government.

Back in 1958 the Danish Prime Minister, Mr. H.C. Hansen, in a letter of reply to the Soviet Prime Minister, Mr. Bulganin, wrote that the Danish government assumed that his (Bulganin's) idea of an "all Northern Europe" free of nuclear weapons had been submitted with the understanding that "Northern Europe" also included those areas of the Soviet Union which, from a geographical point of view, belonged to that area.[8)]

Also the Chiefs of Staff seem to have accepted the idea that the political assets of the Danish policy are of more importance to the security policy of the country than the military advantages obtainable. If this holds true, the basis for such an evaluation is presumably that the risk that an aggression would escalate into nuclear war is just as great without nuclear ammunition on Danish soil in normal times of peace as it would be with a changed policy.

The issue of nuclear weapons on Danish soil did not come up again until 1968 when an American B-52 plane carrying hydrogen bombs crashed close to the coast of Greenland outside Thule. The Danish government made it clear that the Danish nuclear exclusion policy also applied to all of Greenland, and that it was assumed that this policy was fully respected by the United States. This was not contested by Washington, since the U.S. government pointed out that the plane had been on a routine mission flying along the coast of Greenland and had not been stationed in Greenland.

The question of nuclear weapons also arose in a different context when the MLF was discussed. The Danish government refused to commit itself to a policy of straight approval or blank refusal, but made it clear that it did not plan to participate in such a scheme if it were carried out and that it (the Danish government) was completely satisfied with the present nuclear arrangement within the alliance. However, when the formation of a Nuclear Planning Committee was discussed later Denmark supported the idea, mainly because it diverted attention away from the controversial MLF plan. Denmark was not convinced that the MLF would, in fact, increase the likelihood of the proliferation of nuclear weapons, or that Germany would get access to nuclear weapons via the back door, as it was put.

But Danish official circles and public opinion were very much aware of the Soviet arguments against the MLF and feared that the negative Soviet position would make a NPT less likely. In view of the strong Danish interest in a NPT

it was considered undesirable to establish a multilateral nuclear force or any other kind of joint NATO nuclear force.

The Danish support for the idea of the McNamara committee applied to the original idea of an "select" committee, since Denmark had no wish to be involved herself. But when it turned out that other small and medium-sized NATO countries such as Holland and Turkey were anxious not to be excluded from the planned consultations, the Danish government indicated its willingness to participate in the new arrangement. Consequently Denmark---though in the first round not Norway---became a member of the NDAC and 18 months later joined the NPG for a year and a half. This participation has not been particularly controversial in Denmark, although newspaper reports on new guidelines on the use of tactical nuclear weapons, possibly as a means of demonstration and conceivably in the Baltic, aroused some interest for a short time. But the reports were denied and probably only briefly stimulated the general feeling that nuclear weapons are bad and therefore are to be avoided.

It has never been denied, however, and several times was publicly acknowledged that nuclear weapons play a vital role in the defence of the alliance. Furthermore, the Danish Defence Minister has more than once warned against "lowering the nuclear threshold", although his statements on the subject have normally been used to combat proposals to cut the conventional forces. His warning appeals to the popular loathing of nuclear weapons, making it clear that any reduction of conventional manpower would most certainly increase the difficulties

in preventing a possible aggression from escalating into a nuclear war. The argument warning against lowering the nuclear threshold was used as recently as December, 1970 by the Defence Minister in his rejection of a Social Democratic defence reform proposal implying considerable manpower reductions.

The Danish rejection of tactical nuclear weapons for her own forces is now taken so much for granted that in a wide-ranging official review of Danish security policy published in the autumn of 1970 no attempt was made to analyse the reasoning behind this policy. It is considered not only unequivocal but unalterable. To question it is out of the question. To discuss it is unnecessary. Therefore---this abrupt end to a brief survey of Danish nuclear policies.

Haagerup

NOTES

1) Beretning til nedrustningsministeren (Report to the Minister for Disarmament) om nedrustningsudvalgets virksomhed og den internationale udvikling med hensyn til nedrustning i 1968, bilag (appendix) 28, p. 144, Copenhagen, 1969

2) Beretning til nedrustningsministeren...1969, pp. 59-60, Copenhagen, 1970

3) Beretning til nedrustningsministeren...1968, bilag 41, pp. 175-215, Copenhagen, 1969

4) manuscript copy

5) Dansk sikkerhedspolitik 1948-1966 II, bilag 172, p. 394, published by the Danish Foreign Ministry, Copenhagen, 1968

6) Per Hækkerup, Dansk udenrigspolitik, Fremad, Copenhagen, 1965, p. 99

7) Statement by Mr. Poul Hansen, Dansk sikkerhedspolitik I, op. cit., p. 118-119

8) Dansk sikkerhedspolitik I, op. cit. p. 118

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The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 10 1971

WHO'S WHO AT THE CONFERENCE

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971

Klekken Hotel, Norway

WHO'S WHO AT THE CONFERENCE

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JENS M. BOYESEN holds the rank of ambassador and since 1968 has been Norway's Permanent Representative in Geneva. He was born in 1920 and earned a Cand. Jur. (Law Degree) from the University of Oslo in 1947. He was State Secretary, Ministry of Foreign Affairs, 1951/54 and State Secretary, Ministry of Defence, 1954/55. From 1955 to 1963 he served as the Norwegian Ambassador and Permanent Representative to NATO and OEEC. From 1963 to 1965 he was again State Secretary, Ministry of Foreign Affairs. He is a member of the Council of the Institute for Strategic Studies.

DONALD G. BRENNAN conducts research studies at Hudson Institute, Croton-on-Hudson, N.Y. Born in 1926, he received a B.S. (1955) and Ph.D. (1959) in mathematics from the Massachusetts Institute of Technology. For nine years he was a research mathematician and communication theorist at the Lincoln Laboratory, MIT. Since 1957 he has been a student of national security problems. He is especially interested in advance military policy, alliance relationships in Europe, and selected areas of arms control. Mr. Brennan was President of Hudson Institute from 1962 to 1964. He is the editor of Arms Control, Disarmament and National Security and the Fall,

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ARNE OLAV BRUNDTLAND was born in Norway in 1936. He earned a Magistergrad in political science from the University of Oslo in 1962. He was a visiting scholar at the Center for International Affairs, Harvard in 1964/65, at Helsinki University in the spring of 1968 and at the Institute of World Economy and International Relations, Moscow in January, 1970. Since 1963 he has been a Research Associate at the Norwegian Institute of International Affairs. He is the author of Sikkerhetspolitisk omprövning (1968) and Problems of Nordic Balance.

FRANCO CELLETTI was born in Rome in 1945. He is a graduate of the University of Rome in mathematics and since 1968 has been in charge of the Section on Disarmament and Strategy of the IAI in Rome. He is currently involved in a project on "Nuclear War in Europe! The Problem of Tactical Nuclear Weapons". In addition, Mr. Celletti has edited several works on strategy including Military Policy and Strategy in Modern China and Effects of Nuclear Weapons: Experts Report to the UN Secretary General. Since 1968 he has been the editor of the Italian edition of Strategic Survey.

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VIDAR WIKBERG has been First Secretary of the Division for Arms Control and Disarmament of the Norwegian Ministry of Foreign Affairs since 1970. Born in 1935, he earned a Magistergrad in political science at the University of Oslo in 1962 and then entered the Foreign Service. He served in Teheran, Rawalpindi and Kabul from 1964 to 1967. From 1967 to 1970 he was Second and First Secretary to the Norwegian Delegation to NATO.

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The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 12 1971

Ryszard Frelek

THE ROLE OF NUCLEAR WEAPONS IN THE POLITICS AND DEFENCE PLANNING OF NON-NUCLEAR WEAPON STATES: A POLISH PERSPECTIVE

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971
Klekken Hotel, Norway

In what I have to say I shall be speaking only for myself, though obviously it is bound to be influenced by the situation of my country and its currents of opinion. Nuclear weapons are a subject which has aroused so much interest, not to say apprehension, in Poland that it has even produced a crop of widely circulated jokes. Here is a specimen. Question: What action is to be taken if a nuclear war breaks out? Answer: Lie down on the ground, wrap yourself in a white sheet and slowly, without panicking, crawl to the nearest cemetery. I imagine that the defense doctrine expressed in this answer can be treated as a universal one. The only effective insurance against the nuclear threat is to do everything in our power that is necessary to banish this danger, which means making absolutely sure that these weapons will not be used.

As far as Poland's position on the nuclear weapons issue is concerned, it is in a sense paradoxical. After all, it was my country which pioneered the idea of atom-free zones which has gained great favour in the world and even been implemented in a number of regions in the form of treaties or declarations. But not, unfortunately, in the area to which it originally referred, which was Central Europe. Moreover, it is Poland which, along with Czechoslovakia, has been marked out as the target for tactical atomic weapons, for what is called a "warning salvo". This is to be learned from the "Guidelines" for the use of tactical nuclear weapons in Eastern Europe recently adopted by NATO. You can imagine how Polish public opinion feels about that. Not that I think there is any point in taking issue with the authors of these "guidelines" on moral grounds. What I shall try to do later is to put forward some pragmatic arguments which suggest to me that anyone who thinks along such lines has taken leave of the instinct for self-preservation.

Among the general remarks presented by Mr. Johan Holst, with which incidentally I thoroughly agree, there is the following recommendation: "The papers ought to identify the explicit policies which the countries have pursued as well as characterise

the nature of the position actually arrived at. "This, I think, is absolutely right.

Polish policy on nuclear weapons is fairly widely known, thanks chiefly to two initiatives: the Rapacki Plan and the Gomulka Plan. As you know, the Rapacki Plan, first tabled in 1957 and subsequently revised in the spirit of the comments it aroused, proposed the creation of an atom-free zone in Central Europe. Its object was the complete denuclearization of this area, the elimination of all atomic weapons. Thus it also aimed at removing the danger of these being used in the intensely inflammable contact-zone between two opposed politico-military groupings and at sealing off this area against any possible proliferation of them.

Obviously, as regards this latter point, one of the principal objects was to forestall the nuclear armament of West Germany. This was the aspect of the Rapacki Plan which attracted the greatest attention in the West and was in fact seized on as the main objection to the idea of an atom-free zone. However, it was not long before it transpired that the Plan had shown considerable foresight in its anticipation of this particular danger as well. A few years after its announcement and its dismissal by NATO came the disclosure of the well-known memorandum of the Bundeswehr generals concerning West German access to nuclear weapons. Various schemes were canvassed with this end in view, notably the so-called "multilateral force". This made it much easier to understand the hostility shown by the governments of Chancellor Adenauer and his successors to the Rapacki Plan. This said, let me make it quite clear that I fully appreciate and endorse the observation made by the present West German Chancellor, Herr Willy Brandt, in his book, "Friedenspolitik in Europe", that the rejection of the Rapacki Plan was wrong and that it should have been made the subject of wide and constructive discussion.

I make no secret of the fact, nor for that matter have we in Poland ever done so, that one of the chief purposes of the

Polish initiatives on nuclear weapons was to prevent them getting into the hands of West Germany. I don't see how anyone can find this surprising. Poland which lost 6,5 million people in the Second World War and was spared none of the horrors of total war in its Nazi version, had and has not only the right but also an inescapable obligation to take an active stand against any prospect of weapons of mass destruction being made available to Germany. This will be understood all the better when we remember that all previous West German governments persistently disputed a third of the present area of Poland. Nevertheless I cannot emphasise too strongly that it was not these aspects of the Polish initiatives on nuclear weapons which were the heart of the matter. The results of the Second World War and above all alliance with the Soviet Union and the appearance of the German Democratic Republic have utterly transformed Poland's security conditions. Before the war, Poland, like Czechoslovakia and certain other countries, lived in acute danger from the German threat and had to face it alone. As things stand now, my country is in just the same position over security as other parts of Europe. Germany is no longer the menace with which we had to contend in the past. The problem that now confronts us, and other countries as well, is to remove the danger of a new war in Europe and, in particular, to ensure peace in the area of central Europe where the security of the whole continent is at its most vulnerable.

The reason I am stressing this point is that appreciation of these new security conditions is essential to proper understanding of the Polish initiatives on nuclear weapons and, in more general terms, Polish policy on the issue of security in Europe.

If we are so firmly opposed to any thought of West German nuclear armament it is out of concern for the particular danger in which this would place the whole of Europe. The reason we feel so strongly on this matter is not simply the past record of Germany and our memories of the last war. Although this is an argument of some force, especially on the grounds of political morality, there are others which are far more immediately to the point.

In the first place, the prospect of West German access to nuclear weapons is made particularly alarming by the division of Germany into two states - why, I need hardly elaborate. In the second place, it would be positively inviting proliferation of nuclear weapons.

Let me be perfectly frank: I am sure that if, despite the signature of Chancellor Brandt's Government, the Non-Proliferation Treaty fails to achieve ratification and came into force in West Germany, Poland, and no doubt certain other countries as well, would be compelled to have second thoughts about their atitude to the Treaty, which we were one of the first states to sign and ratify. In the same way, any multilateral schemes, like the MLF or the "European nuclear pool", would raise the question of the response of the Warsaw Treaty. I am drawing your attention to this because the idea of West Germany securing access to nuclear weapons has not, as we know, been altogether abandoned. On this matter Herr Strauss, for one, does not see eye to eye with Chancellor Brandt and has been openly toying with the possibility of creating a "European nuclear pool" made up of Britain, France and West Germany. And there are other straws in the wind which we find disturbing, like the recommendation of a European nuclear weapon made over a year ago by a group of Conservative Party members in Britain. I think therefore that the West would be well-advised to get it clear that the Soviet Union and the other Warsaw Treaty countries are thoroughly determined to prevent the nuclear armament of West Germany in any circumstances. As we see it, such an eventuality would spell war in Europe. I myself believe that in the same way as it is held in the West that West Berlin would be a casus belli for NATO, the corresponding issue for Eastern Europe would be West German access to nuclear weapons.

The purpose of what I have said is to explain our point of view on nuclear weapons, and not to put West Germany in the dock, which is how Polish pronouncements on the problems of security in Central Europe have tended to be treated, especially in the past.

In my own mind I am sure that Chancellor Brandt's Government knows the score and is anxious to keep West Germany out of a blind alley. It is in point of fact trying to steer West German policy out of the dead end in which it was stranded by its predecessors in Bonn. One token is the landmark Treaty concluded in Moscow on August 12th, 1970 which opened the door to a process of normalization of relations between the socialist countries and West Germany. A second is the Treaty concluded with Poland on December 7th, 1970. We believe in Poland that Chancellor Brandt's Government will succeed in overcoming the opposition at home and among some of its allies and push through the ratification of both these treaties. This lies not only in the vital interests of the countries directly concerned, West Germany included, but also has a crucial bearing on the prospects of strengthening peace and security in Europe. To bring down the curtain on the cold war in Central Europe, which also entails accepting all the necessary political and legal consequences of the existence of two German states, is of cardinal importance to building up the process of detente on our continent and ushering in a new phase in the development of the European situation.

We fully appreciate the significance of the Brandt Government's signature on the NPT and we have no doubts that he is eager to have it ratified and does not share nuclear ambitions of Herr Strauss and the Bundeswehr generals. It would, however, be a mistake to forget that there are also other political forces in West Germany, that these have not given up hopes of securing access to nuclear weapons and that in this they have, unfortunately the blessing of certain quarters in other NATO countries. For this reason it is essential that on the basic questions of European security, including nuclear weapons, the issues be draw absolutely clearly.

As far as Poland is concerned, we neither wish nor plan to embark on a course of nuclear armament. Poland was among the first

group of states to sign and ratify both the Moscow Partial Test-Ban Treay of 1963 and the NPT. We have also recently signed the treaty on denuclearization of the sea and ocean bed. It was a Polish initiative which led the United Nations to appoint a group of experts to study the effects of using nuclear weapons. My country has, therefore, been a consistent advocate of putting an end to the nuclear arms race and a particularly vigorous opponent of proliferation. This in fact applies to all weapons of mass destruction and so also includes chemical and bacteriological weapons. Poland is seeking a total ban on these weapons and their complete elimination. We are pleased to see that Norway, along with other Scandinavian countries, takes a similar view on these matters.

This brings me back to my starting-point - the question of non-proliferation. I fully agree with the point made in Mr. Johan Holst's memorandum that "the possibility of continued nuclear proliferation constitutes one of the most salient challenges to the future stability of the international order".

Poland is not a nuclear state and, as I have said, does not intend to become one, even though it commands the requisite scientific, technological and industrial capacity. Nevertheless as a European country and a member of the Warsaw Treaty, Poland is placed in the situation which Mr. Holst describes in the general phrase "nuclear security environment". We lie in the "nuclear engagement" area of two great politico-military alliances, NATO and the Warsaw Traty. Furthermore, we have seen that in the "guidelines" adopted by NATO Poland has been singled out as a target for the possible use of tactical nuclear weapons. No wonder then that the problem of nuclear weapons is one that is bound to be one of our most vital concerns.

Along with the other treaties that have been concluded, the NPT offers a chance of preventing the proliferation of nuclear weapons in the world, though it is not in itself a guarantee that is foolproof. I doubt personally whether the NPT can prove

fully effective unless backed by detente and the defusing of the world's trouble spots. On the other hand, if armed conflicts and the cold war continue, this could scuttle the NPT arrangements. In other words the political formula for non-proliferation reads: NPT plus further detente.

This is a formula which seems to me to be of universal validity. In Europe and perhaps in certain other areas as well, it would need to be extended to include regional systems of collective security.

Before I go on to certain observations on this matter, I would like to pause for a moment and, as I promised earlier, consider the "guidelines" for the use of tactical nuclear weapons recently adopted by NATO. Here I find myself in agreement with some of the comments made by Major E.Hinterhoff in his article, "NATO's Nuclear Strategy and Eastern Europe", published in the November 1970 issue of "NATO's Fifteen". In this he presented certain reservations of a strategic and political nature to the idea of using tactical nuclear weapons. To these I would like to add a few questions of my own which may, I hope, provide some food for thought.

First, to contemplate the use of tactical nuclear weapons by one side, in this specific case, by NATO, must perforce presuppose the possibility of retaliation in the same coin.

Second, if you are thinking of using tactical nuclear weapons against the "transit zone" of the Warsaw Treaty, you must expect the same move to be made against the "trasit zone" of NATO. Now, frankly speaking, I can just understand the authors of the "guidelines", experts from West Germany and Britain, the first of whom assume that both German states will be excluded from the nuclear weapons target area while the latter bank on their country not being treated as a part of the NATO "transit zone", though both propositions seem at best arguable. Nowever it simply beats me how on earth thinking of this kind could have been

accepted by countries like Denmark, Norway, Holland, Belgium, France and Italy which in the event of a clash would form the natural "transit zone" of NATO. In effect they are putting themselves in exactly the same position as they have agreed to put Poland and Czechoslovakia.

Third, if you accept the idea of firing a "warning salvo" with tactical nuclear weapons, you must face up to the question of whether you are not forcing the other side into a position where, in the event of a conflict, it has absolutely no alternative but a pre-emptive strike against the sites of these weapons.

A number of other questions could be added to this list, but I imagine that these three speak forcefully enough for themselves. Not to put too fine a point on it, I must say that of all the suggestions regarding the use of nuclear weapons I have come across, the many-levelled escalation concepts not excluded, this particular one strikes me as exceptionally absurd and dangerous.

However I have brought up this matter simply as a footnote to my main argument which concerns the European "nuclear security environment".

We are confronted by two great challenges:
- preventing nuclear proliferation in Europe and
- nuclear disengagement in Central Europe.

As regards the first of these, the most important task at present is the universal ratification and observance of the NPT by all the states of Europe. When you come down to essentials, what non-proliferation on our continent means primarily and, in point of fact, even exclusively is ruling out West German nuclear armament. This is the key to removing altogether the threat either of "simple", "individual" proliferation to specific European countries or of nuclear weapons spreading on a "multilateral" basis. It may well be that this latter from of proliferation is the greater danger, especially as its advocates are busily going over the NPT for possible loopholes.

However, in Europe, in our specific circumstances, we cannot leave the matter at heading off further proliferation. We are already living in a "nuclear security environment" which totals, taking both sides, NATO and the Warsaw Treaty, together, something like 15.000 warheads, a quantity many times greater than what would be needed to wipe out European civilization.

Complete nuclear disengagement in Europe will not be practicable until such time as we have a total ban on these weapons, if only because there are three European states, the Soviet Union, Britain and France, which are nuclear powers, though the main reason is the military commitment in Europe of a fourth nuclear power, the United States.

However, this does not rule out the prospect, both necessary and possible, of nuclear disengagement in Central Europe. There are many arguments in its favour, above all the fact that this is an area that can be the making or breaking of peace and security on the whole continent. To banish the danger of nuclear weapons being used in this region would be tantamount to insuring they were not used anywhere in Europe.

I am convinced that the time will come when Europe returns to the idea of an atom-free zone. It may well do so by stages, via the Gomulka Plan which recommended no more than a nuclear weapons freeze in Central Europe. In my personal view, the success of the SALT talks, by which we in Poland set great store, could open the way to this.

The point is that our approach to the problems of security in Europe and so to nuclear weapons must be dictated by the requirements of security and guided by detente. For many years they were treated solely, or almost so, from the strategic point of view - in terms of threats and counter-threats. However, the process of detente to date and in the future should be used to make our bearings in this matter the possibility of furthering the chances of a Europe-wide system of collective seccurity and so

of overcoming the cleavages and perils produced by the cold war.

I personaly would pin my hopes of such a change of approach to the convening of a conference on security and cooperation in Europe. Not because I imagine that it could solve all these problems: that would be asking too much. Nevertheless such a conference would herald the opening of a new phase in the development of the European situation and might perhaps lead to the setting-up of some permament body, such as a Security Commission for instance, in which these issues could be given deeper and more businesslike scrutiny. I believe that current developments in the world and still more in Europe warrant such optimism.

(7)

The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/PC - 13 1971

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NUCLEAR WEAPONS IN DUTCH FOREIGN POLICY

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971

Klekken Hotel, Norway

NUCLEAR WEAPONS IN DUTCH FOREIGN POLICY

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I. The present era is often referred to as "the nuclear age", a term which implies a qualitative change in the relations between states as a result of the introduction of nuclear weapons in the international system, as compared to the nature of those relations in the pre-nuclear age. Hassner is right in saying that, "The expression 'the nuclear age' implies an assumption on the decisive relevance of military technology (or, if one wishes, of the global strategic balance) which may be justified but is certainly not self-evident".[1] Nuclear weapons have deeply influenced not only the conduct of world politics, but also the theorizing on international relations. The theory of the balance of power, for example, no longer refers to a multipolar international system in which war and the switching of alliances are the traditional mechanisms of adaptation to a disturbed balance, but to a bipolar, nuclear system in which the nuclear armaments race is the equilibrium factor. The question now under discussion is whether the

concept of balance of power, refering to a special structure of the international system with a characteristic pattern of interstate relations, is still relevant now that we are in the nuclear age.

The formation of theory in international politics has traditionally taken place on the level of the big powers which were the subjects of international politics, while the small states were the objects of international politics. Has the influence of nuclear weapons made this traditional differentiation between large and small obsolete and replaced it with the distinction of nuclear and non-nuclear?

The effort to check the further spread of nuclear weapons was given priority on the agenda of the disarmament negotiators after China revealed herself as the fifth nuclear power in October, 1964. At that time a natural limit to the spread of nuclear weapons seemed to have been reached, since the five nations possessing these were the ones explicitly recognised in the United Nations Charter, which pre-dated Hiroshima and the advent of the nuclear age, as the major powers in the post-war system. Have nuclear weapons enabled small countries to break down the categories of large and small powers, so that the only discriminating factor in the future will be the possession of a nuclear force? On one hand

nuclear weapons are seen as the "great equalizers" which enable small countries to have national solutions to the security problem by creating a system of "global deterrence". This is probably a dangerous myth.[2] But on the other hand we are witnessing a further differentiation which places the U.S. and the Soviet Union in a class of their own, because of the continuous nuclear arms race between these two.

If the Non Proliferation Treaty (NPT) succeeds in keeping the "nuclear club" closed, which is to be seriously doubted for several reasons, it will exclude the acquisition of nuclear weapons as a possible solution to a country's security problems. In the present situation the NPT is unacceptable to those very countries on which the success of the treaty depends. But the great majority of the non-nuclear countries is willing to accept the NPT as a framework within which they have to adapt themselves to the nuclear environment. The range of adaptations by non-nuclear countries varies from a policy of consciously acquiring nuclear weapons or keeping the nuclear option open, to a complete reliance on the nuclear guarantee of a nuclear weapon country.

Classification according to this continuum does not correspond with the differentiation between large and small, as may be seen by comparing Israel and the Netherlands.

These two nations are at extreme opposite points of this range, even though both have the capability of producing nuclear weapons. Some countries which practise a policy of nuclear abstention can nevertheless be involved in nuclear problems by being the object of nuclear aggression or blackmail, by membership in an alliance with nuclear allies, by the stationing of nuclear weapons on their territory, or by membership in an organization of nations striving for a distinct identity in nuclear affairs. The last case applies to the Netherlands. In this paper I shall analyse how the Netherlands, as a non-nuclear country, behaves vis-a-vis the nuclear problems they are involved in because of the abovementioned factors.

II. There is a great deal of agreement among the authors of Netherlands foreign policy as to the constant factors which determine both the style and the actual orientation of that policy. The approach to international problems is legalistic and moralistic, rather than in terms of the balance of power like most of the big European countries. In addition this policy is characterized by the priority given to economic interests, a natural preoccupation for a country which depends so very much on international trade for its prosperity. Trade flourishes in an international climate in

which law and order prevail and which is based on an international legal order and a respect for moral principles.[3]

Because of her maritime tradition resulting from her geographical position, the Netherlands' policy is oriented towards the Atlantic, instead of in a more continental direction towards Europe, as is the case in most large European countries.[4]

After the Second World War Netherlands foreign policy was findamentally reoriented---mostly in 1947-48---with a shift from voluntary neutrality to alignment.[5] It was an alignment which was determined in the first place by the bipolar structure of the international system, within which a small country had to adapt to the dominating relations between the big powers of the time. On the other hand this alignment agreed in various ways with recognized tendencies in the external relations of the Netherlands: NATO, and especially cooperation with the U.S. within that framework, has since then formed the basis of Netherlands foreign policy. A natural symbiosis, as it were, was formed between the maritime, Atlantic-oriented trend and the preference for a legalistic-moralistic style in foreign policy, which was also found in American foreign policy. As Van der Beugel

said, "The course changed, much of the attitude remained."[6] This Atlantic orientation of Netherlands policy has hardly been challenged since then, neither by Parliament, which on November 21, 1968 rejected a motion by the Pacifist Socialist Party that the government leave NATO by 121 votes to 5[7], nor by public opinion, as was evident in a poll by the Socialist Broadcasting Company which showed 85% of the population in favour of continuing the Netherlands' membership in NATO.[8] Although the new orientation in Netherlands foreign policy can be well explained by the post-war situation in Europe, one should take the new nuclear situation into account in explaining the continuation of this orientation. In an exclusively conventional situation it would probably not have been possible for the European countries to bring about an equilibrium with the Soviet Union, since this would have required the permanent presence of too large an American army. But through nuclear weapons the U.S. can be permanently involved in Europe in spite of an ever decreasing army, which now is the physical evidence of the American nuclear guarantee to West Europe. The nuclear weapons came at a natural moment in the evolution of international relations. The scope of the weapons adapted itself to the framework of interests such as had developed, and which was evident in

the decisive interventions of the U.S. in both world wars when they temporarily brought conventional armies to Europe. In principle, nuclear weapons have made the geographical extensions of alliances unlimited, as long as the nuclear guarantee is credible. The American guarantee of her security is not only the basis of Dutch foreign policy but is also the determining factor in the Netherlands adaptation to the nuclear environment.

If it is true that Dutch foreign policy is determined by the bipolar, nuclear structure of the international system on the one hand, and on the other hand reflects the constant factors determining the style and orientation of this policy, the same policy can be expected to continue through the 1970's, if the NPT succeeds in freezing the nuclear status quo in Europe. In the following we shall try to identify a number of basic factors of Netherlands politics on nuclear problems, and within this framework the Netherlands attitude towards the effort to check the spread of nuclear weapons will be analysed. Two observations should be made beforehand:

1) As the challenge to the bipolar, nuclear structure, which has characterised the world since 1945, manifested itself in the sixties, only the Netherlands policy for the decade

1960-1970 will be studied. This challenge was created by the spread of national nuclear capabilities under the impact of economic and technological developments and by nuclear nationalism, as reflected in the national nuclear armament of France and China who were willing to reduce or break their alliance commitments, and in the deliberate development or maintenance of the nuclear option by such nations as Israel, India and South Africa.

2) The analysis of this policy is mainly based on the discussion of nuclear problems in the Netherlands Parliament, as it appears in government documents and the Proceedings of Parliament.

III. When the Netherlands accepted NATO as the basis of her foreign policy she also embraced the philosophy of the Atlantic defence efforts. A representative excerpt from 1961 outlines the elements of this:

> "It is only thanks to NATO and the defence cooperation it realised that the individual nations could find the required confidence to bring the considerable sacrifices which were necessary for the building of a reasonable defence against the serious Russian threat. In the first place the Netherlands Government is convinced that in the light of the threat experienced the national existence of the Netherlands people and the security of West Europe in general can only be safeguarded by an alliance as strong as possible with

> the U.S., by virtue of which the latter country becomes permanently invovled in the West European defence. In the second place it is also strongly convinced that, because of the extent of the threat experienced and the scientific and financial consequences of the modern armament, a national Netherlands defence effort can only have sense and effect as part of an integrated allied armed force, which is adapted to the requirements of the present moment. The NATO fulfills both conditions and for the Government the NATO is therefore the pivot of the Netherlands foreign policy."[9)]

There are few indications that public opinion, parliament or the government want to question the basis of NATO policy, even though there has been a more critical attitude towards western defence in the Netherlands in recent years. Those who reject NATO and the balance of power based on nuclear weapons still keep themselves outside the scope of any discussion on Netherlands foreign policy. There is considerable consensus on this aspect of the policy, and individual critics are not supported by any effectively organised group, major political party or pressure group.

In a report on nuclear armament, issued on July 3, 1962, the General Synod of the Dutch Reformed Church pronounced a radical "no" against the use of nuclear weapons, even as retaliation for a nuclear attack. (This "no" did not apply to the possession of nuclear weapons.) Although ca. 30% of the population belongs to this church, it is typical of the situation that none of the big political parties---even the Christian Democratic parties which are connected with it---

supported this pronouncement.[10] The Netherlands finds the theoretical justification for her participation in NATO in the theory of the balance of power, and she accepts nuclear weapons in the nuclear situation as an indispenable element:

> "The Government accepts nuclear weapons as part of the Western defence and continues to consider those weapons, together with the inherent means of delivery, as an indispensable deterrent."[11]

This "deterrent" has to be credible in all aspects, so that any doubt about the continuance of the military balance is avoided.[13] From the rejection of the denuclearisation of Europe by the Netherlands, it also appears that the Dutch government had made the maintenance of the nuclear balance of power in the world the highest directive of its foreign policy. The plans offered by Rapacki and Gomulka were rejected by i.a. the argument that the opposition of the two blocs had brought about a decrease rather than an increase of tension.[14] Neither could the government back Sweden's resolution 1664 (XVI), December 4, 1961, in the General Assembly of the United Nations, which suggested an agreement on the prohibition of the stationing and storing of nuclear weapons in non-nuclear countries, because it could "especially in Europe, seriously affect the present balance of power and could be detrimental to the interest of one of the parties."[15]

Though the Netherlands endorses the effort towards general and complete disarmament, the nuclear balance has to be maintained, and the partial and collateral measures to it should be tested. The government supported the effort to stop the spread of nuclear weapons, for the very reason that this was a danger to the stability and balance in the world, and it recognized this as the most urgent arms control question in the world.[16)]

This identification with the NATO doctrine and the balance of power as the best guarantees for peace has hardly been influenced by the changes in the international system during the sixties. It will also be the frame of reference for Dutch foreign policy in the eighth decade of this century, as outlined extensively in the 1968 Memorandum on the Policy Concerning NATO and Defence Matters. It also means that there are no changes in the basic elements of this policy on nuclear problems. These can be summarized as follows:

1) The Netherlands does not desire either the acquisition of a national nuclear force or participation in particular forms of collective ownership of nuclear weapons.

2) They do not want the independent decision on the use of nuclear weapons or participation in the use of atomic weapons.

3) The Netherlands relies entirely on the nuclear guarantee given by the United States through NATO for her security. The power to decide the use of the nuclear weapons of the alliance should rest entirely with the President of the United States. This attitude implies a rejection of the existence of national nuclear powers within the alliance, and of a European nuclear force not integrated with the American force.

4) Out of political considerations the Netherlands does consider desirable consultation and participation in the planning concerning nuclear weapons, such as has been realised in the NPG and the NDAC.

5) The Netherlands is against the proliferation of nuclear weapons and regards measures to control this spread as most urgent.

The Netherlands does not wish to produce her own nuclear weapons, although she has the capability to do so. Unlike the situation in other small European countries like Switzerland and Sweden where there has been a great public discussion on the acquisition of tactical nuclear weapons, the possession or production of such weapons has never been discussed in the Netherlands. There have only been the declarations of the Minister of Foreign Affairs, Mr. Luns, that

the Netherlands does not intend to produce nuclear weapons[17] and "...that the Netherlands Government has no independent decision powers on the use of nuclear weapons and does not strive for these decision powers."[18] The absence of a discussion on these matters can be explained by the integration of the national defence efforts in NATO, and the complete confidence in the nuclear guarantee of the U.S. Neither is there any, or hardly any, discussion of the credibility of the guarantee in relation to America's own vulnerability. "The Government does not doubt that the U.S. will use, if necessary, any possible means for the defence of the whole territory of the treat."[19] Dutch policy is hardly influenced by the way the American government makes this guarantee effective within the framework of different possible nuclear doctrines. The replacement of the doctrine of "massive retaliation" by the doctrine of "flexible response" did not give rise to any serious resistance, such as occurred in West Germany, even though the interests of both countries---i.e. excluding the possibility of their own territory being the battle theatre and limiting the need for conventional troops---are to a great extent similar because of their comparable geographical positions. One author explained the

Netherlands passivity in these matters by the fear of being put on a par with Germany.[20)]

Our support for having the decision-making on the use of nuclear weapons completely centralized with the American President is based on our complete confidence in the willingness of the U.S. to defend West Europe with nuclear weapons if necessary. It is the view of the Netherlands that the nuclear defence of Europe should be left entirely to the U.S, and that every encroachment on this undivided power would affect not only the credibility, but also the effectiveness of the American should nuclear weapons have to be used. On January 9, 1963 State Secretary for Foreign Affairs Van Houten declared, "The Netherlands Government does not object if in fact the nuclear deterrent and the power to use it remain an American monopoly."[21)] Hence, the U.S. should have and maintain a veto on the use of the nuclear weapons of the Atlantic alliance. This belief plays a strong role in Netherlands policy concerning the non-proliferation of nuclear weapons. The discussion in the Netherlands on an Atlantic nuclear fleet was based on the understanding that the U.S. would maintain their veto on the use of nuclear weapons, even though it was reported in 1963-64 that members of the American government said that the possibility was open for a transfer of that decision to the European participants.

The Dutch view was that only if the decision to use nuclear weapons could be taken without the consent of the existing nuclear countries would it constitute proliferation. There still remained the possibility of forming a multilateral fleet in common ownership with a number of countries while America still retained her veto on the use of nuclear weapons, which was fiercely rejected by the Soviet Union. The desire to centralize the decision making on the use of nuclear weapons rejects the existence of other national nuclear powers. In a statement backed by the major parties Mr. Luns said that he would be pleased if England (and implicitly France) would renounce her nuclear weapons.[22] Although formally England can decide independently on the use of her nuclear weapons, he stated firmly that England would not use her weapons outside NATO, and that within NATO nuclear weapons would be used only with the consent of the American President.[23] In addition, the Netherlands Parliament has repeatedly emphasized that the abandonment of national nuclear armament in Europe would facilitate the solution of the German nuclear problem by complete military-nuclear integration in NATO, and would also end the discrimination against Germany, which many parties in Holland

consider undesirable.[24] Since the Dutch people are strongly suspicious of West Germany's military ambitions, the Netherlands is definitely against any nuclear armament of this country, even under the cover of an Atlantic nuclear force. The Government of the Netherlands declared that the extent to which Germany obtained a say in nuclear "hard-ware" would negatively influence its willingness to participate in such an arrangement.[25] When the NLF plan threatened to be watered down to a bilateral agreement between the U.S. and Germany the Netherlands declared herself against it.

These considerations imply a certain image of the nature of the international system which offers the best guarantees for the maintenance of peace. In the nuclear age peace is best guaranteed by a bipolar balance of power, in which the U. S. and the Soviet Union have exclusive powers to decide on the use of nuclear weapons. This point of view is dictated by utilitarian considerations, i.e. the credibility and effectiveness of the nuclear deterrent as far as the West is concerned, and not by any moral aversion to our sharing in the nuclear defence. The Netherlands has accepted her NATO obligations concerning nuclear tasks, as well as the stationing of tactical nuclear weapons and

the nuclear policies of NATO. The Netherlands' policy on the most urgent problem of nuclear arms control in the sixties, the prevention of the spread of nuclear weapons, was inspired by this image of the nuclear system. The Netherlands wholeheartedly supported the efforts of the U.S. and the Soviet Union to maintain the bipolar nuclear structure against possible challengers, as expressed in the limited nuclear test ban treaty of 1963 and the NPT of 1968, as well as the efforts to maintain the nuclear balance between each other through SALT, although the latter was never made a condition of the former.

IV. The control of the spread of nuclear weapons has always been given great importance in Dutch policy, especially since 1965 when certain demands by Western European countries concerning the substance of a non-proliferation agreement threatened to frustrate the Soviet-American approchement. Nuclear technology has made it necessary to seek solutions to many problems of disarmament and arms control in a world-wide treaty, to which regional solutions must be subordinated. The necessary, universal context for the regulation of the problem of the spread of nuclear weapons is determined by two circumstances:

1) the range of nuclear weapons and their means of delivery is universal; the repercussions of their use will be felt throughout the international system, while the competitive involvement of the U.S. and the Soviet Union in different parts of the world makes regional conflicts liable to nuclear escalation;

2) on the other hand, the spread of nuclear technology and materials all over the world in the context of peaceful applications of nuclear energy and the importance of this in the economic development of all countries has resulted in greater and greater demands for a policy to control the spread of nuclear weapons. The necessary universal framework for the solution of this problem is also determined by the fact that more and more countries have become self-sufficient in nuclear matters, while international trade in nuclear materials and reactor technology is growing. Since a non-proliferation policy demands sacrifices by non-nuclear countries, it is most realistic to ask these of all non-nuclear countries on an equal basis.

The danger of the proliferation of nuclear weapons among nations first originated outside Europe. Nevertheless, European nuclear problems dominated the non-proliferation

debates to a considerable degree. The demands made by Western Europe were not in accordance with some basic considerations of the non-proliferation policy, such as universality and non-discrimination among non-nuclear countries. These demands were:

1) the recognition that certain forms of alliance cooperation in nuclear matters would remain possible, which concerned proposed NATO arrangements,

2) the maintenance of the possibility of the establishment of a European nuclear force, and

3) the protection of the exclusivity of the Euratom safeguards system within the territory of the European community.

These conditions were especially advocated by West Germany and Italy, whose point of view differed considerably from that of the small West European countries, notably the Netherlands. We wanted to subordinate these demands to a policy aimed at creating a universally acceptable non-proliferation treaty. In summary, while the incentive for an active non-proliferation policy resulted from the dangers of the spread of nuclear weapons outside Europe, the preoccupation with regional European interests considerably delayed the acceptance of a universal non-proliferation agreement and even

endangered it. Secondly, the claim of special consideration for these interests was not related to the purposes of a non-proliferation agreement but was inspired by the wish not to endanger a distinct European identity in nuclear matters.

With regard to these claims, Dutch policy has always been inspired by the recognition of the greater priority for an agreement on the non-proliferation of nuclear weapons and by the constant factors of adaptation to the nuclear environment. We will deal with this in more detail when studying the controversies over the MLF, the European option on nuclear weapons and the position of the Euratom control system in a non-proliferation agreement.

The controversy over how far certain forms of "nuclear sharing" in NATO were compatible or incompatible with a policy of non-proliferation delayed real progress on an agreement for several years. Three sorts of nuclear arrangements can be distinguished:

a) the U.S. or other nuclear countries share part of their nuclear weapons with a mixed association of non-nuclear and nuclear countries, and the latter renounce their veto on the use of nuclear weapons;

b) the same arrangement in which the nuclear countries keep the veto on the use of nuclear weapons, and hence the emphasis is on common ownership and control of nuclear weapons;

c) purely consultative agreements in which the non-nuclear countries participate in the planning of nuclear matters.

The Netherlands did not seek any participation in the decision-making on nuclear weapons nor consider this desirable for other countries. Her approach to the nuclear arrangements within NATO was based on the fact that the decision to use nuclear weapons should rest unconditionally and totally with the American President, since this was the best guarantee for the credibility of the nuclear commitments. At the time the first version of the MLF plan, which left open the possibility of transfer of the veto, and according to which the American non-transfer article of the draft non-proliferation treaty of 1965 was formulated, was discussed the government stated:

> "...the transfer...of a part of American nuclear planning and responsibility to the multilateral project is contrary to an efficient distribution between the allies, especially in the light of the existing necessity to strengthen the conventional element in NATO defence, on which the European countries should concentrate more."[28)]

The Netherlands did declare herself willing "to study... the political opportunity and the practical possibilities"[29)], because she recognised the political advantages of the plan: stronger ties of the U.S. and England with Europe, the prevention of the development of independent nuclear powers, a preemption of German irritation over unequal status in nuclear matters, and the possiblity for Europe to get more into line with the U.S. technologically and industrially.[30)] The Dutch did participate in the MFL discussion in the so-called Paris working group of NATO and in the experiment with a mixed crew on the "Claude Ricketts".[31)] All this, in addition to positive statements on the NLF by Foreign Minister Luns outside Parliament[32)], suggests that in the last instance the Netherlands would still have been willing to participate, especially since the Christian Democratic parties in Parliament favoured the plan.[33)] However, a certain evolution is evident in Dutch views. As a result of a change of government in the spring of 1965, which brought the Socialists to power, (Mr. Luns

was seconded by the Socialist Van der Stoel), and by the realisation that the MLF plan stood in the way of any early agreement on the non-proliferation of nuclear weapons, the government proceeded to emphasize that a non-proliferation agreement should have priority over the nuclear arrangements in NATO.[34] This was clearly stated in the Second Chamber for the first time in December, 1965.[35]

But the Netherlands government did accept an arrangement providing for the right of veto on the use of nuclear weapons by the nuclear powers, hence providing for common ownership and control of nuclear weapons. It did not consider such an arrangement contrary to a non-proliferation policy. As State Secretary for Foreign Affairs Van der Stoel said on October 21, 1965 in the U.N. :

> "...an arrangement for nuclear sharing in the Atlantic context is in no way contrary to, or conflicting with the principle of non-proliferation, provided that those weapons cannot be used without the consent of existing nuclear powers---in other words: as long as there are no additional fingers on the trigger."[36]

The Russians objected to MLF constructions which gave non-nuclear countries physical access to nuclear weapons---a situation they maintained which could lead to the use of nuclear weapons by these countries with the consent of a

nuclear country[37] or to abuse because they might not heed the veto.[38] The Netherlands, however, did not wish to participate in these arrangements, so it was easy to back the new American plans proposed in the course of 1965 to improve consultation and planning concerning nuclear weapons. These were also supported by Parliament.[39] The Netherlands and Belgium are now alternating members of the Nuclear Planning Group (NPG), changing every two years, but both countries are permanently involved with ambassadors and staff in the preparation for the ministerial meetings of the NPG. Originally the NPG was conceived of as a small committee of five countries; the four big members of NATO plus one small country which would alternate. Amendments to this scheme were made on the initiative of Canada and the Netherlands since the first arrangement could have led "to a degree of discrimination...which is no longer compatible with the principle of equal rights in the Alliance".[40] Participation in the consultation and planning about nuclear weapons is more in accordance with the Netherlands nuclear policy than is participation in the decision on the use of nuclear weapons or in the physical ownership and control of the same. An American author was correct in concluding that, "Consultation within NATO has been the

Dutch method of compensating for being small and lacking any automatic claim to a special relationship within the United States".[41)]

Lacking any incentive to create a national nuclear force, the Dutch consider only one alternative to the complete reliance on the American nuclear guarantee: the creation of a European nuclear force. If we assume that the Dutch accept the NPT as a framework for their adaptation to the nuclear environment---a reasonable assumption---then a European nuclear force can only come into being when Western Europe is unified politically, according to the American interpretation of the non-transfer article of the NPT.[42)] On the other hand, the NPT does not allow any form of cooperation between nuclear countries and non-nuclear countries other than consultative arrangements. In any case, the physical participation of non-nuclear countries in the ownership and control of nuclear weapons is excluded, as is their participation in the decision-making on the use of nuclear weapons. This situation wholly corresponds with the Netherlands wishes in this field. The Netherlands rejects any pre-federal European cooperation in nuclear matters in which existing nuclear countries give up their veto on the use of atomic weapons

and the decision to use these weapons can be taken by a majority of non-nuclear countries. The objective of the American amendments of March 22, 1966 to her draft treaty of August, 1965 was the exclusion of any construction in which the U.S. would renounce her veto on the use of nuclear weapons brought into a framework of multilateral nuclear cooperation, but they did not exclude the possibility that other nuclear countries like France and England might bring their complete arsenal into a mixed association of nuclear countries in which the use is decided by the majority.

This last exception was related to pre-federal forms of European nuclear cooperation in which England and France would participate. The American amendments were discussed in the North Atlantic Council in the spring of 1966. At that meeting the Netherlands stated that she considered the creation of a mixed nuclear association "in which a decision to fire nuclear weapons could be made by a majority of non-nuclear weapon states out-voting the nuclear weapons members of the association"[43] to be contrary to a non-proliferation policy. The Netherlands preferred the drafting of the non-transfer article as follows: "Not to transfer nuclear weapons into the national control of any non-nuclear weapon state, or into the control of any association of states".

The Netherlands equally rejected an independent European nuclear force: "An effective defence of Europe is only feasible in Atlantic terms. The formation of an independent European nuclear force would be contrary to this idea and is hence rejected by the government."[44] Over the course of the years the government has forwarded a great number of arguments against such a nuclear force. The formation of a really effective European nuclear force would cause strains in the cooperation with the U.S.[45]---a basic argument from the point of view of the Netherlands government which places so much emphasis on the American nuclear guarantee. If a European nuclear power could function as the trigger which could involve American nuclear power (even against her will), it could lead the U.S. to sever her alliance commitments.[46] In addition the Netherlands has always rejected political and military blocs within NATO---even a military association of the six EEC countries.[47] Also, the creation of a European nuclear force would mean a far-reaching intensification of the military effort[48] and would have a negative impact on the effect of arms control and better East-West relations.[49] Such a European nuclear force is not considered credible in Holland because West Europe, with its population density and industrial

concentrations would be an all too easy target for enemy missiles,[50] although this argument is unsound within the context of the present "counter-city strategy".

But the Netherlands has never excluded the possibility that an integrated Europe could have a nuclear force integrated with the American power, so that the alliance with the U.S. would not be jeopardized.[51] However, it is doubtful if the integration of a European nuclear force with American nuclear power could be realised on any basis other than that of subordination, and at the same time not only the condition of European but also of Atlantic integration must be fulfilled.

The Netherlands government recognises that the creation of a European nuclear force is a purely academic question, so one may conclude that from the practical point of view the Netherlands rejects the creation of a European nuclear force ---a position which has the support of the major parties in Parliament. The Netherlands did not press, as did West Germany and Italy, for the maintenance of the so-called European option clause in the NPT, which would have enabled Europe, once it unified, to build its own nuclear force. In any case, this option could only have been realised under the very limited conditions mentioned above.

Of all the nuclear problems, the Netherlands has given the highest priority to obtaining universal regulations to control the observance of the peaceful use of nuclear materials. There was a question of if and how much the regional control by Euratom could inspect this obligation within the six Community countries. In the beginning two standpoints were diametrically opposed to each other. On the one hand there was the view of the Soviet Union, which characterized Euratom as a "closed organization of West Germany's allies in the military NATO bloc".[52] Even in December, 1967 they declared that there should be a "single system of control for all non-nuclear states",[53] to be realised in the IAEA. On the other hand there was the original position taken by West Germany and Italy, with the support of the Euratom Commission (later the European Commission), who wished to maintain the exclusivity of Euratom control within the Community , so that the IAEA could not have any direct control on Euratom territory. This demand for recognition of the Euratom control system on an equal footing with the IAEA control gave rise to opposition in the ENDC, from non-aligned as well as Communist countries who advocated the principles of universality and uniformity of international control, which in themselves implied rejection of the Euratom inspection in

favour of the IAEA safeguards.

The Netherlands has never backed the arguments which were given so very often, notably by West Germany, that the admission of IAEA control within Euratom would mean the end of the common market for nuclear materials and would expose the European nuclear industry to international espionage. The Netherlands emphasized the central aspect of the credibility of a control system, and her policy has been aimed at breaking the exclusivity of the Euratom control to give priority to the IAEA control system. At various times the Dutch government pronounced itself in favour of an effective, world-wide control system. Although the Netherlands was certainly not in favour of breaking down the entire Euratom control system,[54] she felt the essential factor for the credibility of an inspection arrangement to other countries was the acceptance of physical inspection by the IAEA of the observance of the obligation itself within the Euratom territory. She declared that the NATO countries must agree to at least what they would demand of other regaions, such as Eastern Europe.[55]

A Dutch author expressed it as follows; "...third states ...cannot be expected to accept a community self-inspection by a group which is apparently interested in keeping its

its nuclear option open..."[57] The emphasis on the integrity of the Euratom control system could also lead to a proliferation of regional control systems,[58] while a credible arrangement for inspection under the NPT could set a precedent for future regulations in the field of arms control.[59]

The Netherlands position on the appropriate relation of Euratom and IAEA safeguards, which she has actively promoted in the European Community,[60] can be summarized in four points:

1. The IAEA should function as the central instance of control.[61]
2. The IAEA should have a real possibility of exercising control, which would mean that the IAEA should not only be informed of the methods of Euratom control, but should also exercise control over the observance of the non-production obligation itself.[62]
3. This real possibility of control should be given substance by common inspections by Euratom and IAEA within Euratom territory, which is "technically feasible and equally desirable politically, in order to make the verification by the IAEA credible and acceptable in the eyes of the other parties to the treaty."[63]
4. The relation between Euratom and IAEA should be laid down in a verification agreement which should establish the modalities of the control and which may not be contrary to

the bases of cooperation within Euratom and which would avoid duplication and adminstrative problems.[64]

The priority the Dutch government had given to IAEA has found expression through the years in the effort to strengthen the position of the Vienna organisation by, on one hand, broadening the field of its activities, and on the other by proposing to admit IAEA control within the territory of the Community. Its policy was motivated by the interest in counteracting the spread of nuclear weapons and in establishing an effective international inspection system.[65]

V. The way in which the Netherlands has adapted herself to her nuclear environment can be characterized as "qualified abstention": she rejects a national nuclear armament but accepts the nuclear guarantee of an ally. The broad framework of her policy has been determined by the bipolar nuclear structure of the international system for more than two decades after the Second World War, but there is good reason to suppose that in future this policy will be more and more determined by the agreements between England, France and West Germany on European political problems, including the nuclear defence of Europe. Should this lead to a European nuclear force, it could mean the end of the American nuclear guarantee for Europe's security, since the U.S. would no longer be able to

organise the Western defence on its own terms. Dutch policy would then be confronted with a dilemma! to participate in these argeements or to return to a policy of neutrality. The policy in nuclear affairs is aimed at avoiding this dilemma. Theoretically it is based on President Kennedy's dumbbell concept , which has already been superseded, according to which "...a unified Europe will be able to come to full development and hence will be able to give a more valuable contribution to the development of the world, within the broader framework of an Atlantic Community, in which North America and Europe will be able to act as complementary partners on the basis of complete politico-economic equality and coresonsibility".[66] However, both the intellectual consistency and practical feasibility of this concept are seriously questioned in Holland.

On the level of practical politics the Netherlands is striving for an Atlantic defence system, in which the decision on the use of nuclear weapons rests with the U.S. and the European allies are involved in consultations on the nuclear defence of their territory. As Russell concluded; "The Netherlands has striven for a nuclear defense system which places the United States alone in the first category and puts the remaining alliance members on a virtually equal plane in the second rank."[67]

The two parameters which will determine the Netherlands policy in the seventies are the continued trust in the nuclear guarantee of the U.S. and the NPT. "The Government is still of the opinion that the effort to prevent the spread of nuclear weapons implies that the nuclear defence of Europe should be placed within the Atlantic Framework, based on the nuclear guarantee of the U.S."[68] That is why the government has always emphasized the open character of the European Community and rejected any bloc formation within NATO, such as an independent European nuclear force. Rather they advocate the Special Committee of as many countries as possible to regulate nuclear matters within NATO, and the choice of consultative arrangements in which all allies could participate on an equal footing; "...for a successful solution of the problem of nuclear sharing (it is) of the greatest importance .... that an element of real co-decision of the European allies is realised with regard to the totality of nuclear planning and strategy of the alliance."[69] If the creation of a European nuclear force integrated with the U.S. is not possible, the

Netherlands would probably come to the conclusion that "as a permanent solution a strong alliance in the nuclear field of the U.S. with a number of individual European powers would be by far preferable to the blind promotion of the unification of a rump-Europe which could follow an obstinate policy."[70] One does not necessarily need to agree with a foreign policy closely allied to the United States to recognize that this has been the basis of the Netherlands position in nuclear matters and is supported by a broad consensus in the Netherlands.[71] The Netherlands has been positive towards an agreement to prevent the spread of nuclear weapons from the first drafts and emphasized that the treaty does not necessarily hinder the technological development of countries which renounce the production of nuclear weapons, the possibilities and objectives of Euratom, nor the peaceful use of nuclear energy.

Both the American nuclear guarantee and the NPT could disappear, over a period of time, as guides for the nuclear policy because of developments beyond the influence of the Netherlands. Should that occur the Netherlands would be forced to redirect her policy, but she is not prepared for any reorientation at present.

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The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 6 1971

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SWEDEN: A NON - NUCLEAR WEAPON STATE

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971
Klekken Hotel, Norway

MINISTRY OF DEFENCE

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11.3.1971

Sweden - a Non-Nuclear Weapon State.

Draft paper submitted to the Conference on the "Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States" 9-13 March in Klekken, Norway.

Sweden frequently appears in close-to-top positions when threshold nuclear weapon states are listed. The reason is mostly a general appraisal of its technological and industrial capabilities rather than an analysis of its defence requirements. Also important is the fact that the need for a Swedish nuclear strike force was in the late fifties and early sixties strongly advocated by powerful political and military groups, However, on 9 January 1970 Sweden deposited its instruments of ratification of the Treaty on Non-Proliferation of Nuclear Weapons (NPT) and is thus bound to stay non-nuclear.

The fact that it lasted 17 month from signing the NPT (19 Aug 1968) to ratification has in some places abroad been interpreted as due to an hesitation on the part of the Swedish goverment wether to acced to the NPT or not and that in the final decision political arguments in favour of the NPT were given priority to military arguments which, however, were very valid in their own merit.

One purpose of this paper is to show that that conclusion is erroneous.

The decision to abstain from a national nuclear strike force was not made when an evaluation of the NPT for political reasons could not wait any longer, Instead, it was gradually and silently made as a consequence of an evaluation of the strategic doctrines of surrounding power-blocs years before a formal decision on the NPT had to be made.

The debate wether Sweden should have the bomb or not, originally starting on the day of Hiroshima, reached a level of political significance in 1954. The issue stayed in the focus until 1962 when it started to fade out. In the mid sixties it was almost politically dead. The number of arguments for and against a Swedish bomb is impressive. It covers questions of foreign relations and strategy, costs, research and development, risks involved in testing, and idealistic, pacifistic and moral aspects. The political parties were mostly split on the question and a "ban-the-bomb" movement was organized.

A few facts are basic. Sweden is a non-aligned country. This ruled out sharing of nuclear weapons with other nations or buying nuclear weapons abroad. The latter was also ruled out by the attitude of the nuclear powers. Domestic manufacture would be the only way to aquire the bomb. All aquiring in favour of a Swedish nuclear force assumed a tactical weapon to support the resistance against invasion across the borders or over the sea.

An independant strategic deterrence was disussed but never seriously proposed. In the tactical context it is quite clear that the Swedish armed forces would be greatly more able to cause damage to an invador if equipped with nuclear weapons than without. The doubts were based on considerations of alternative costs and of the great power-bloc's doctrines.

There is no question that Sweden absolutely speaking will be able to manufacture a nuclear weapon independantly. The two basic factors, domestic uranium and an advanced nuclear technology, are there. Testing in Sweden both in the atmosphere and underground would be possible without radioactive risks to the population. Available capacity for research and production would, however, restrict a nuclear weapon program to one type of warhead. In addition, the tactical concept did not make special means of delivery necessary. The existing light bombers would do.

In the late fifties the political debate over the nuclear issue was lively and emotional. It resulted in 1959 in a compromise decision of the Swedish goverment to the effect that there would be no crash-program for production of weapon grade fissionable material and no research effort to design and test a warhead. Instead a possible military production of plutonium should be linked to the civil nuclear reactor program. This made possible a postphonement of the final decision to go nuclear by several years until the civil program was further developed, without loosing time if the final decision was to be positive or loosing money if it was to be negative. A coordination of the civil and military programs was also supported by economical factors. This was the content of what was called "the nuclear option policy".

On the research side the effort was limited to a study of possible measures to protect the country against nuclear attack, also including a general review of bomb design necessary to make an assessment of possible nuclear weapons deployment against Sweden. This latter program would also provide information of importance for a possible manufacture of a Swedish bomb.

In the fall of 1962 the Secretary General of the United Nations circulated a question to the non-nuclear member states on what conditions they would be willing to abstain from aquiring nuclear weapons and join into a "non-atomic club". The club had been suggested in the General Assembly by Sweden's foreign minister Mr Undén. The Swedish goverment replied positively, however, on several conditions: its position was valid throughout 1963 only (it was later prolonged), that the nuclear powers agreed to a test ban, that a number of states in Europe also agreed, and that a nuclear attack or blackmail would invalidate the basis for the Swedish position.

On 12 August 1963 Sweden signed the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water. It was understood that this would limit the possibilities to develop a Swedish bomb "somewhat" while not severely, and that the nuclear option policy in a formal sen e would be only marginally influenced by the treaty.

The expected development of the civil nuclear program had indicated that by 1965 "the Decision" had to be taken if time was not to be lost. However, approaching that time

many people wakened up only to find that the whole basis for the nuclear option policy had been changed. The civil program was considerably delayed. The "Swedish style" natural uraniumheavy water reactor concept had been exchanged for a enriched uranium-light water model under the pressure of concrete economical facts. But enriched uranium was available only from abroad and only upon the condition of exclusive peaceful use. A reprocessing plant for plutonium extraction had not been built. It was clear that a coordination of civil and military nuclear production was no longer a practical path to the bomb. Instead of approaching the day of Decision, Sweden pushed a constant estimated seven-year period of research and development ahead of every day the Decision was not made. A number of economically motivated deviations from a line of development of the civil atomic power program compatible with a military co-production had practically speaking over the years almost added up to a "silent No" to the Swedish bomb and postphoned the first possible deployment into the mid seventies. This development is not uniquely Swedish. All countries but France have taken the same steps.

However, the expressed No to the bomb codified in Sweden's adherence to the NPT was not a result of an industrial situation but an analysis of the strategic position, economical resources available and the requirements of the national security. The Swedish defence policy is based on a few assumptions. One is that the European theater for the foreseeable future will be dominated by two major blocs, NATO and the Warsawpact, with partially contradicting interests and in general balance of military power between each other. Sweden is a small country and cannot influence this situation. Sweden is furthermore in itself of no value to either of the blocs, but access to Swedish

territory may in time of crisis be of value for one of the blocs in its actions against the other bloc. Each bloc will thus be able to mount marginal forces only against Sweden as its primary problem will be to match the forces of the adversary bloc. An isolated attack on Sweden with the full forces of a superpower is thus definitely unlikely.

The security goal of Sweden is to survive as a sovereign state. To achieve this goal Sweden has declared the intention to stay neutral to any military conflict in accordance with the Haag-conventions. To make this intention credible Sweden is a non-aligned state in peace-time and has a relatively strong defence. The strenght of the armed forces should be sufficient to deter an attack of any of the blocs using the marginal forces they may be able to allocate against Sweden.

It is also necessary to recognize the strong hesitation of the superpowers to escalate a conflikt to nuclear levels / and their interest to contain a conflikt on low levels (flexible response) by means of negotiations. Consequently, conventional force has been given increased importance, while nuclear weapons primarily are a political means for signalling an extreme determination to the adversary.

The relevant question is now wether nuclear weapons would increase Sweden's possiblilties to stay outside a conflict in Europe, given a reasonable level of defence expenditures. As shall be shown the answer is no.

As indicated above an agressor against Sweden will always be primarily concerned with the measures of his main adversary. If the main conflict is on the conventional level it is unlikely that an aggressor escalates to the nuclear level on the Swedish front and by that risks a nuclear counterattack from his main adversary on all fronts. If Sweden allocates all its resources available for defence to conventional forces, it may be able to deter a conventional attack or force the aggressor to use nuclear weapons. If the main conflict is conventional, the aggressor may abstain rather than escalate. If Sweden on the other hand allocates resources to a tactical nuclear force and by that less to the conventional forces, the latter may not be able to deter a conventional attack and Sweden may be forced either to give up or to escalate and by that attract a nuclear counterattack on itself in contradiction with its security goals.

If the main conflict has reached the nouclear level an aggressor may use nuclear weapons also against Sweden without risking anything in relation to his main adversary. But either he does use nuclear weapons for the attack against. Sweden or not,he must assume a risk that his main adversary directs a nuclear strike against his Swedish operation. Such a strike could easily be made orders of magnitude more impressive than any possible Swedish nuclear force could inflict, as there would be no shortage of nuclear weapons in the assenals of the two blocs.

The above reasoning also rules out an independant Swedish deterrent force. A french type "force de frappe" would cost so much that very little would be left to conventional forces and its capability would probably not be sufficient to deter a conventional attack. In addition development of such a force would take mcne than 10 years at

the end of which Sweden would be militarily weak in other respects and thus open to preventive countermeasures.

Thus, assuming continued dominance of the two blocs and a high nuclear threshold there would within any conceivable level of Swedish defence expenditure not be possible to gain sufficient priority for a nuclear force. Only if nuclear weapons would be standard equipment for smaller nations, this conclusion would not be valid any longer. This was precisely the decision taken by the Swedish goverment in the summer of 1968.after several years of investigation work. When the NPT was opened for signature the decision was already made.

In fact the NPT has limited relevance for Sweden's nuclear option. Its basis, an advanced nuclear technology and domestic uranium deposits will remain regardless of the treaty. The treaty permits a variety of preparations and research for manufacture of nuclear weapons except for test explosions. If Swedon would change its mind in the future and decide to go nuclear, it can withdraw from the NPT with three months'notice, while the time required from desision to deployment will be many years.

For Sweden the role of the NPT is rather to impose restrictions on other parties. Nuclear weapon states parties to the treaty are forbidden to provide both nuclear weapons and assistance in their manufacture to non-nuclear weapon states and all parties will undertake not to transfer nuclear material and equipment to such states except under safequards.

These provisions, intended to enforce restrictions on non-signa-

tories as well, will in fact have such a strong effect that they alone will make up most of the treaty. Only a very limited number of countries completely self-supporting in both uranium and nuclear technology will not be coverd, but possible nuclear defence ambitions will even for them be substantially more expensive and time-consuming to satisfy. It is therefore fair to say that the non-proliferation treaty is an international scheme for cooperative prevention of the spread of nuclear weapons rather than a treaty for the parties' unilateral abstention of their nuclear options. If the treaty is widely adhered to, there will be little meaning in being a non-signatory as foreign assistance will not be available.

During the negotiations on non-proliferation at the Geneva disarmament conference the Swedish delegation urged a complete stop on all international cooperation whatsoever in the manufacture of nuclear weapons in order to isolate the present national weapon programs from foreign assistance and supply. Such a measure would have a definite disarmament effect on the nuclear weapon states, for which the non-nuclear weapon states have argued for a long time as a balance to the surrender of their own nuclear options. However, the Swedish proposals were not accepted for inclusion in the formal text.

It is on the other hand reasonable to assume that on an individual basis at least the majority of non-nuclear weapon states will refrain from assisting or from being connected to any weapon program in nuclear weapon states.

But, as was pointed out in an appeal by Sweden in Geneva, when a formal provision to this effect is lacking it will be of fundamental importance for states which, like Sweden, recognize

the necessity of continuing their policies, primarily in the field of safeguards, to do so in a standardized manner, If most countries, including the main nuclear material suppliers, assume an informal "code of ethics" in these terms, it will definitely have a practical effect.

Also in the negotiations on the test ban has Sweden taken an active part. It has engaged in various control measures. In the case of the partial test ban it runs a program for surveiling airborne radioactivity in Sweden to asses the status of the treaty. Two "technical violations"(leakeges of radioactivity from underground tests) have been independantly established by this program. All results are published in the scientific litterature and thus made available to the world community. In preparation for a possible comprehensive test ban Sweden has set up an advanced seismic station and cooperates with other contries in establishing a world wide data exchange (detection club).

Assuming the analyses above and the success of the NPT, at least in Eurpoe, how should the Swedish defence be designed to meet possible conventional and nuclear attacks. And which levels of aggression are possible to contain in the main conflict and against us. Of course the conventional level is possible. Also possible is a conventional level where isolated nuclear weapons were exploded for the purpose of demonstrating strength. This will result either in de-escalation or in escalation to the nuclear level. As it seems almost impossible to achieve political control among the parties on any nyclear sublevel in Europe the nuclear level will include all use of nuclear weapons except for an intercontinental missile exchange involving population centra of the super-

power, which will constitute the top level.

Against Sweden methods of aggression involving nuclear weapons may include isolated explosives for the purpose of demonstrating strength, use of nuclear weapons against military targets and against population centra, provided of course that the main conflict has escalated to the nuclear level. In addition the aggressor may restrict his use of nuclear weapons in order not to counteract against his own operations.

It is clearly impossible to give the armed forces and the population sufficient protection to make them able to stand a nuclear attack i.e. to make such an attack unprofiable and by that less attractive. Should the maib conflict escalate to the nuclear level and such an attack be incurred on Sweden, then the long range security interests would have to be evaluated in the light of the immediate situation and the conflict will have to be solved by means of negotiation. It would then be essential that such protective measures have been undertaken so that armed defence can continue for a time-periode, which is long enough to permit proper organization of negotiations.

Finally a nuclear war in Europe, where Sweden is not involved, may cause radioactive debris in Sweden and make protective measures necessary.

The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 5 1971

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AUSTRALIA AND NUCLEAR WEAPONS

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971

Klekken Hotel, Norway

The Strategic Environment

The current Australian strategic debate is being conducted in an environment of unusual complexity. The nation's foreign policy and strategic decisions for the next decade must be taken in the light of forecasts about not just some but all the great powers. This is an unusual circumstance for a small or medium state. It seems unlikely that for defence planners in Sweden or Italy the defence postures of China and Japan are decisive matters; or that such officials in Poland or Korea find the Soviet-American involvement in the Middle East very high on their agendas. But Australian strategic planning must take into immediate account the defence policies of China and Japan, as well as of the Soviet Union and the United States, questions concerning the Suez canal and the Indian Ocean as much as developments in surveillance techniques and the defence aspects of the great powers' space efforts. The range of uncertainties in these matters is very large, This in turn accentuates the cautious and derivative elements in Australian policy-making, in the sense that policies depend upon developments elsewhere over which Australia has little or no control.

By contrast Australia's own defence exertions are primarily regional. Since Australian federation at the beginning of this century, security has been thought to depend upon the protection of a great power. Until 1942 that power was Britain, after that the United States. These relationships alone have permitted Australian governments to think in terms of sending

troops to Europe in two World Wars, to Korea and Vietnam. More recently, as great power protection has seemed to wane, Australians have concentrated their efforts in areas closer to home, where great power support was less likely to be available and where their own limited efforts could be most effective: peninsular Southeast Asia and the Indonesian archipelago. This, together with the character of disputes in the region has meant that potential troubles in New Guinea, the security of Malaysia and Singapore, Japan's position on the shipping routes through Indonesian waters, the Soviet presence in the Indian Ocean and the Vietnam war have all been thought to concern Australia not only more intimately but more urgently than questions of nuclear strategy.

Nuclear problems have therefore been, comparatively speaking, a minority interest. There have been officials and academics concerned with long-range strategic planning, groups concerned with power production, desalination and continental development, persons concerned with the direction and control of technical progress, including arms controllers and political groups which argue that in a world of uncertain allies and powerful enemies a small Australian population cannot forever safeguard its large and rich continent unless it secures the most advanced weaponry.

In general, discussion has ranged over four kinds of nuclear conflict in which Australia might be concerned. She might be involved in, or affected by, a conflict between some of the great powers, even without being the object of a direct attack. Australia could not, for example, remain immune in the event of a Soviet-American conflict. American stations

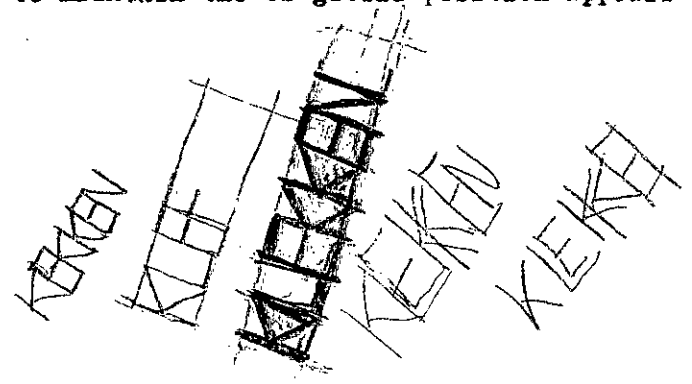
and facilities in Australia would be involved. Australia would have a part in the counter to any Soviet attack upon the US by southabout Fractional Orbital Bombardment Systems. Australian facilities would be involved in, and broad Australian interests profoundly affected by, any Soviet American naval clash in the Pacific or Indian Oceans. Or, secondly, Australia might herself be subjected to long-range attack or threat of attack. A Soviet-American conflict could easily include a Soviet strike, either by long-range weapons or by cruise missiles, against some American installations on Australian soil. Another possibility which has been discussed is that a China which had developed a first-generation ICBM force but confronted reasonably effective American anti-missile defences might threaten to retaliate against Australian cities in the event of a US strike against Chinese population centres. A third, and somewhat different kind of danger could be presented by an attack upon Australia's cities by cruise missiles from hostile submarines. It is not an implausible scenario. By far the greater part of the Australian population is concentrated in a few cities on the coast. The Royal Australian Navy could not hope to guarantee the nation against such an attack by adequately controlling the very large sea areas from which it might be launched. Such a threat might be posed either by the first-generation boats which a power like China might develop during the next decade or more, or by a second-echelon Soviet force, thus avoiding a commitment of first-line forces required to confront the United States. Fourthly, there is the question of protecting Australia against the possibility of a future

invasion attempt. However unlikely this now seems, it has been argued that Australia should not sacrifice the option of nuclear weapons so long as there is any possibility that numerically inferior Australian forces might one day need them to repel an invader. There is a fifth possibility which has not been widely discussed but lies in the logic of recent technical developments. Australian troops abroad might at some point find themselves fighting with or against a force possessed of small-yield tactical nuclears. Nor need such possibilities arise only in the region with which Australia is currently preoccupied. Given modern methods of communication and transport and what Albert Wohlstetter had christened the Illusion of Distance, the primary Australian concern for Southern Asia may itself be merely a phase.

Defence planners and arms controllers in Australia must therefore take into account a large range of political and strategic possibilities. The rise of Japanese military power will include a naval component which Australians are likely to regard with reserve. If the Japanese and Chinese positions on Taiwan and Korea prove incompatible, as seems likely, relations between them will have direct strategic repercussions in Southeast Asia and the sea routes between Australia and Japan. The evolution of relations between Washington and Peking will pose another set of problems. So will the development of a Chinese nuclear force and the strategic doctrines required for its deployment. The fluctuations of the Sino-Soviet relationship will directly affect the Soviet presence in and around Southern Asia and the Indian Ocean, Soviet plans in the Middle East and Chinese

attitudes to Southeast Asia. It is evident that among the more probable Australian security involvements are local conflicts, operations in support of the civil power in various parts of the Indo-Pacific, flag-showing deployments and other low-key affairs to which nuclear weapons are not relevant. Equally, some of the circumstances in which Australia might be affected by nuclear weapons now seem highly unlikely. Yet Australian planners, like others, face the awkward problem of lead-times. If the lead-time for the deployment of sophisticated weapons systems, whether by Australia or one of her potential rivals, is seven to ten years, it is dangerous to disregard the seemingly unlikely.

Amid these uncertainties the United States is a key factor. Though the American alliance remains the centrepiece of Australian strategic policies, it is not relevant to every Australian interest. Nor does it prevent divergences of view. Nor can it offer unconditional guarantees for particular future situations. The ANZUS treaty has been repeatedly reaffirmed. It is one of the few American treaty engagements which have not been seriously questioned in recent times. But, like any treaty, it involves ambiguities. Action under it, including nuclear protection for Australia, will depend upon the precise circumstances, and the mood of the moment, as much as upon the document itself. Such action cannot be clearly predicted. It is a commonplace that American strategic policies are undergoing important changes. Technical developments and budgetary stringencies play their part. In some important se ments of US opinion the will to maintain the US global position appears to have all but



collapsed. This mood has gone beyond disenchantment with Vietnam. It amounts to a deep suspicion of the entire political philosophy which has underpinned American efforts in the world since the Truman era. Among the disenchanted are precisely those establishment liberals who were formerly among the stoutest proponents of US engagement abroad. Many young people increasingly assume that the US faces no external dangers of any consequence, that this security is part of the natural order of things, and that military effort is at best a mere distraction from the country's more real and urgent domestic problems. There has even been a sustained attempt by powerful segments of the US political and academic communities to reduce US strategic power in relation to the Soviet Union. This has been undertaken in pursuit of a concept of "balance" and "parity" whose relevance to American domestic debates is clear enough but whose wider political consequences have been little examined and less understood. These developments offer no encouragement to smaller powers seeking American nuclear protection in any circumstances in which the physical security of the US is not immediately and obviously threatened. If these trends were to prove decisive, the world including Australia would have to adjust to that fact.

Yet many aspects of the US world position are not susceptible of quick or easy change. The US cannot, even if it would, opt out of the bilateral strategic balance with the Soviet Union. In fact, the recent history of Soviet-American negotiations does not suggest that either government has any interest whatever in abandoning super-power status, in

needlessly expanding the super-power club or in relinquishing its measure of control of the central strategic relationships of the world. The US cannot abandon its nuclear arsenal, whatever the short-term fluctuations of domestic opinion might be. Washington cannot be disinterested in the future of Japan, or America's position with respect to the Sino-Soviet relationship. Neither can the US abandon Hawaii or the Marianas or its dominant position in many of the world's oceans or its investment in the stretegic aspects of space technology.

How American power will be deployed and used in future is another matter. Here, there are wider considerations than those of American politics or administration intentions. Small nations must take particular note of the increasing fragmentation of the international system. Diplomatic history has often fluctuated between an emphasis on alliances and a stress on national freedom of action. The first can offer security, but at the cost of periodic involvements in conflicts of secondary concern yet burdensome costs. The second can offer freedom from these burdens, but at the possible cost of later involvement in big conflicts whose eruption an earlier engagement might have helped to prevent. The evidence is clear that many nations are at present tending towards the second approach. Population growth, economic problems and generational conflicts dispose them towards introspection. The decline of the effectiveness of the United Nations, the smaller role of foreign aid, the breakup or attenuation of the great post-1945 alliance systems, the disillusionment of the advanced nations with Afro-Asian pretensions and incompetence, all

testify to this trend. The stress is on sovereignty, independence of action, acceptance of the notion that peace is divisible. It is not a trend likely to favour the concepts of compromise in a common interest, of acceptance of broader than merely national purposes, which underlay the Concert of Europe after 1815 and which must, in part, again underlie any successful effort to prevent or limit the proliferation of nuclear weapons.

From Australia's point of view, however, American doubts and international fragmentation relate more to an unknown future than to the present and its practical decisions. Though the circumstances of American ascendancy and strategic primacy are changing, the US remains the most powerful country in the world. Its alliance with Australia is hardly affected. If there are to be outside nuclear guarantees, they can hardly be other than American ones. The Chinese nuclear force is not yet built. Japanese strategic power is not developed. The Soviet interest in southern Asia is partial, the Soviet presence shows no evidence as yet of massive effort. Arguments about lead-times notwithstanding, if there are reasons for constructing an Australian nuclear force, clear and present dangers are not among them.

The Australian potential

The real driving force behind the current Australian approach to a nuclear capacity is not military but economic. Nuclear installations are expected to play an increasingly significant role in power production, desalination and general development. They will help to provide the basis for economic growth, population increase and the broad strength on which other things, including security and military power, ultimately rest.

Australia has shown an interest in Project Plowshare-type uses of nuclear technology. Though a project for creating a harbour on the northern coast was shelved for a variety of reasons ranging from cost to diplomatic complications, Australia does not wish to be prevented from accepting other projects which may become feasible. Among them may be underground blasting in order to free oil, natural gas or mineral deposits, or perhaps for eventual underground water storage for irrigation and other purposes. More immediately, however, there is the matter of nuclear power. As with other developed countries, power consumption is increasing rapidly. It will be further stimulated by the consequences of recent mineral discoveries which promise to give Australia a general resource base not unlike that of the North American continent. Australia's total installed electricity capacity in 1970 was around 15,000 megawatts. Consumption is doubling every eight years. By the end of the century, according to some estimates by the Australian Atomic Energy Authority (AAEC), the country will have some 110,000 megawatts of installed capacity, 36,000 megawatts of it from

nuclear sources.[1]

Yet in 1970, Australia did not operate a single power reactor. The AAEC has two small experimental reactors, HIFAR and MOATA, both subject to International Atomic Energy Agency (IAEA) safeguards. This lack of development has to do with the peculiarities of Australian conditions. Thermal electricity has been cheap. The isolation of state capital cities has made feeding the 500 or 750 megawatts from large nuclear reactors into the grid of any one state either unnecessary or uneconomic. But the federal government has now begun a project for a 500-megawatt reactor at Jervis Bay on the Southeast coast. It is a pilot project, clearly intended to give Australia experience in a complex new field of technology, to train personnel and to prepare for the day when Australia can build reactors of her own, as much as to supply power. By the end of 1970, Australia had made no final choice between the various Canadian, British, German and American reactors which were on offer. It is evident that overseas reactors, and any other help with nuclear technology, will only be available under stringent safeguards against military exploitation. If Australia adds ratification to her signature of the nuclear Non-Proliferation Treaty (NPT), future Australian home-built reactors would also have to come under inspection. The AAEC is clearly looking towards eventual sole national control of the nation's nuclear fuel. Australia possesses natural uranium. During the last two years there have also been probes in the direction of a uranium enrichment capability, for example through access to the Anglo-Dutch-German centrifuge technology. By late 1970, a preliminary

agreement had been secured, under which Australia would have such access provided that the output would not be used for weapons purposes and enrichment would be subject to IAEA safeguards. Enriched uranium is likely to play a special role when Australia begins to instal fast breeder reactors in the 1980's. The whole thrust of policies so far is consistent with an emphasis on economic benefits, which in turn has obvious optical and diplomatic advantages. But none of this wholly precludes eventual strategic benefits. Neither these arrangements, nor Australian signature of the NPT, prevent Australia from refining her general competence in nuclear engineering so that, if she ever had to opt out of the treaty, a weapons capability could be swiftly available. Indeed, it is a refusal to sign the NPT which would probably have created the greatest obstacles to such a refinement of her capabilities in this field, in that it would have led to a cut-off in the cooperation with friendly powers from which the Australian nuclear programme has greatly benefited. Moreover, as time goes by, the costs of nuclear projects can be expected to decline while the general process of technological proliferation will probably make individual moves less noticeable and therefore less politically expensive.

For the time being an expansion and consolidation of Australia's general scientific and technological competence and in any case pre-conditions for nuclear developments of any kind, whether in the reactor area or in weapons. In 1970 Australia still lacked the scientific and industrial manpower, or the experienced industrial base, for unaided progress

in either direction. Nor, for that matter, does she possess the aerospace and advanced electronics industry required for the independent construction of sophisticated delivery systems or effective defences against, for instance, modern high-speed, low-flying attack aircraft or submarine-launched cruise missiles. In these areas also Australian capabilities, though of good quality, lack the broad base required for an effort both independent and substantial.

Though no official figures are available, it has been estimated that in 1962 Australia had about 5,600 scientists and engineers qualified in the fields appropriate for atomic weapons, about 10 per cent of the UK figure and 20 per cent of the French figure at the same time. By 1970 the Australian figures may have increased to 8-8,500. One of the problems is the very limited employment opportunities for graduates in the relevant fields. In physics, for example, it has been estimated that in recent years up to half of all new Australian graduates had to seek employment overseas. Not the least of the virtues of an Australian power reactor programme will be the employment and further training opportunities it will afford such graduates. For the time being, however, it seems likely that the diversion of 2-3,500 scientists and engineers to a weapons programme - the minimum number required to produce simple explosive devices and some form of delivery vehicle - would impose an unacceptable strain on the Australian economy. This manpower shortage may last until the middle or late 1970s.

The relatively small number of scientists and engineers is also connected (whether as cause or effect) with the paucity of the Australian

R & D effort. Again, no firm figures are available. But it has been estimated that during the later 1960s Australian R & D expenditure was between 0.7 and 1.0 per cent of the GNP, 0.2 per cent of it in the private sector. As a rough comparison, in 1964/65 Britain spent 2.5 per cent of GNP on R & D, 1.8 per cent of it in the private sector, France spent 2.3 per cent in 1965, 1.0 per cent of it in the private sector and in 1964 Japan spent 1.6 per cent of GNP, 1.0 per cent in the private sector. Between 1967 and 1969 the fraction of defence spending which Australia devoted to R & D was about 1.1 per cent. This is fractionally more than similar expenditure in Belgium or Holland but compares badly with the 3 per cent spent by West Germany or the 10 per cent spent in this area by Sweden, let alone the R & D expenditures of nations like Britain or France.(2) In absolute terms, Australian expenditure on general defence R & D in 1968-70 was about A$12 millions p.a. By way of comparison, the average annual R & D cost of an air-to-air missile, spread over some ten years, has been estimated at around A$45 to A$55 millions. On the broad issues of a national R & D effort, however, the figures are not alone decisive. At least equally important are non-quantifiable matters such as the general encouragement of and receptivity to innovation, the science policy of the government and the large corporations, the management skills of civil servants and industrialists. Here, too, there are grounds for doubt. In part, this is doubtless because the Australian economic experience has been that prosperity is achieved through the large-scale production of primary produce, and latterly minerals, rather than through

innovation and high technology enterprise. If these are needed, they can be bought abroad more cheaply than created at home. Moreover, much of Australian manufacturing industry is both foreign owned and strongly protected. The second blunts the spur of competition from technically more sophisticated producers abroad. The first, which is most significant in some of the technically most important areas, means that overseas companies tend to have their research and development work done overseas, not by their Australian subsidiaries.

These are important handicaps. Given the accelerating pace of technical development they will make it difficult for Australia, as for almost all other nations, to maintain her relative technical standing let alone to close the gap with technologically leading powers, preeminently the United States. Nevertheless, this same process will make particular and comparatively static capabilities more easily available. Among these will be Australia's ability to build her own reactors, to process her own fuels and to refine a simple weapons option. Australia might begin to stockpile plutonium (albeit under inspection) once the Jervis Bay reactor begins to operate in 1975 or 76. Australian-built reactors fuelled by natural uranium might begin to operate between 1978 and 1980. These reactors will probably operate under inspection, and reactors run for power purposes would not be very efficient producers of plutonium. Nevertheless, some plutonium reserves might be physically available in Australia by the end of the 1970s. Some gas centrifuge capability must also be expected to be available, as will fuel fabrication facilities and

a plutonium separation plant.[3] Furthermore, Australia has no shortage of test facilities.[4] The nation could therefore be in a position to manufacture some simple plutonium-based weapons devices within eight to ten years of the acquisition of the first foreign reactor and within a year or two of a government decision to go for nuclear weapons.

It has been estimated[5] that over a ten year period from the late 1970's to the later 1980's Australia could probably build 150 twenty kiloton or 30-40 one hundred kiloton plutonium-based warheads for an average cost of less than A$50 million a year. In addition, one hundred 1,000-mile missiles, capable of being launched from ships, would cost another A$50 million a year, with cruise missiles costing still less. A command and control network, together with early warning radars against bomber or missile attack, would cost another A$60 millions a year. The matter of delivery systems is referred to below; but allowing a notional A$50 million a year for such a system, the total cost of the force would be well within Australia's capacity. Expenditure of A$200 million a year amounts to less than 20 per cent of the Australian defence budget for 1969/1970. On the other hand, it is clear that if British and French costs for thermo-nuclear systems are a safe guide, Australia cannot in the foreseeable future consider these. The French nuclear force, with its limited capability, appears to be costing about as much per annum as the entire Australian defence budget, and even this crude guide makes no allowance for peak expenditures during some years of particularly heavy capital expenditure.

A future weapons programme?

Australian nuclear weapons choices will be limited in other ways. In most foreseeable situations alliance with a nuclear power, certainly the US and possibly the UK, would be more effective in fulfilling Australian purposes than an unaided Australian nuclear weapons effort. Obviously enough, credible American support for Australia constitutes a stronger deterrent than most threats which Australia herself could offer. If the credibility of the US guarantee were to become doubtful, a variety of steps may be open to Australia to strengthen the American commitment. This is one aspect (though not the only or necessarily the most important one) of Australia's hospitality to a variety of US military and space facilities on Australian soil. In a situation where this no longer seems sufficient, Australia may wish to produce advanced weapons of her own, but as far as possible in conjunction with her greater ally. A wholly independent weapons programme is likely to be undertaken only as a last resort. The exercise of a weapons option will therefore be in considerable part a function of the Australian perception - and the perception of Australia's potential rivals - of the reliability of her alliance with America.

The two major dangers, from the Australian point of view, are that the American guarantee may become doubtful or that, even if it does not, its effectiveness may become limited. The doubts may arise as American commitments are refined over time, or as other nations acquire an effective deterrent against the US. So far, only the Soviet Union has this capability and its interests in the Indian Ocean and Southern Asia are not

yet major. It is therefore a major Australian interest that other powers, especially China, do not achieve an effective second strike capability capable of penetrating US defences. Once such powers have this sort of capability, a US guarantee of Australia, even if it continues to be available, may result merely in a mutual standoff at the strategic level, which need not prevent other, or conventional, forms of action. Even US help against minor nuclear powers might, in ten or fifteen years' time, only be available where that minor power has not achieved alliance status with a power which is itself able to dissuade or deter the US.

If Australia comes to the conclusion that a nuclear force of her own has become necessary, she will surely wish to acquire it without unnecessarily increasing then-existing dangers. It would be unwise to speed any American disengagement. The least possible encouragement should be given to the general tendency towards proliferation. It would not be helpful to create in, for example, Indonesia a mood of alarm which could lead to the local development of nuclear weapons or a future resumption of friendship with China or military connections with the Soviet Union. Moreover, the sooner Australian weapons are deployed, the more they will imply a quick fix at the expense of broader, longer term technical development.(6) A longer period of technical growth and the postponement of a weapons decision which it implies - will mean better techniques and weapons in the end. It will therefore also cut short the period of maximum vulnerability, between the time when the decision to deploy has become obvious and when weapons become operational.

If weapons do in future become desirable, it will presumably also be because the possibilities of stationing allied weapons on Australian soil or partly under Australian command have been found unreal or inadequate. It is not impossible that some anti-satellite, ground-to-air, anti-FOBS or even anti-missile systems may come to be stationed in or made available to Australia. But Australia will not, by her own unaided efforts, be able to consider the construction of such sophisticated weapons as MIRVs, advanced nuclear missile submarines or anti-ballistic missile defences. In considering an Australian-built nuclear force one is thinking primarily about four groups of systems.

The first is an inter-continental missile of up to 3,500 miles range, with solid fuel boosters. Such missiles would be based in Northern Australian silos or, more expensively, on mobile launchers. Once acquired, these missiles could be used to deter major opponents - the Soviet Union, China or, in the more distant future, possibly Japan - from launching a direct attack upon Australia. For such an opponent their presence would imply some risk of major damage in the event of a conflict, irrespective of the stance of any of Australia's allies. There would, however, be important disadvantages. Such systems would be very much more expensive than the cost structures outlined in the previous section. They would take longer to produce. They involve new kinds of technology, especially for re-entry vehicles. Though Australia has taken part in a variety of space flight and testing programmes in conjunction with Britain or the US, it is not evident that the technology required by a warhead-carrying re-entry

vehicle would be quickly mastered. Even once deployed, such missiles might be vulnerable to an opponent's disarming strike. Their command and control arrangements might also be suspect - or else extremely expensive. As a result, the would be provocative to an opponent who might expect Australia to be forced to adopt a fire-on-warning strategy. At the same time the missiles would be unlikely to be available before the middle 1980's and by then, even if they were successfully launched, such a first-generation force would probably have little penetrability against the anti-missile defences of a technically sophisticated opponent.

The second type of system would be an air-to-surface missile or free falling bomb carried by aircraft. Such a missile would offer few problems for Australian technology. In the bomber category, Australia possesses some 60 Mirage IV-A strategic bombers, controls some Phantoms and has 24 F 111C aircraft on order. A system of this kind, based in Northern Australia or on friendly territory, could be used in support of a variety of policies, or the deterrence of threats, in much of Southeast Asia and the Indonesian archipelago. Since anti-aircraft systems are far from perfect and low-flying aircraft can penetrate even very sophisticated defences, such aircraft might also have some use as a deterrent against major opponents like China and the Soviet Union. But here, too, there are difficulties. Only about two thirds of the aircraft would be available at any one time. The airfields would be vulnerable to preemption by missile, aircraft or submarine-borne attack. It would therefore be necessary to maintain an airborne alert, which implies a total force

rather greater than Australia's prospective 24 F 111s. The aircraft, moreover, have a radius of less than 2000 miles. If any of them are to reach a major opponent, therefore, Australia will also need air tankers which she has not bought or overseas bases which she does not have. Furthermore, an announcement, or evidence, of plans to deploy a nuclear force would raise additional difficulties. If Australia continues to buy major weapons systems abroad, their use may in some circumstances be subject to a veto by the supplier power which could deny the necessary spare parts if it disapproved of the purpose for which the system was being used. It will be interesting, in this connection, to see what, and what quantity, of spare parts Australia acquires together with her F 111s. If, on the other hand, Australia were to try to build F111-equivalents herself, they would - even assuming that Australia commanded the necessary technology - be vastly more expensive than the A$300 million which Australia is likely to spend on the version from General Dynamics. Nor have the American-supplied aircraft been modified to carry nuclear weapons. Australia has not developed the Short Range Attack Missiles with nuclear warheads which the American FB 111 version of this aircraft will carry. No moves appear to have been made to acquire such weapons. Nor is it clear what effect Australian modifications to the plane, to enable it to carry similar or other means of delivering Australian-produced nuclears, would have on the operational performance of the aircraft. Another possibility, on a very different level of sophistication, may be open to Australia. Once free falling bombs are available, potential

opponents would be faced with some risk that an attack upon Australia would be avenged by civil aircraft requisitioned and sent on one-way nuclear delivery missions. Whether, and under what conditions, a potential opponent would consider such vulnerable aircraft to be a serious factor in his strategic equations is another matter.

A third kind of system would comprise eight to ten ships - surface or submarine or a mix of both - carrying cruise or ballistic missiles of several hundred miles range. These would constitute a force which no opponent could disregard. Surface ships could be built or bought and converted relatively cheaply. The cost of conversion of submarines has been estimated at around A$300,000 per boat per year. Pending a breakthrough in Anti-Submarine Warfare neither the Soviet Union nor China, and perhaps not even the Japanese, could guarantee the prevention of an attack from such a force. As for the surface ships, they would be hard to detect, and therefore preemptively destroy, among the hundreds of merchant ships on the world's sea lanes. Both in the case of major opponents and within the South East Asian region, population centres within several hundred miles from the coast would be at risk in a conflict with an Australia thus armed. The cruise missiles would not be vulnerable to anti-ballistic missile defences, though many of them might be destroyed by more conventional ground to air systems. The force would represent a powerful deterrent. The difficulties in this category are that to be viable the force would have to be much bigger than Australia's present naval capability would permit. It would create problems for naval

bases situated near the Australian population centres. Reliable control and communications systems for the fleet would present additional problems, possibly including a need for facilities abroad. Nevertheless, this seems the most promising system.

The fourth kind of effort would be to counter a future invasion attempt.. An attack on an invasion force before it had sailed would be strategically and politically indistinguishable from a first strike. It is very hard to imagine Australia having either the means or the disposition to undertake it. An attack on an invasion force at sea or after it had landed on Australian soil would involve shorter-range surface-to-surface missiles and free falling bombs. (Another, and perhaps more improbable suggestion has been for nuclear landmines to be sited on uninhabited parts of the coast.) Technically, these systems present no problem. Their usefulness, however, is not always evident. An attack upon an invasion fleet properly deployed at sea might be much more effective if carried out by conventional means and in conjunction with an ally (especially the US Navy) than by unaided Australian nuclear bombardment. A 20 kiloton device need not disable a warship if it falls more than one mile away. A fleet of 100 ships stationed at proper intervals might therefore need, say, 50 bombs to disrupt the fleet and 100 bombs aimed with reasonable accuracy if the defence wished to put every ship out of action. Even the use of larger plutonium bombs does not resolve these difficulties. An attack on troops landed in Australia might be easier, especially if the enemy had landed in the North, where his resupply would

be easiest but no major Australian population centres would be in danger. On the other hand the enemy, knowing that Australia possessed tactical nuclear weapons, would be unlikely to operate in a fashion which exposed his troops to them; and a landing force near Sydney or Brisbane could presumably not be thus dealt with.

It is evident enough that many of these scenarios contain large improbabilities. No invasion of Australia is at present remotely likely. No Australian government is likely to accept significant expenditure to guard against it, as distinct from retaining the option to do so in the future. The question of tactical nuclear weapons, however, bears upon less unlikely Australian involvements: low-level conflict overseas. Several powers, and especially the US, are placing increased emphasis upon greater fire-power to compensate for decreasing numbers of men in uniform. There is fresh emphasis upon miniaturisation of warheads, yields in the single-figure kiloton range and only short-term radiation effects. If pursued, this development will tend to obliterate any but the psychological gap between nuclear and conventional weapons. It will create a new family of armaments whose use would be much less likely to lead to escalation, and might therefore be subject to fewer hesitations.(7) If Australian troops engaged overseas should find themselves fighting alongside allies, or against enemies, equipped with small-yield nuclears, there could be great pressures for Australia to acquire the technical knowledge needed to construct these sophisticated small weapons.

Actual Australian procurement policies to date have been much less ambitious and much more complex than this simple categorisation would

imply. No single weapons system has been acquired, or proposed, which would unambiguously indicate an Australian desire for a nuclear capability. Australian bombers, including Mirage jets and older Canberras, could be modified to carry such weapons if they were available, and subject to the kinds of disadvantages outlined above. The F 111s will have an obvious nuclear potential, useful in spite of the fact that Australia is not buying air tankers. The implication, especially for nearer neighbours like Indonesia is that the aircraft could carry such weapons if it became necessary. This may have diplomatic advantages without constituting a threat sufficiently overt to arouse an Indonesian response. In the naval area, Australia has bought four conventional "Oberon" class submarines from Britain, and several Charles F. Adams-type destroyers from the US. The destroyers are fitted with the Australian ~~Kiera~~ IKARA anti-submarine system and the US Tartar ship-to-air missile. Australian expansion in these categories is limited by the fact that procurement of major naval items tends to be by purchase abroad. Australian shipyards have not attempted to build submarines, and Australian-built destroyers have in the past proved to be distinctly more expensive than ships bought overseas. In a period when a vessel is, increasingly, merely a platform for the deployment of weapons systems, the need for advanced radars and missiles may emphasise the desirability of buying the entire system, ship and weapons, in one package from abroad. Nevertheless, these purchases also refine Australian military capability and train personnel in operating advanced systems. They tie in with other Australian experience in missile testing and launching, and in telemetry. This, too, carries implications for the coming decade which other nations cannot ignore.

The domestic politics of a nuclear weapons decision

At no point since the second World War has any Australian Government shown itself enthusiastic about acquiring nuclear weapons and there has never been large-scale public support for such a policy. Few Members of Parliament have spoken in favour of it. Noone has suggested that such weapons are needed for reasons of prestige or, indeed, for any reason other than the possibility that American protection might become doubtful. The reluctance of successive governments to pursue a nuclear weapons policy has doubtless been reinforced by the realisation that, for the time being, Australia is in no position to do so. Indeed, it is common ground between the Government coalition and the opposition Australian Labor Party (ALP) that Australia is not yet in a position to decide whether to acquire nuclear weapons. Debate has therefore involved the somewhat vaguer area of which future options Australia should foreclose. The ALP has usually stressed its abhorrence of all forms of nuclear warfare. On the grounds of both moral principle and strategic argument it has stressed support for the Nuclear Non-Proliferation Treaty and has, indeed, spoken in terms of nuclear-free zones for the Southern hemisphere or the Southwest Pacific. It rejects the notion that Australia should acquire, or retain the option to acquire, nuclear weapons. But the ALP also has certain difficulties. Though the party supports the US alliance, the Government has over the years scored repeated electoral successes by claiming that the ALP is unreliable on this issue. The ALP has therefore had to present both its anti-nuclear weapons views and its suspicion of US bases and facilities in Australia without increasing its vulnerability

to this form of attack. The party has been able to argue that any Australian move which conflicted with the NPT would offend against American support for that treaty and thus harm rather than help the alliance. But its position has not always been easy. This element of ALP weakness underlines the importance of other groups which take a very different view. The most powerful among them is the Democratic Labor Party (DLP), a largely Catholic group which split from ALP some fifteen years ago on the issue of alleged ALP "softness" on Communism. Though it is a minority group, the DLP strengthened both its popular vote and its Parliamentary representation in the Senate elections towards the end of 1970. But its most important asset is the fact that Australia's referential voting system makes the Government coalition dependent upon the second preferences of DLP voters in certain crucial areas of the country, notably the State of Victoria. In a general election, the loss of a major portion of those second preferences would topple the Government. Consequently, though the DLP would presumably be reluctant to bring in an ALP administration, the coalition headed by Prime Minister John Gorton is very sensitive to issues on which the DLP feels strongly. One of the foremost of these issues is defence, The DLP has persistently argued in favour of a greater defence effort, arguing that in the longer term neither the US nor any other ally can be relied upon and Australia's security demands the provision of a nuclear force. These proposals have not always been either technically sophisticated or diplomatically wise. Nor has the Government favoured them. But in terms of Australian politics, they

unquestionably have some influence.

Given the regional character of much of Australia's politics, the technical complexity of the issues which are not well understood by the public, and the need to take decisions which, once taken, will be binding are into the future, the views of the civil service are of particular importance. Both within the service, and among academics and intellectuals on the fringes of government, the number of people concerned with nuclear weapons affairs is small. Those who have argued that weapons are, or might be, needed have been fewer still. Some officials within the AAEC have been attracted by the prospect. Its Chairman, Sir Philip Baxter, is on record as saying that Australia will need the most advanced weapons, of whatever kind. Within the Department of Defence there is a school of through which believes that in view of the great range of uncertainty in all Australian strategic planning at present, a clear renunciation of weapons opinions might be unwise. The weight of opinion in the Treasury seems to be that no major expenditures in this direction are warranted; and in Foreign Affairs the dominant view is probably that moves towards a weapons option would have highly undesirable consequences vis a vis the United States and Britain and, not least, among Australia's neighbours.

Public discussion of these matters has usually concerned one or more of four issues. The first is the morality of owning or producing nuclear weapons or of threatening to use them. The second is whether any Australian force could reasonably be expected to fulfil the purposes for which it was acquired and deployed. Some opponents of a weapon option argue, for example, that Australia will never be the object of a serious Chinese nuclear threat;

that China will continue to be adequately deterred by the USSR and the US: and that even if a threat to Australia does emerge in the 1980's, an Australian nuclear force would be too small and unsophisticated to offer a credible deterrent to it. The third is whether the explicit adoption of a weapons option would on balance increase Australia's power and influence in the areas of her greatest concern, especially Southeast Asia, or whether it would on the contrary diminish Australian security by arousing unnecessary and hostile reactions, The fourth is what kinds of policies Australia could pursue without unnecessarily antagonising her friends in Britain, the US and, perhaps, Japan. On the one hand it is argued that Britain would strenuously object to any attempt by Australia to exploit any form of British help and cooperation in the direction of a nuclear weapons option; and that the US would strongly object to any Australian move which undermined American anti-proliferation efforts. The latter might carry especially heavy penalties in a variety of matters from US military cooperation and support, and Australian defence purchases in America, to the import of US capital and technology. But it also seems likely that the US has shifted the emphasis of its anti-proliferation strategy. The stress used to be on preventing or slowing down all kinds of nuclear proliferation. It has moved to maintaining an American technical lead so great that the acquisition of second or third-grade nuclear forces by lesser states no longer poses a threat to the US. If this is so, a minor nuclear force in Australian hands need not seriously affront US policies in this area. The logic of the US desire for regional balances may even

compel acquiescence in at least some nuclear component in the stabilising of those balances. In any case, both the British and the French precedents indicate that once a nuclear force has been acquired by a smaller state, US policy accepts the fait accompli and adjusts itself to it.

At the hub of these arguments has been, for the last two years, the Australian attitude to the NPT. Groups to the left of centre on the Australian political spectrum have argued for a swift and unqualified acceptance, signature and ratification of this instrument. The DLP has suggested that the treaty would tie Australian hands without offering a serious measure of security in return. The AAEC has raised a variety of technical objections, including a suspicion of the consequences of inspection which seems to have been derived, at least in part, from German and Japanese doubts on these matters. But majority opinion (including academic strategists) has argued in favour of the treaty. Australia, it has been said, should adopt a generally favourable attitude to it. She has a stake in preventing or slowing down the spread of nuclear weapons, both as a member of the community of nations and, more specifically, because proliferation would increase instability and therefore danger in her own region. It is true that the treaty cannot, of itself, prevent proliferation. Nor do the treaty, and the associated big power guarantees, ensure the security of signatory states. But the treaty can hope to influence the intentions rather than the capacities of near-nuclear countries. It will make absention easier for those states which do not have a compelling need to go nuclear. It can provide some assurance for pairs of antagonistic states that neither will take sudden advantage of

the other in this area. The treaty will have an effect on the great powers also. Its success will affect the guarantees which the great powers are willing to give to their smaller allies. Its failure would adversely affect the chances of detente between the US and the USSR and accelerate the trend towards fragmentation of the international system, with the great powers seeking to insulate themselves from unwanted involvement in the disputes of others. In so far as Australia has an interest in a world built around a Soviet-American detente, and increasing rather than decreasing international cooperation, she should support the NPT. At the same time, Australia should reinforce the trend which seeks to make the peaceful uses of nuclear technology, including the peaceful use of explosions, widely available. And she should refine her nuclear capability and engineering skills in ways which are compatible with the treaty. The Government appears to have accepted at least some of these arguments.

The Australian Government and the NPT

The most recent full statements on the Government's attitude came early in 1970. On the 18th February the Prime Minister, Mr. Gorton, announced the Australian decision to sign the treaty. On 27th February Australia signed the treaty, but tabled a series of reservations on matters which required clarification before Australia would proceed to ratification. The Government proclaimed its support for the principle of non-proliferation of weapons of mass destruction, accepted the proposition that the security of the world would depend upon effective measures to control nuclear arms, and expressed the hope that the treaty would be effective and contribute to that end. It commended the treaty to other governments, and hoped its implementation would lead to improved relationships. The Government noted that some important near-nuclear states - including two of particular interest to Australia, West Germany and Japan - had agreed to sign, and their accession would help to make the treaty more effective. At the same time, it was stressed that the Australian signature did not of itself imply ratification. Assurances would have to be obtained on several points. It would have to be made clear that the treaty would not affect existing mutual security arrangements. In particular, the proposed great power guarantees to accompany the NPT must not be taken to affect or replace arrangements in accordance with the normal right of individual and collective self-defence under Article 51 of the UN Charter. The Government stressed its understanding that the NPT would not only not hinder but positively assist non-weapon states in the exploitation of the peaceful uses of nuclear energy. The

Government also paid especial attention to the matter of safeguards under Article III of the NPT. Its statement of reservations made three points. Australis must not be subjected to safeguards agreements less favourable than those accorded to other signatories, individually or collectively. It seems likely that this referred to the discussions on whether the inspecting agency, the IAEA, should inspect European signatories directly or should accept supervision by the appropriate section of the European community. The Australian statement also asked that safeguards arrangements should not hinder the development and use of the peaceful uses of nuclear energy or obstruct economic development and trade. On the other hand, inspection should be positive enough to ensure detection of any breaches of the treaty. Thirdly, the statement asked for a review of the IAEA safeguards system to ensure that provisions were made for Australia's special needs. It was further noted that the treaty contained provisions for withdrawal in the event of the supreme national interests of a signatory being jeopardised.

From the indirect evidence at present available, there were several reasons for the Australian Government's tentative support of the treaty. Australia would feel more comfortable in a world where the NPT was effective than in one where it was not. The maintenance of US nuclear preponderance and of a stable Soviet-American balance is consistent with Australian aims. The reassurances which Canberra sought during 1969 and 1970 with regard to the Nixon doctrine seem to have been broadly satisfactory. The Australian signature may also have been preceded by more specific discussions about the applicability of US guarantees of Australia in any future circumstances

of nuclear threat. Australia's signature was in any case delayed until after those of West Germany, Japan and Italy and preceded that of Indonesia by only a few days. Obviously the general trend on proliferation was very much in the Government's mind.

Australia's continuing need for foreign technology must also have pointed towards signature. Indeed, given the diplomatic circumstances of 1970/71 and the adherence of the UK and the US to the treaty, the swift development of Australian capabilities, whether for reactors or for weapons, may positively demand acceptance of the NPT. At the same time, in so far as the treaty succeeds in slowing down proliferation, it may enable Australia to catch up in such matters as delivery systems and general weapons technology in case the spread of these weapons does go on. Once Australia has ratified, she ~~will~~ would also be a member of the conference to be held to review the treaty's progress. She ~~will~~ would have a voice in deciding on any amendments which may be proposed. And there remain ambiguities about which of these decisions will be settled by simple majorities and which may require unanimity.

On the other hand, it seems that the safeguards provisions are, from the Australian point of view, a most difficult hurdle. Discussions with the IAEA as to safeguards procedures have gone on throughout 1970. What the issue will be is not yet clear. It is sufficiently well known that safeguards can offer a warning of, say, the diversion of fissionable material to military purposes. They cannot prevent it. Even if a warning were given, the mechanism to act upon it is not established; the use which any political authority might make of that mechanism is quite unclear.

In any case, safeguards will not be foolproof. A nation determined to divert fissionable material could divert perhaps up to 5 per cent of its throughput of plutonium without detection even if its reactors were being inspected. This uncertainty, moreover, operates more effectively against small than against large nuclear powers: five per cent diversion in an embryonic nuclear power programme might not matter. Five per cent diversion from a large and sophisticated programme might permit the construction of a strategically significant military force. At the same time, the very fact that Australia and the US have ratified the NPT could make it politically more difficult for the US to give Australia help with some of the relevant technologies, even in ways which are technically compatible with the treaty. These and other uncertainties must give pause to a threshold power like Australia. For one would expect that her attitude to nuclear policy problems will continue to be formulated in the light of the relationship between US strategic power and developments in Eastern and Southern Asia, with particular reference to the developing attitudes of China, India, Indonesia and Japan to the treaty and its consequences. Of equal importance will be the impact of the eventual safeguards provisions on the industrial and technical development of Australia. The Government seems determined to have no unnecessary obstacle placed in the way of Australia's entry into a nuclear post-industrialism. That a military capacity will be at least a bye-product of that entry seems inevitable. Whether that bye-product will be exploited remains to be seen.

FOOTNOTES

(1) In Australia, as elsewhere, the situation promises to be rich in ironies. One effect of conservation and anti-pollution pressures is likely to be an accelerated development of more advanced power production techniques. Many of these, from advanced breeder reactors to methods for harnessing solar energy, will have uses, or by-products, or clear military value.

(2) The figures are derived from C.J.E. Harlow, The European Armaments Base: A Survey, Parts 1 and ', (Defence, Technology and the Western Alliance, No.2) London, Institute for Strategic Studies, June and July 1967. For a general discussion of the Australian procurement position, see Ian Bellany and James Richardson, Australian Defence Procurement, in H. Gelber (ed.) Problems of Australian Defence, Melbourne, Oxford University Press, 1971, Ch.16. For R & D see esp. Tables 9 and 10, pp.267-69).

(3) Whose capital cost was estimated in 1969 at A$30-40 millions,

(4) There might also be the possibility of producing untested devices. Or underground nuclear explosions, conducted for legitimate economic purposes, could nevertheless produce some militarily useful information.

(5) The figures quoted here are taken from Ian Bellany: Nuclear Arms for Australia? Current Affairs Bulletin (Sydney) Vol.46, No.1, June 1970 and Ian Bellany: An Australian Nuclear Force (Canberra Papers on Strategy and Defence No.4) Strategic and Defence Studies Centre, Australian National University, ANU Press, Canberra 1969.

For somewhat higher estimates, relating to a somewhat different force structure, see H.G. Gelber, The Australian-American Alliance, Harmondsworth, Penguin Books, 1968.

(6) They might, however, fit into the growing Australian stress on home-produced weapons rather than reliance upon overseas hardware. For a discussion of this at the conventional level, and doubts about expensive foreign weapons for the sake of compatibility with allies, see the 1970 Roy Milne Memorial Lecture by the former Secretary of the Department of Defence, Sir Henry Bland, "Some Aspects of Defence Administration in Australia", Australian Institute of International Affairs, 1970, pp.14 et seq.

(7) Whether such weapons would in fact be easier to use remains to be seen. And whether it is really in the interests of the international community to eliminate the nuclear allergy of all nuclear powers to date may also be a matter for doubt.

(10)

The Role of Nuclear Weapons in the Politics and Defence Planning of Non-Nuclear Weapon States

NUPI/CP - 8 1971

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THE NUCLEAR GENIE: NORWEGIAN POLICIES AND PERSPECTIVES

A CONFERENCE ORGANIZED BY:

norwegian institute of international affairs

9-13 March 1971

Klekken Hotel, Norway

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A Small Power Outlook

The nuclear weapon has presented the industrialized Small Powers with a unique security dilemma. The traditional Hobbesian predicament has been compounded by the imposition of the need to consider the national security in terms of the long term stability of the international system. The short term maximization of deterrence and defence against threats to national survival may set off chain reactions which ultimately could cause a serious deterioration in the structure of the international order.

By now it seems clear that the nuclear weapon did not constitute the great equalizer in international politics. The international system is still a stratified system where the power to coerce and to withstand coercion separates the powerful from the not so powerful. Nor did nuclear weapons become the ultimate differentiator, putting any and all nuclear weapon states in a category of salient superiority vis-a-vis all non-nuclear weapon states. History has taught us something of the limited political convertibility of nuclear weapons. Super power, it turns out, is to a large extent paralysed power. The paralysis of power is basically, of course, a

function of the reciprocal deterrence obtaining between the two Super-Powers. It is the result of some widely shared taboo notions. The possibility of escalation, which is inherent in any armed conflict where the commitments are limited by the will rather than the capacity, to some extent tends to paralyse the conventional power of the Nuclear Powers as well. The paralysis is far from complete, and it will depend on issues and circumstances.[1)]

The nuclear weapon constitutes an unpleasant but inescapable fact for the Small Powers who must make adjustments to this added complexity. Such adjustments have varied from country to country. It is the purpose of this paper to outline the adjustment policies of Norway.

The policies pursued by Norway have been, to a large extent, a function of the limitation of resources. Thus it is certainly possible that had Norway been a richer nation in the first post-war years she would have set out to create a serious option of a nuclear weapons program. Norwegian security policy has reflected the geographical location of close proximity to vital Soviet base areas, as well as the nature of interdependence obtaining in the Nordic system. Hence it has come to reflect a balance between deterrence and reassurance: deterrence inherent in the membership in NATO and the staging of allied manoeuvres in Norway and the Norwegian Sea, and reassurance in the unilateral restraint of not permitting the stationing of foreign troops in Norway, the practice of not permitting allied manoeuvres in the northernmost county of

Finnmark, and the enforcement of the prohibition against allied military aircraft overflying Norwegian territory further east than 24'E. Such a system of restraints also constituted a framework for decision-making in regard to the emplacement of nuclear weapons.[2)]

There is a sense in which the fact that most of the specialist literature on the security problems of the nuclear age are written from the perspective of the United States has tended to induce the specialists in the Smaller Powers to view the issues in a global and systemic context. Nuclear weapons are not very pleasant realities. They also do not sell well to electorates which have a basic moral aversion to the practice of power politics. Hence, the formulation of a policy which was "responsible" from the point of view of international society and "popular" in terms of domestic politics was not a particularly surprising outcome of the Norwegian debate on nuclear weapons. It also laid the basis for a set of priorities which caused Norway to give precedence to considerations of curbing the atom whenever it might conflict with efforts designed to produce greater cohesion in the Atlantic alliance.

The "Peaceful" Atom: Norway's Efforts

The Norwegian effort in the field of atomic energy grew out of the research programme of the Norwegian Defence Research Establishment (FFI), which was founded in 1946.

As early as 1945 investigations of the Norwegian uranium deposits had begun. A process for the refinement of uranium from alum slate was developed. In 1947 the Storting granted N.Kr. 5 million for the building of a uranium research reactor in Norway. The request for the funds was made in the context of extraordinary appropriations for national defence purposes. In 1946 the Norwegian government observed that "the production of the atomic bomb requires and will continue to require, unless completely novel and sensational discoveries take place, industrial and technical commitments on such a large scale that the smaller countries could hardly sustain them."[3] However, by the time the government asked for the funds to construct the research reactor, it observed that the defence authorities could not "dismiss the possibility that technological developments---combined with a failure in the international effort to control nuclear energy---may make nuclear energy also a part of the defence of a small country."[4] The primary purpose was, however, to establish a research milieu which could ensure Norwegian competence in the field of civilian energy technology. The research reactor programme was delegated to the National Research Council (NTNF). In 1948 the Institute for Atomic Energy (IFA) was founded. It was clear by 1949 that Norway could not count on obtaining uranium from the U.S. due to the then existing legal restrictions.[5] It eventually also became clear that the pegmatite deposits in southern Norway contained a lower concentration of uranium than had been estimated. The problem was solved, however,

by the conclusion of a cooperative agreement with the Netherlands, whereunder the latter would supply the uranium for the reactor. Graphite had been obtained from France in exchange for heavy water. The Institute for Atomic Energy became an independent entity (separate from the Norwegian Defence Research Establishment) in 1953.

The cooperation with the Netherlands was organized within the joint institute JENER (Joint Establishment for Nuclear Energy Research). The cooperative agreement concluded in 1951 was the first of its kind. The research reactor JEEP I, which used natural uranium, went into operation in the summer of 1951. It was originally designed for a capacity of 100 KW, thermal, but in 1956 a new cooling tower with a capacity of 800 KW increased the capacity of the reactor. The most important applications of the reactor were radioactive isotope production and experiments in neutron physics.

In 1953 a Chemistry Division was formed at IFA, the primary purpose of which was the development of processes for the separation of uranium and plutonium. The miniature purification plant was in full operation by 1961.

In 1955 plans were approved for the construction of an experimental 20 MW boiling heavy water power reactor at Halden.[6] Bilateral agreements with the U.S. (heavy water) and the United Kingdom (natural uranium) constituted a basic precondition for the realization of the project.[7] The reactor was located in the underground chamber of a large paper pulp factory. In order to obtain 20 MW the natural uranium had to be supplemented

by a fuel charge of 1.5% enriched uranium oxide. Part of this charge was produced by IFA, while the remainder was delivered by the Swedish "A.B. Atomenergi". In June, 1958 an agreement was signed on the operation of the reactor as a joint OEEC project.[8)]

In 1958 IFA concluded an agreement with a consortium of 19 Norwegian shipping companies, REDERIATOM, for design specifications of a nuclear powered vessel. The design study of a boiling light water reactor for a tanker of 65,000 tons was concluded by the end of 1962. A similar joint Swedish-Norwegian design study for the reactor of a 67,000 ton ore carrier was concluded in 1965. Cost-effectiveness calculations, however, led to a decision not to proceed with the construction of a ship reactor.[9)]

In 1959 plans were approved for the construction of a zero-effect reactor, NORA. This research reactor was designed to generate data for the planning of power reactors. The reactor was placed at the disposal of the International Atomic Energy Agency (IAEA) for a common reactor physics research program. The IAEA agreed to furnish the needed enriched uranium which would be rented from the U.S. Atomic Energy Commission. The IAEA safeguards provisions would hence apply to the NORA reactor program.[10)] In 1964 an agreement was concluded among Norway, Yugoslavia, Poland and the IAEA for a cooperative research programme in reactor physics, involving inter alia the NORA reactor.[11)] The NORA reactor ceased operations in 1969, although the international cooperation among Norway, Poland

and Yugoslavia continued. The planning of a new reactor, JEEP II, was begun in 1959. This reactor was designed for a thermal effect of 2 MW. It would use slightly enriched uranium oxide as fuel and heavy water as a moderator. The reactor started operations in 1966.

Norway participates in CERN[12], IAEA[13], EUROCHEMIC[14], (a European company for the operation of the uranium reprocessing plant in Mol, Belgium), and the DRAGON project[15],(a British high-temperature , gas-cooled reactor project).

During the spring of 1966 IFA and the chemical-industrial company, "Norsk Hydro", concluded a cooperative agreement for the project design of a 500 MWe atomic power reactor. For some years there was disagreement concerning the level of aspiration and scale of effort in the Norwegian atomic energy programme. The National Research Council and the Industrial Association advised against basing the utilization of atomic energy primarily on indigenous research.[16] The present level of aspiration aims at the establishment of competence enabling IFA to serve as consultant to the authorities and to the main contractors for the construction of power reactors in Norway. There appear to be few doubts that such reactors should be built. The kinds of reactors which formed the basis of the design studies were of the boiling water (BWR) and advanced gas-cooled (AGR) reactor varieties. The constuction of a power reactor is estimated to take about eight years. The optimum time for such reactors to be introduced would be around 1980, and in the late eighties at the latest. Current

policy decisions envisage the planning phase for the first power reactor to be completed by 1972-73, permitting the Storting to make a decision in 1973.[17] It has been estimated that by the time the first power reactor became operational contract negotiations would be under way for power reactor number four or five. Norwegian energy production has concentrated on hydro-electric power. Nuclear power reactors would not be price competitive until about 1980.

Oil and gas production on the Norwegian continental shelf could affect the relative cost calculations of alternative energy sources. It should also be noted as a general caveat to such cost calculations that considerations relating to conservation and environmental protection are likely to introduce new value criteria in the estimates of social utility.

According to a bilateral U.S.-Norwegian agreement the United States has declared its willingness to make available the enriched uranium for a Norwegian power reactor. Norway has considerable reserves of thorium (approximately 100,000 tons). However, the utilization of thorium is dependent on the development of economically competitive high temperature (HTR) reactors based on the thorium cycle.[18]

It is noteworthy that since some ambiguities in 1947 the civil reactor programme has not been considered in the context of creating an option for a bomb programme. The generally high competence which Norwegian scientists have accumulated over the whole post-war period, in addition to the existing reactor capabilities, place Norway in the category of a

potential nuclear weapon state, when such categories are based on capabilities alone. According to the former director of IFA, a Norwegian bomb program could produce a Nagasaki-type device in the course of "a few years", provided the financial conditions were established.[19)]

The Nuclear Threat and Civil Defence

The Norwegian defence posture includes a civil defence programme which is designed inter alia to provide a certain amount of protection against the effects of nuclear weapons attacks. In 1948 a plan was approved for the construction of public blast shelters for 20% of the population in urban areas, generating a total shelter capacity for 180,000 inhabitants by 1954.[20)] This turned out to be an overly ambitious programme. By January 1, 1970 there were approximately 250 public blast shelters with a total capacity for 160,100 people. Around 75% of the shelters are built in hard rock; the rest are built out of reinforced concrete. According to the present regulations, public shelters should be constructed for twenty percent of the population in towns with more than 5,000 inhabitants in Southern Norway and with a population exceeding 2,500 in Northern Norway. The current construction target involves the construction of public shelters for a total of 375,000 inhabitants.[21)] The design regulations stipulate that the public shelters should be able to withstand an overpressure from 2 (concrete shelters) to 3 (rock shelters) atmospheres

(i.e. 20-30 tons/m^2).

Private shelters must be built in all houses with a groundspace exceeding 150 m^2 or a total rented floorspace of over 400 m^2. The private shelters must be designed to withstand an overpressure of 1 to 2 atmospheres (10 to 20 tons/m^2).[23] By January, 1970 there were private shelters for 908,635 inhabitants. There are no regulations about the construction of fall-out shelters in rural areas, but there exists a recommendation for such regulations to be established.[24]

Plans exist for limited and complete evacuation of all towns with a total/ population of 10,000 or more. Existing evacuation plans involve the transfer of up to 800,000 people from the urban to the rural areas. No major evacuation exercises have taken place however.

The civil defence programme in Norway has been the subject of surprisingly little public controversy. Arguments about civil defence contributing to a first strike posture have not been particularly applicable to the Norwegian defence posture, and there appears to prevail a general notion that the objective of protecting people against the effects of nuclear war is a reasonable and just one. It is clear, nevertheless, that the Norwegian civil defence programme falls far short of constituting a maximum effort. A lack of integration also appears to prevail in the planning assumptions which form the basis of the civil defence effort on the one hand and the formation of the military defence posture on the other.

The Tactical Weapons Controversy

Indigenous production of Norwegian atomic weapons has never constituted a serious policy option. The possible stationing of tactical nuclear weapons under a dual-key arrangement with the United States was the subject of rather intense examination and political dispute during the years 1957-61. Since that time Norwegian nuclear policy has been confined to participation in the consultative arrangements in NATO about guidelines for the possible use of nuclear weapons.

The immediate post-war years confronted Norwegian defence planners with the need to adjust to the potential threat from nuclear weapons in a future conflict. The main emphasis was put on indirect protection through dispersal. It was argued that the Small Powers would probably be unable to mobilise the industrial and technical resources needed to implement a nuclear weapons program. But, as we have seen, there was an element of prudent hedging in the justification for the first research reactor.[25] It was emphasized that the topographical and demographical profile of the country facilitated the task of protection against nuclear weapon attacks. It was also estimated that since nuclear weapons were unlikely to be available in large numbers for some time it was therefore unlikely that atomic weapons would be used against targets in Norway. This array of considerations did not amount to a wishful degradation of the perceived importance of nuclear weapons, but it did structure a perspective within which conventional forces would still have a substantial

role to play.[26]

The NATO decision in 1954 to base the defence planning on the early use of atomic weapons had some important indirect consequences for the Norwegian defence effort. A commission appointed in 1955 for purposes of evaluating the Norwegian defence programme tried to assess the implications of the quantitative and qualitative growth in the nuclear arsenals and concluded that "the nuclear threat already in the immediate future could, in the event of a major conflict, assume such proportions that it could be directed against targets in Norway as well."[27] There was no longer protection in insignificance. In addition to dispersing units protection had to be obtained through the hardening of base installations. The Military Chiefs Committee (Sjefsnevnda) arrived at the unanimous conclusion that in order for the Norwegian defence forces to have the necessary punch they would need more modern weapons. It recognised that nuclear weapons could not be produced by Norway, but it recommended that steps be taken to enable Norwegian forces to receive and operate tactical nuclear weapons.[28] The Ministry of Defence, however, argued that the control of nuclear weapons ought to be centralized in the joint commands.[29] In June, 1957 the Storting accepted an American offer to transfer to Norway a battalion of Honest John missiles and a battalion of Nike air defence missiles. It was emphasized at the time that the acceptance in no way implied a decision to accept nuclear weapons in the Norwegian defence system.[30] However, it is not unreasonable to surmise that for some elements in the decision-

making system the acquisition of the missile systems constituted a foot in the door, keeping it open for the subsequent introduction of nuclear warheads. This is a method which is not uncommon in any military establishment.

During the 1957 heads of government meeting in NATO the Norwegian Prime Minister carried out a preemptive diplomatic strike, stating that Norway had no plans "to let stores of nuclear weapons be established on Norwegian territory or to install launching bases for medium range missiles."[31] There had been some speculation in the press that Norway might constitute a favourable area for the emplacement of medium range missiles, and the Prime Minister acted to preempt any pressure arising in this direction. He did so in the context of a strong public sentiment against nuclear weapons, (the Schweitzer appeal obtained a great many signatures in Norway), and the adoption of a surprise motion by the Labour Party in the summer of 1957 to the effect that nuclear weapons must not be emplaced on Norwegian territory. Questions relating to the emplacement of nuclear weapons in Europe had also been the subject of communication in the exchange of letters between the Norwegian Prime Minister and the Soviet Premier, Bulganin. It is likely that the Norwegian announcement was interpreted in Moscow in the context of this exchange.

In 1960 the Military Chiefs Committee recommended that the Norwegian forces "be equipped with tactical nuclear weapons for the direct defence of Norwegian territory."[32] Emplacement in Norway was considered necessary in order to create a situation in which an adversary would be subject to

tactical constraints similar to those which applied to the Norwegian forces. The rapid concentration and dispersal of troops also necessitated the emplacement of nuclear weapons in Norway in peacetime. The government decided, however, that a total evaluation of the issue led to the conclusion that no nuclear weapons be stationed in Norway during peacetime. The considerations which motivated this decision were quite analogous to those which formed the rationale for the reservation in regard to foreign bases in 1949, i.e. the need to balance deterrence with reassurance and the need not to upset the regional stability. It was also argued that the decision was motivated by a desire not to contribute to the further proliferation of nuclear weapons. Proliferation was understood in this context as the geographical distribution of nuclear weapons and not as a concept focusing on the identity of the decision-making authorities.[33)]

The Norwegian government was careful to emphasize that its decision constituted a unilateral constraint which did not constitute an international legal obligation. Hence Norwegian authorities would, in principle, be free to reverse the policy in a situation where the perceived threats are such as to make a reversal necessary.

The decision was preceded by the most extensive debate on security policy in Norway since 1949. The arguments are summarized in the table below.

PRO	CON
MILITARY ARGUMENTS:	MILITARY ARGUMENTS:
-Emphasis on deterrence -Tactical advantage/symmetry -TNW as compensation for manpower inferiority -Low population density minimizes collateral damage problem -Topography forces adversary to concentrate -Need modern weapons for morale reasons	-Emphasis on consequences if deterrence fails -Fear of preemption/escalation -Nuclear warfare increases need for manpower -No targets necessitating use of nuclear weapons against Norway -Incredibility of Norwegian first use -Fear of reduced convantional forces
POLITICAL ARGUMENTS:	POLITICAL ARGUMENTS:
-Loyalty to NATO -No proliferation of/control over nuclear weapons -No inconsistency with base policy -Prevent neutralist erosion -Prevent power vacuum in Northern Europe	-Avoid subservience to NATO -Avoid complicating control of proliferation -Avoid upsetting regional system stability -Avoid provoking the Soviet Union -Nuclear weapons illegal and immoral

TABLE I : Arguments in the Norwegian Nuclear Debate, 1957-1961[1]

It is worth noting that the proliferation issues played a rather marginal role in the debate. More specifically, the potential impact of the Norwegian decisions on the decisions in the only serious threshold country in the Nordic system, Sweden, did not receive any attention.

The insistence on the part of the government that the

constitutional authorities retain the right to reverse the policy on tactical nuclear weapons in extreme circumstances constituted one of the reasons for the emergence of a new left party in Norway. The other parties, however, supported the Labour Party's position, and it soon became part of the conventional wisdom or national credo, imbedded in party programs and policy statements. Paradoxically such broadly based support also tends to degrade the credibility of the flexibility inherent in the original policy formulation. The official position also became a focal point in the process of public opinion formation. Thus the percentage of people who considered it advantageous for Norway not to possess atomic weapons rose from 56 in January, 1961 to 78 in November, 1964. 57% of those questioned in a 1964 survey thought that Norway should not make a commitment never to use atomic weapons, while 39% thought she should.[34)]

The contingent nature of the Norwegian atomic weapon policy is contradicted also by the fact that Norway has not concluded either a 144b agreement for information sharing or a stockpiling agreement according to the provisions of the U.S. Atomic Energy Act. In addition to Norway within NATO, only Denmark, Iceland, Luxembourg and Portugal do not have such agreements with the U.S. In the absence of such an agreement, a request for the transfer of nuclear weapons would, in principle, have to rest before the Joint Committee on Atomic Energy in the American Congrée for sixty days. In 1963 the decision was made to dismantle the Honest John

battalion in North Norway.

In spite of the perhaps questionable credibility of the Norwegian option to reverse its nuclear policy in a crisis, the contingent nature of the policy commitment has nevertheless constituted a rather important political buffer against efforts to formalize the commitment in non-contingent treaty form. Hence the government used the 1961 formulations as a rationale for rejecting the second part of the 1962 Undén plan which attempted to determine the conditions under which governments were willing to commit themselves not to produce or otherwise acquire nuclear weapons and not to receive atomic weapons on behalf of any other country. The second part of the scheme was unacceptable since it also appeared to contravene the need to maintain options for purposes of maintaining sanctions to keep the balance in the Nordic system.[35] Similar calculations caused Norway to reject the 1963 Kekkonen plan for the creation of a nuclear free zone in Northern Europe.[36]

The Norwegian government has been reluctant to agree to any regional arms control arrangement confined to the Nordic region, probably because of a fear of generating expectations about a change in basic orientation, which in turn might induce pressure. Hence the position has been that regulatory restrictions ought to cover a larger part of Europe, including the Soviet Union. Such a position does not constitute only a verbal camouflage. It reflects a recognition of the fact that the politics of nuclear arms control can

become a currency for the manipulation of political alignments and regional structures.

Nuclear Proliferation : The Systemic Perspectives

In regard to the discussion of nuclear management within NATO, Norway has advocated the position that the power of decision ought to be centralized in the American Presidency. This position reflects, of course, the fact that Norway does not entertain nuclear ambitions. However, the strong dependence on American support for the defence of Norway in the event that war should break out has caused Norwegian decision-makers to oppose any intra-alliance arrangements or conflicts which could cause the United States to reconsider or reduce its commitment to defend Europe.

During the MLF negotiations in NATO Norway adopted the position that she would not want to participate and that she would oppose any arrangement which would involve the diffusion of decision making power on nuclear weapons. The task of preventing the proliferation of nuclear weapons should, according to the Norwegian view, be given priority over the solution of intra-alliance management problems. The central consideration in this connection was not to increase the number of decision centers in the control of nuclear weapons in the alliance. Norway could adopt this view also because there was a fairly low articulation of interest in a project which was designed to preempt future

and potential interests in independent nuclear decision power.

Norway made it clear that she would not participate in the MLF project, nor would MLF vessels be permitted in Norwegian territorial waters. The suggestion that Norway should veto the whole project was, however, rejected by the government.[37)]

The change in the American position in 1965, involving a shift from a hardware solution to a consultation solution of the nuclear management issue in NATO caused several ambiguities which were compounded by the confusion prevailing within the American bureaucracies. The original scheme for a select committee gave way to an open-ended committee as Turkey and the Netherlands wanted to be in on the arrangements. Norway decided not to participate, in part, I suspect, because wires got crossed in both Washington and Oslo, causing the latter to misperceive the preferences of the former. When the temporary "Special Committee" was succeeded in December, 1966 by the permanent Nuclear Defence Affairs Committee, Norway corrected the "mistake" and joined. Presently she is also serving in the Nuclear Planning Group.

The choice of a consultation arrangement coincided with the Norwegian views on preferred strategies for proliferation management. It may be worth noting also that the issue involved in enhancing the credibility of the American nuclear guarantee to Europe is structurally analogous to the problem of insuring the credibility of the American

guarantee to commit forces to defend Norway if and when needed. There is no acceptable way of automating such decision-making, and hence no absolute solution to the credibility problem. The only approximate solution, according to Norwegian views, must be sought along the lines of consultation and reciprocal involvement at the planning level. Such involvement carries highest confidence assurance that the shared interests on which the commitment is based become "internalized" in the bureaucracies on both sides.

Norway was one of the 55 original signatory powers to the Non-Proliferation Treaty.[38] It was ratified in January, 1969 by a unanimous decision of the Storting. During the ratification debate it was emphasized that the NPT, according to Norwegian views, does not prohibit the kind of consultation arrangements which Norway participates in within NATO, nor does it prohibit the transfer of nuclear weapons to the territory of a non-nuclear weapon state as long as the power of decision remains with the nuclear weapon state.[39]

The experimental power reactor at Halden is presently controlled by ENEA (The European Nuclear Energy Agency under OECD). The JEEP II research reactor is subject to USAEC control. The U.S.-Norwegian agreement for peaceful atomic energy cooperation contains a provision permitting the inspection to be transferred to IAEA. However, that option has not been exercised, primarily it seems, because Norway is negotiating for membership in EURATOM in connection with the general membership negotiations with the European

Community. IAEA and EURATOM have not yet concluded a safeguards agreement. It is also worth noting that several EURATOM countries participate in the ENEA reactor at Halden. Norway has declared her readiness to negotiate a safeguards agreement with the IAEA, in accordance with Article III of the NPT. The Norwegian negotiator in Brussels has stated to the permanent ambassadorial committee representing EURATOM that any bilateral agreement between Norway and IAEA will contain a provision that Norway may subsequently join the arrangements concluded between the Agency and EURATOM.[40)]

Norway has also shown interest in managing the process of nuclear proliferation by the imposition of constraints on testing beyond those of the limited test ban treaty (LTB) of 1963. The possibility of making a contribution to the solution of the problem of verification was discussed on a Nordic basis from 1965, and a Nordic Cooperative Committee for Detection Seismology was established. In 1967 it recommended the construction of a Nordic siesmic array. At this time, however, negotiations between Norway and the U.S. for the construction of a large seismic array in Norway had come such a long way that the Nordic alternative was dropped. NORSAR, Norwegian Seismic Array, consisting of 22 sub-arrays, reached operational status in 1970.[41)] It is connected with two large arrays in the United States (LASA in Montana and ALPA in Alaska). It is possible that NORSAR may become an important part of the infrastructure of a threshold test ban treaty or a complete test ban treaty.

Thus, Norwegian perspectives have changed drastically as the nuclear age became a reality, from a nostalgic search

for protection in insignificance to an active participation in the constuction of the infrastructure of an international system of a limited number of nuclear powers and a great many non-nuclear powers. Norway has been able to establish a framework for national security within which it has been possible and even easy to marry enlightened self-interest to a wider conception of world order. No wonder she finds it hard to show empathy for those whose predicaments are less conducive to harmonious wedlock.

NOTES

1) For an elaboration see Johan J. Holst, Small Powers in a Nuclear World, NUPI/N-8/1970

2) For elaboration see Johan J. Holst, Norsk Sikkerhetspolitikk i Strategisk Perspektiv, Norsk utenrikspolitisk Institutt, Oslo, 1967

3) St. meld. nr. 32 (1945-46)

4) St. prp. nr. 118 (1947)

5) Institutt for Atomenergi, Survey of Activities, 1948-1960, p. 6

6) St. meld. nr. 95 (1955)

7) St. prp. nr. 62 (1957)

8) St. prp. nr. 102 (1958)

9) St. meld. nr. 22 (1966-67) p. 14 og Norske industriinteresser på atomenergiområdet, En innstilling til Norges industriforbund fra komitteen for klarlegging av norske industiinteresser på atomenergiområdet, Oslo, 1966, pp. 18-25

10) St. prp. nr. 96 (1960-61)

11) St. prp. nr. 79 (1963-64)

12) St. prp. nr. 42 (1954)

13) St. prp. nr. 58 (1957)

14) St. prp. nr. 97 (1958)

15) St. prp. nr. 78 (1958)

16) NTNF's forskningsutredning, NTNF, Oslo, 1964 og Norske industriinteresser på atomenergiområdet, op.cit. See also St. meld. nr. 65 (1965-66); St. meld. nr. 16 (1959-60), and St. meld. nr. 22 (1966-67)

17) St. meld. nr. 97 (1969-70), p. 49

18) Styret i Institutt for Atomenergi, Atomenergivirksomhet i Norge, NTNF, Oslo, 1970, p. 21

19) Gunnar Randers in interview with Aftenposten, Nov. 19, 1965

20) St. prp. nr. 139 (1948)

21) Vårt sivilforsvar 1970, Norsk Sivilforsvarsblad, Spesialnummer, p. 19

22) Sivilforsvaret, Bestemmelser om anlegg av offentlige tilfluktsrom, Oslo, 1970, p. 19

23) Sivilforsvaret, Forskrifter og tekniske bestemmelser for anlegg av private tilfluktsrom, Ingeniörforlaget, Oslo, 1970, p. 8

24) Innstilling om revisjon av sivilforsvarsloven, Justisdepartementet, Oslo, 1968

25) See Note 4 above

26) St. prp. nr. 1 (1945-46);in Dokument 10 (1946) pp. 5-6; St. meld. nr. 32 (1945-46) p. 7; Innstilling for Forsvarskommisjonen av 1946, Del. 1, Oslo, 1949, pp. 34-37

NOTES (3)

27) Press release from MOD Norway on the recommendations of the "Boyesen Commission", dated July 14, 1955, pp. 5-6

28) St. prp. nr. 23 (1957), p. 7

29) Ibid, p. 15

30) Dokument nr. 10 (1957)

31) St. meld. nr. 26 (1958) p. 6

32) St. meld. nr. 28 (1960-61) p. 41

33) Ibid, p. 42

34) Johan Galtung, "Foreign Policy Opinion as a Function of Social Position", Journal of Peace Research, I (3-4), 1964, p. 229

35) Stortingsforhandlinger 1961-62, Del 7, s 2039 (Feb. 27,1962)

36) Stortingsforhandlinger 1963-64, Del 7, s 295 (Oct. 29, 1963)

37) Stortingsforhandlinger 1963-64, Del 7, s 296 (Oct. 29, 1963)

38) St. prp. nr. 28 (1968-69)

39) Stortingsforhandlinger 1968-69, Del 7, s 2036 (Jan.22, 1969)

40) Aftenposten, March 4, 1971, p. 18

41) St. prp. nr. 128 (1967-68) and Rapport från Den nordiska samarbetskommitten för detektionsseismologi, Stockholm, 1969

Holst