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FOREIGN NAVIES AND ENVIRONMENTALISM

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The environmental legislation of some fifteen nations - Latin American, Asiatic, North American and European - was studied and placed into a perspective related to the environmental policies of the military of those nations. The effectiveness of the legislation is measured quantitatively and in area matters, and related to the development of naval environmental research and development.

This paper highlights the structure of the environmental decision making

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20. process, effectiveness of the national environmental legislation, and the interaction of government policy, Environmental Research and Development and the Navy. It also emphasizes the existent dilemmas between environmentalism, pollution abatement and various other aspects of national security.

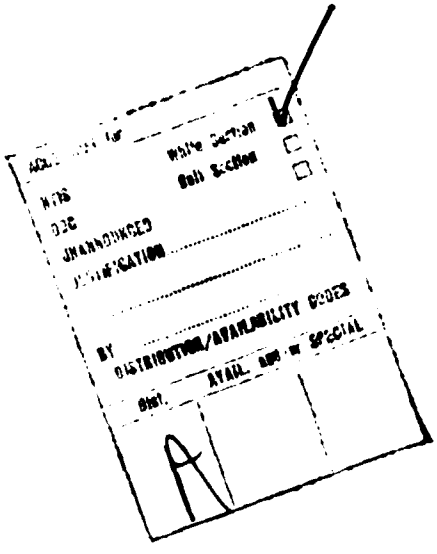


Table of Contents

INTRODUCTION

In view of limited time and funds, and the possibility that success still might not be achieved, a research design was adopted which involved a good deal of correspondence, many telephone conversations with foreign embassy officials and United States Defense Attaches abroad, a number of interviews, and some dependency on the author's experience and knowledge in the field which was derived from study at home and aborad, including travel in a number of the nations listed in the study.

The first problem to be settled related to the designation of nations whose navies were to compose the study. Twelve nations from the Western Hemisphere, Europe, and the Pacific region were selected. These included both major and less than major naval countries. In view of limitations of time they had to be nations from which the necessary information could be obtained.

The second problem involved the composition of variables, both dependent and independent, which were to be included in the project. In an effort to settle this approach, topics were developed to bring out the variables reflecting the foreign naval environmental policies. These topics were:

1. Amount of money budgeted for pollution abatement by the navy in 1975.

2. Amount of money budgeted by the navy for research

on the environment, if the navy undertakes such research. If not, who does?

3. Does the navy have an input into the national pollution abatement decision-making process? (Is it consulted before pollution abatement legislation, which may affect the navy, is enacted?

4. How much was budgeted by the government for environmental matters in FY 1975? (Sometimes the term Quality of Life is substituted for environmental matters.)

5. Any other information related to national and naval pollution abatement policies.

The third problem faced was that of contacting the specialists on naval environmentalism in the nations selected. Communication with the Deputy Director of the Defense Intelligence Agency (DIA) settled this problem nicely. Requests to our defense attaches in the selected nations could be processed through the DIA whose stamp of cognizance would facilitate and expedite the communications. Cover letters and topics were dispatched to the United States Defense (Naval) Attaches in the countries listed via the Deputy Director, Defense Intelligence, whose jurisdiction over our defense attaches is one of his essential reponsibilities.

Upon receiving my requests, the attaches generally communicated with the proper authorities of the foreign navies. As a result, the replies were returned to me by the

attaches directly and/or by the foreign specialists involved and also by the foreign embassy naval officials in Washington.

As a back-up approach, the foreign exchange officers on duty at the Naval Academy were informed of my inquiries related to their countries and they volunteered to assist in retrieving the information requested. The efforts of the exchange officers were very helpful, particularly when information from the foreign countries seemed to be delayed.

PART I

THE OVERVIEW

I. National Legislation on Pollution Abatement

The following countries are included in this study: Australia, Belgium, Brazil, Canada, Denmark, German Federal Republic, Great Britain, Japan, Mexico, Nationalist China, and Sweden. All the nations studied have national legislation on Clean Air and Water. A small number, i.e., Japan, the German Federal Republic (GFR), and Great Britain, in addition have enacted national legislation on noise abatement. The environmental policies in most of these nations are administered through a recently created Ministry of Environment, which with few exceptions is an independent agency, and in several countries by the Ministry of Health. In the GFR the administering agency is the Department of the Interior and in Australia the Department of Agriculture.

A. Effectiveness. The results of the national environmental legislation of the countries surveyed are still open to question. In many instances the legislation is too recent for an assayance of judgment. On the whole, it is felt that this national legislation has not been as effective as purported. There are several reasons for this situation.

1. Lack of implementation measures
2. Insufficient punitive measures
3. Fear of cost of enforcing the environmental laws
4. Greater desire to support industrialization

5. Inability to perceive pollution abatement as a long-term value.

The factors cited above when added to the contemporary character of the national legislations leads to the conclusion that the effectiveness of said legislation is questionable. It will continue in that purgatorial state as long as most of the factors remain as prevalent as they are presently.

II. Pollution Abatement Policies and Programs

A. Interaction Between Government Policy and R&D on Environment.

In each of the nations studied there does exist a national government policy on the environment as well as on Research and Development (R&D) on the same. In most of the countries, i.e., Canada, Japan, GFR, Denmark, and Sweden the national Environmental Protection Agency is responsible for all R&D on pollution abatement and the interaction between the two groups flows reasonably free because the R&D section is part of the National Environmental Agency.

In other nations such as Belgium, Taiwan, and Mexico, the interaction between government policy and R&D on the environment is less stable. In these countries there are national pollution abatement policies, but the R&D on environmental problems is carried out by other government and semi-government agencies. In Belgium the Office of Scientific Research conducts investigations of scientific problems including those of pollution abatement. The Taiwan government, with the Ministry of Health in the Department of the Interior as the administering agent of environmental policy, distributes all government sponsored scientific research among such offices as those of Academia Sinica (similar to the National Science Foundation in the United States), the Institute of Oceanography at the State

University of Taiwan, Central Meteorology, National Health Administration, and the Joint Commission on Rural Reconstruction. Pollution abatement R&D in Mexico is carried out by Petroleos Mexicanos, National Institute of Nuclear Energy, and the offices of the Secretaries of Health, Water Resources, and Environment. As one may easily perceive, the interaction between the national policy and R&D on environment is somewhat fraught with cumbersome and political hindrances in these countries, more so than in those in the first group of nations. The flow of interaction is increasingly muddled, almost in proportion to the number of levels between environmental projects and R&D related to pollution abatement.

B. Interaction of Government Policy, Environmental R&D and the Navy.

While much of this topic is covered in section A, there are several other points that should be acknowledged. The navies of most of the nations studied do not have separate R&D offices and budgets. Their R&D requirements are generally served through the national environment agency, a central science agency or designated science research institutions. Most of the R&D in military developments is related to weaponry and combat efficiency, and R&D in environmental matters is generally relegated to a secondary priority,

Canada and Japan being possible exceptions.

The navy presents its R&D needs in pollution abatement to the appropriate civil agency with the concurrence of the national environment office. The R&D funds of the latter are utilized to satisfy the pollution abatement requirements of the navy. The R&D environmental priorities are determined by the national environmental office and therefore the navy R&D proposals may be rejected or relegated to a level of importance lower than that desired by the navy. While the national environmental agencies are generally considerate of the requirements of the military, their determination of priorities is the final verdict.

There are several factors involved in shaping this type of policy. First, industrial and commercial pollution is much greater than that of the navy and the military as a whole, and thus affects by far more people than the pollution caused by any segment of the military. Secondly, industrial pollution involving the waste of land and marine resources is more critical than that of the navy. Thus, with limited funds available for environmental R&D, it is logical in most instances to relegate naval environmental requirements to a secondary level of priority. A third factor reflects that in most of the nations studied, the demands for conservation of natural resources have become loud and clear and have resulted in political clarion

calls for abatement policies. The voting power of the navy hardly compares to the political weight of those who desire pollution abatement priorities to be channeled in other directions. Besides, any environmental R&D aimed at "cleaning up" the waters would also involve in some degree aspects of naval R&D.

In just about all of the nations studied, the navy is consulted before legislation which may effect it is introduced. The naval recommendations, however, may not be accepted or even considered, although in Canada, Japan and Belgium the naval reaction is an important determinant in the decision-making process.

The conclusion here is that most navies are environmental minded, although combat readiness, involving at times pollution, is the highest priority. Where a navy has its own R&D sections, there is a closer interaction between governmental policy and R&D on the environment. This results in a faster implementation of government environmental policy. Exceptions to this conclusion exist in Canada, Japan and Belgium where the interaction between government and navy in environmental matters, including R&D, is close.

C. How the Navy Implements Government Policy

Generally, the navies of the nations studied implement government environmental policy in three major ways. First,

they are bound by the national legislation on pollution abatement, unless definite exceptions have been made for them. Then they, along with the equivalent of our Coast Guard where such a force exists, police the coastal and nearby waters for violations of environmental policy. In Brazil the Navy uses a portion of the funds, derived from fines paid for violations of the Marine Traffic and Water Pollution Laws, for R&D on pollution abatement. Thirdly, the navies in attempts at implementing national policy, seek to eliminate their own pollution by avoiding oil spills and improving sewage disposal systems aboard ship and naval land installations.

In such nations as the German Federal Republic and Australia, where the national pollution abatement programs are fragmented because of the priorities of states' jurisdiction over such programs, the navies can only implement national government policy in territorial waters. Most navies have an input into the decision-making process related to environmental legislation that could affect them, some institutionally, i.e. Belgium and Canada as examples, and others at the option of the national environmental agency. All of the foreign navies have the right to seek exemption from environmental restrictions deemed detrimental to the combat capability of the navy.

D. Existing Dilemmas

1. Environment Control vs Combat Effectiveness. In the nations studied, Canada and possibly Japan being exceptions, preparation for successful combat has the highest priority even when there are conflicts with national pollution legislation. Hence, unlike in the United States, Canada, and probably Japan, unless at war, this dilemma is easily perceived and solved so that one may wonder if it is a dilemma at all.

2. Expedience vs Long Range Development. Until 1973 most of the nations listed in the study created policies aimed solely at industrial and commercial intensities. With the advent of economic strains and resultant increased unemployment, the leaders of these countries accentuated their efforts in the directional avenues of affluence as an immediate political and economic expediency. The utilization of effective environmental control legislation aimed at clean water and pure air -- thus a long range view of use of natural resources--was sacrificed on the altar of immediate economic needs and employment. Little recognizance was given the idea of possible employment expansion to be derived from new effective pollution abatement programs which would have also promoted the utilization of natural resources on a long range developmental basis. The political phenomena, however, in these nations would have provided

a demise to those leaders advocating the long range approach when money and employment were immediately needed.

3. New Weapons vs Discharge of Wastes. There were no indications that the creation of new firing systems were hindered by national or local pollution abatement legislation. Through consultation with naval officers of a number of the countries studied, the assertion is that because of the high priority allotted to combat effectiveness, a new weapons system, if a good one, would prevail over national pollution legislative constraints. Even in France (not covered in this study), where there is much new stress on the Quality of Life (pollution abatement) all efforts in the military are directed toward combat effectiveness with little actual concern for the environment.

P A R T II

FOREIGN NAVIES AND ENVIRONMENTALISM

AUSTRALIA

General

As in the case of so many other foreign countries, environment legislation as well as control of air and water pollution in Australia are the responsibilities of the states. A Federal Department of Environment and Conservation has been created but merely to settle legal problems related to environmental policies and programs of the states.

While similar legislation on pollution abatement exists in each of the six Australian states, the laws, policies, and punitive measures for violations are not uniform. Clean air specifications and regulations for prescribing emission limits vary somewhat from state to state.

The Australian Navy and the Environment

Like Belgium and several other nations for example, there is no provision in the budget of the Royal Australian Navy (RAN) that exclusively treats pollution abatement problems. The Australian budgetary system is based on specific treasury appropriations and a category of expenditure for pollution abatement does not exist. Hence even though the Navy, in common with other Australian and State Government Departments would spend considerable sums of money annually on pollution abatement, it is not possible, even on a broad order of costs basis, to quantify the amounts involved.

In view of the above the Royal Australian Navy, therefore, does not budget specifically for pollution abatement even though functional areas concerned include the Supply Division, Naval Technical Services, and Accommodation and Works. It follows logically that the RAN does not have available to it funds for research on pollution abatement, nor does it undertake such research. Such investigations are conducted by the Commonwealth Scientific and Industrial Research Organization, Universities, and the Department of Manufacturing Industry. Private research groups are seldom used.

The RAN is generally consulted before environment legislation which may affect it is enacted and generally seeks, if necessary, exemption but from a legal viewpoint. In practice, however, it conforms to any legislation enacted.

The current budget estimate for the Department of Environment and Conservation is estimated at 4,000,000 Australian dollars ($1.26 equals 1 Australian dollar), but amounts expended by the Commonwealth Scientific and Research Organization, Universities, and other Australian and State Departments are not known.

References:

Letter, B.T. Sutherlin, Capt, USN, U.S. Naval Attache Canberra, Australia, 19 August 1974.

Bureau of National Affairs, International Environmental Guide, Washington, D.C., 1974, pp 81:0101-2.

Cablegram, LCDR D.J. Campbell to Naval Attache, Australian Embassy, 15 Aug. 1975 to Professor Paone via LCDR D. Caton, RAN (assigned to USNA).

BELGIUM

General

Until recently the Belgium government has had a fragmentary approach to national environmental matters. Under the jurisdiction of the Ministry of Public Health and Environment a number of pollution abatement laws related to Protection of Surface Waters Against Pollution (1 Mary 1971), Protection of Ground Water (26 March 1971), Sea Water Pollution through Hydrocarbons (26 July 1962), Fight Against Atmospheric Pollution (14 January 1965), and Noise Control (18 January 1973). Because poor administrative coordination, inadequate enforcement and implementation of policies, the effectiveness of this legislation left much to be desired. Presently, the Schelde River with its stenching odors and marine habitat killing deposits is an outstanding example. Today the whole environment program is being reorganized with the purpose of placing it under the Secretary of State for Environment of Life. Budget figures are not available.

The Navy and Environment Funds

There is no provision in the Budget of the Belgium National Defense that exclusively treats problems related to pollution abatement. Although there are no specific budgets for environmental matters, the Belgium Navy is quite active in this field. During the last several years the Navy has spent annually some 18 million Belgian Francs ($486,486) in an effort to abate pollution of the sea.

The Navy does not undertake research on environmental problems. It does, however, cooperate with the Office of Belgian Scientific Research on a program aimed at abating pollution. The budget for this research program is approximately 8 million Belgian Francs ($216,216).

Because of its pollution abatement interests the Belgian Navy is permanently represented on the "Commission Interministeriale pour la Politique Scientifique" (CIPS) and on a committee of the Secretary of State for Environment of Life. The Navy, thus, is consulted directly before pollution legislation is enacted and does have a voice, often very strong, in the national pollution abatement decision-making process.

In summary, while the Belgium Navy has neither an environmental budget nor an environmental R&D program as such, it does spend almost $500,000 annually on pollution abatement and cooperates with the National Scientific Research Office on a program for abating pollution which costs over $200,000. Also, the Belgian Navy has a clear voice in the environmental decision-making process.

Reference:

Enclosure 1. of undated letter from CDR Lee Smith, U.S. Naval Attache, Brussels, Belgium, to Professor Rocco M. Paone received August 1, 1975.

BRAZIL

General

Just in the last year the government of Brazil created a National Environment Agency (NEA) under the Ministry of Interior. The NEA is still in the process of organizing its staff and budget which, including those Minister of Interior funds allocated to environmental matters, totals some 5 million cruzeiros or about $618,000 at the present rate. The government also has recently enacted Marine Traffic and Water Pollution Law.

The present Brazilian government policy on environmental matters stresses rapid economic development on the highest priority and any pollution abatement that might slow the pace is regarded as quite secondary. There is an admitted requirement for a strong national pollution abatement policy, yet a weak one exists. Nothing in the way of pollution abatement policy must "traumatize economic development" tated Francisco Fernando de Barros, State Secretary of Works. Viable technical and financial solutions must be found to curb pollution, but they are not to hinder economic development.

Pollution abatement laws and policies do exist in the individual states. Two Brazilian newspapers, O Estado de Sao Paulo and Jornal de Tarde, have awakened the people to

the deterioration of the quality of life due to excessive pollution, particularly in Sao Paulo.

The population in Sao Paulo exceeds nine million. In that city there are some 32,000 industrial establishments as well as two military and one commercial airports. The smog burns throats and eyes, kills birds, and withers plants. In a newspaper poll, it was discovered that 82 percent of the inhabitants in the city consider pollution to be a serious problem. The Director of the Sao Paulo State Environment Agency, Nelson Herfussi, has stated that the major causes of excessive pollution are the advance level of industrialization, lack of controls, and excessive population. Although stiff fines and imprisonment have been introduced in Sao Paulo in an effort to punish polluters, as yet these attempts at legislative control have not been implemented.

The Brazilian Navy and the Environment

Like those of many developing countries, the Navy in Brazil does not have a specific budget for pollution abatement. The financial resources available are obtained from forfeits and fines collected by the Naval Police from merchant ships and industries found guilty of contaminating the sea and rivers in violation of the Marine Traffic and Water Pollution Law. In cases of oil spillage the Brazilian Navy with financial support of the Ministry of Interior hires

private firms to remove the oil from the sea. When caught, the violators then compensate the Brazilian government for expenses incurred in addition to suffering punitive fines.

The Brazilian Navy does not have an R&D section, nor does it maintain a budget for research. It does, however, through its representative in the National Environmental Agency, participate in the decision-making process related to pollution abatement legislation that might affect it. The Navy is consulted on water pollution and works closely with the State governments through its Directorate of Harbors. In addition, the Director or Ports and Coasts and the Captain of the Port, as naval officers, head important water pollution enforcement agencies.

Rferences:

New York Times 16 June 1975

Conferences, Professor Paone and LCDR A. Pachecko, BN
Report from LCDR R. Keenan, USN, Ass't Def. Attache in Rio de Janeiro to Professor Paone 30 July 1975.

CANADA

General

The Canadian Government enacted a series of stringent Water, Air and Fisheries anti-pollution laws in 1968-70. To ensure Canada's proper management of its renewable resources and their proper development, the Department of the Environment was created in June 1971. Presently, responsibility for environmental protection is shared by the national, provincial, and municipal governments. The federal and provincial agencies receive their powers from the federal and provincial governments. The latter assign the municipalities their environment responsibilities along with their powers.

The Environment Budget.

The Department of the Environment is responsible for the environment budget which for FY75 was some $20,000,000.

The Canadian Navy and the Environment.

The Navy has a strong voice in the national pollution abatement decision-making process. There exists an inter-departmental working group, representing all agencies of government which are concerned with pollution abatement. This group is Chaired by the representative of the Department of the Environment and the Canadian Forces have a naval member. This inter-agency committee sets policy - it is much more than consultative-for all government activities

within existing laws and concomitantly affects pollution legislation both directly and indirectly.

The Canadian Navy does have a recognizable budget for pollution abatement and in FY75 some $350,000 was allotted. In FY76 it is planned to configure four destroyers with pollution abatement suits at an overall cost of $1,600,000. Also planned in FY76 is a $4,000,000 cleaning barge to service all combatant and auxiliary ships. It would seem, therefore, that pollution abatement costs for next year will be some $5.6 million.

The Canadian Navy does not have a separate budget for research and development. However, it is actively involved in R&D in the following way: Basic environmental research for the Canadian Navy is undertaken by the Department of the Environment with some assistance from the Defense Research Board (DRB) of the Canadian Department of Defense. The type of naval environmental R&D required under the national laws is decided by the Canadian Navy. At the proposal of the Canadian Navy both the Department of the Environment and the DRB are conducting tests on vacuum collection and incineration of sewage (naval vessels), wet oxidation, and oil/water separators. While there is no regular R&D budget for the Canadian Navy the financial "father" of the Canadian Navy R&D is the Department of the Environment.

The Canadian Navy is much involved in evaluating the results of the research and testing of the various sewage

treatment and wet oxidation processes aboard warships. Officers are responsible for the evaluation of these systems and they have confirmed the practicality and acceptability of vacuum collection and incineration of sewage. Product improvement, according to Canadian Navy officers, is expected to "produce a reliable system which will enable Canadian warships to meet the occasional requirements for no-discharge of sewage." The Canadian Navy, however, follows the U.S. Navy concept regarding sewage treatment in that a "moving ship in open water is non-pollutant." The sewage treatment policy of the Canadian Navy operates in the following modes:

(a) in the open ocean - discharge overboard.

(b) in territorial waters - hold and discharge to shore facilities or incinerator if shore facilities do not exist.

(c) shore connections will be fitted with adaptors to match the standard four-inch flange and quick-disconnect fittings.

The Canadian Navy is attempting to comply with the "no sheen" policy regarding oil pollution (i.e. less than 20 pp no oil in water). It is attempting to improve oil water separators and monitors to permit "fitment of systems in the Fleet to satisfy the 'no sheen' concept."

A program for installing pollution abatement systems throughout the fleet will cost $40 to $50 million and take 10 years to complete.

References:

Letter Maj. David A. Wright (CAF) to Professor Paone, 24 June 1975.

References (continued)

Telephone conversation, Paone to Ralph King, Environmental Section, Canadian National Defense Headquarters, 25 June 1975.

Up-date of Canadian Forces (Sea) Programs for Evaluation of Pollution Control Systems as of 1 June 1975.

DENMARK

General

Since 11 April 1949 Denmark has had a Water Course Act (No. 214) which regulates the flow of sewage and other waste discharges into lakes, streams, and coastal areas. In April 1969, the Water Supply Act was enacted to protect water used for drinking and other purposes and to set up regulations regarding septic tanks and underground oil tanks. Since that time the Danish Government has enacted further legislation on water and air pollution abatement.

To administer and coordinate the environmental policy on a national scale, the government created in 1971 the Ministry of Environmental Protection (MEP) which consists of a secretariat, control, planning, and development bureaus, and an office on environmental protection, all staffed with specialists in the relevant fields. Local responsibility for environmental protection lies with municipalities and the various health boards.

Environment and the Danish Navy (DN)

The working expenses for the Ministry of Environmental Protection for the 1975/76 Fiscal Year were budgeted to the amount of D. Kr. (Danish Krona) 150 million. On the basis that 5.78 D. Kr. equals one dollar, the the 75.76 budget is almost $27,000,000. Of this amount, some D. Kr. 40 million ($6,920,000) was allocated for specific environmental

protection projects.

The DN does not have a separate pollution abatement fund and therefore no money is budgeted for pollution abatement by the Navy or the Defense Department. The budget of the Ministry of Environmental Protection covers the environment requirements of the DN. The Navy places ships and crews at the disposal of the MEP which reimburses the Navy for any expenses connected with abatement exercises. For FY 75/76 the MEP has an appropriation of D.Kr. 2 million ($345,000) towards abatement of pollution at sea, i.e., oil and chemicals.

The DN is not involved directly in any research on pollution abatement. However, as in the case of Canada, the DN does propose environmental research projects related to pollution abatement policies that obligate the Navy. The MEP assumes the responsibility of this research and the Navy that of testing and evaluating the results. For FY 75/76 the MEP has an appropriation of D.Kr. 5 million ($862,000) toward research in pollution abatement in the Belts region.

Generally speaking, the DN hardly influences the national policy on environmental protection matters, although it is consulted--this is not an institutional process--before pollution legislation which may require the Navy's assistance is enacted.

References:

Bureau of National Affairs, International Environmental Guide, Washington, D.C., 1974.

References (continued)

Letter, Gunner K. Kristensen to LCOL George Welsh, 15 July 1975. CDR Kristensen is a Danish Naval environmental specialist and Col. Welsh is U.S. Naval Attache in Copenhagen, Denmark.

GERMAN FEDERAL REPUBLIC

General

The Department of the Interior is the administering agency of national environmental policy in the GFR. National laws cover air, noise, and water pollution. The ten states (Lander) that compose the GFR have pollution abatement laws, like our own states, within the basic spirit of the national environment laws. In fact, the Lander probably shoulder heavier responsibilities for the protection of the environment than the federal government. Each Lander has small vessels, under its jurisdiction, to police rivers and seas within the three-mile limit for violations of its own environmental laws. Beyond the three-mile limit, the GFR Navy has the responsibility for protecting the pollution abatement policies.

Environment Budget

The GFR budgeted some $240 million in 1975 for environmental matters nationally. Of this amount some 73 percent went for water, air, and noise pollution abatement, a bit less than ten percent for waste disposal and land protection, and the remaining seven percent for "all others."

The GFR Navy and Environmental Budget'

The GFR Navy does not have a budget for any pollution abatement. Standards imposed on new equipments are paid for from funds allocated to these equipments. Thus, when national

environmental constraints require the Navy to purchase mechanisms aimed at pollution abatement the Navy merely includes the cost of this equipment in its budget and this expenditure is not regarded as environmental, but as Naval. The Environmental costs in the GFR Navy, therefore, are hardly identifiable.

The German Navy does not have a research and development budget, nor does it conduct an environment R&D program. The GFR, however, conducts research on environment, mostly via the German Research Association (Deutsche Forschungs Gemeinschaft-DFG)which is financed by the GFR, the Lander, and several private science organizations. Here again the funds for the national R&D effort come out of the general operating budget "without precise amounts allocated" and thus cannot be identified.

The GFR Navy, however, does have an input into the national pollution abatement decision-making process. Along with the other services it is consulted by a federal interagency committee before environmental legislation which may effect combat capabilities is introduced.

References:

Letter, Capt. E.B. Rogers, Jr., USN, Naval Attache, GFR, to Professor R.M. Paone.
Interviews with LCDR Dieter Seebens, GFRN.
Umwelt Politik, Heraugeber: Presse-und Informations amt de Bundesregierung, December 1974.

GREAT BRITAIN

General

The administering agency for British environmental policy is the recently created Department of Environment (DE) which combines the former Ministries of Housing and Local Government, Public Building and Works, and Transportation. The responsibilities related to national environmentalism are quite diffused. The DE is charged with the regulation of many aspects of air and water pollution and noise abatement, but other government agencies also responsible for protecting the environment include the Ministries of Agriculture and Fisheries and Food, the new Department of Trade and Industry, and the Department of Agriculture for Scotland.

The Navy and Environmental Funds

The national environmental budget covering the period of 1970-1975 was over £1,000,000,000. This figure includes expenditures of some £5,673,000 on noise abatement, clean air, water pollution abatement, waste disposal, natural resources and conservation. Some £2,214,000 of this sum was expended on noise abatement, clean air, and waste.

The environmental R&D budget for FY 1975 is £25,216,000. Such research groups as the Centre for Environmental Studies, Royal Institute for Public Administration, Local Governmental Operational Research Units, and several other received £1,443,000 and about £350,000 were allocated for R&D on ports and harbors.

The Royal Navy does have a distinguishable environment budget which for FY 75 was £320,000. It does not, however, have an environmental R&D budget, nor does it conduct R&D on its own environmental projects. R&D related to naval environmnetalism is conducted on a "piecemeal" or as-needed basis. Funds for research on such items as oil separation and shipboard waste disposal are obtained from the overall naval budget--as needed. Naval environmental research is sponsored by other government departments, notably those of Environment and of Trade and Industry as well as by such research groups as those listed above.

While it is considered that the Royal Navy has little influence on environmental decisions that may effect it, it does participate in the decision making process through representation on a Defense Service Committee called Working Party on Waste Disposal. A member of the Defense Secretariat (DS) who represents the Permanent Under Secretary of State (PUSS) is also a member. The efforts of the Waste Disposal Committee are channeled through the DS-5b, who is the senior science officer and also handles naval policy related to international affairs, to the Defense Secretariat and the PUSS who makes the final determination.

References:

Survey of Current Affairs (Environmental Pollution), March 1971 to January 1975.

Department of Environment, Report on Research and Development, 1974, London, Her Majesty's Stationary Office.

Excerpts from "Public Expenditure to 1978-1979."

Letter from CDR C.J. Dykeman, USN, DAO, London, to Professor Paone, 15 August 1975.

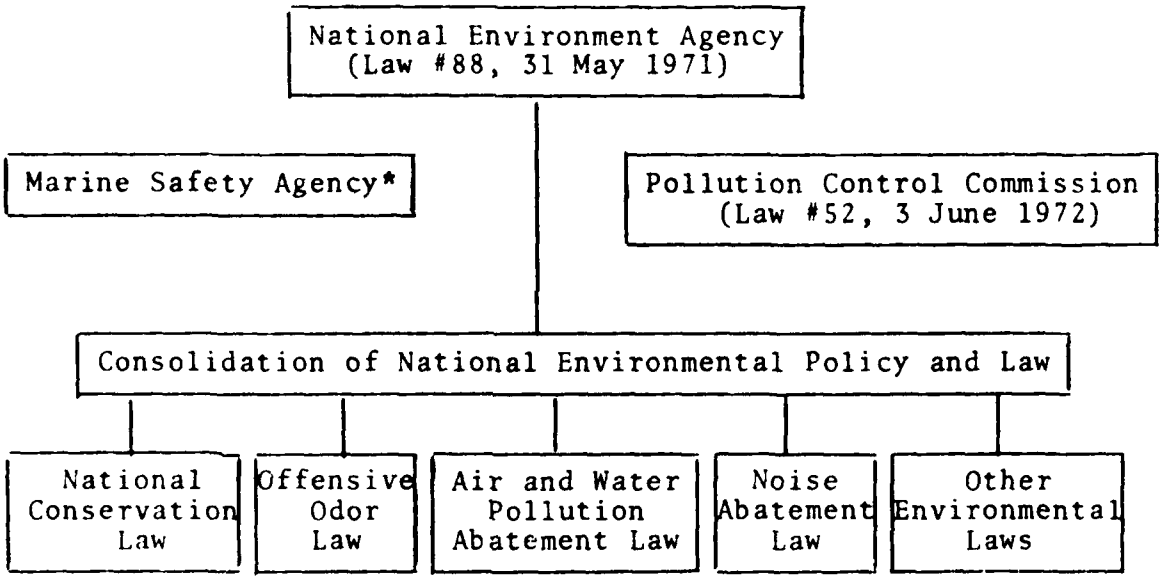
Telephone conversation, Professor Paone to CDR Schepley, RN, 12 August 1975

JAPAN

General

From World War II until about 1960 the problem of pollution in Japan was considered to be local and not one that seriously affected the entire country. Individual provinces or prefectures, enacted ordinances related to factory pollution regulations, noise prevention, soot and smoke prevention, among other pollution abatement laws. As one result of the Korean conflict with its special procurement boom in Japan, industrial pollution became a nationwide problem and the national government initiated a positive pollution abatement policy by enacting such legislation as the Industrial Water Law (Law #146, 11 June 1956), Pure Water Laws (Law #181, 25 December 1958, and Law #182, the same date), National Soot and Smoke Law (Law #146, 2 June 1962), and the Noise Regulation Law (Law #98, 10 June 1968). Under the 64th (Extraordinary) Session of the Diet in 1970, passage of environmental legislation was speeded and six new national legislations were enacted. These included laws on Pollution Control Public Works Cost Allocation, Waste Disposal and Public Cleaning, Marine Pollution Prevention, Punishment of Crimes Relating to Environmental Pollution, Agricultural Land Soil Pollution Prevention, and Water Pollution Control. Because of the stress of industrial output and lack of machinery for coordinated enforcement of these laws, pollution in

Japan grew increasingly more complex and diverse. Finally in 1971, the National Environment Agency was created (Law #88, 31 May 1971) to organize and centralize pollution control administration. Shortly thereafter, a pollution control commission was created (Law #52, 3 June 1971) and empowered to investigate and settle, via arbitration, disputes over pollution. A suggested picture of the National Environment flow is as follows:



While the Environment Agency is responsible for administering the pollution abatement policies of the nation and the local prefectures and municipalities are bound by the national edicts, the political subdivisions in Japan may increase the

*Handles pollution abatement violations along co stal and river waters. Is under Department of Transportation.

stringency of the national legislation to suit local conditions, but may not lower the environmental standards fixed by the national government.

National and Defense Forces Environment Budgets

The appropriation related to environmental preservation in 1973 was Y274,405,000. Figuring on the basis of 300 Yen to the dollar, then that budget was a bit over $914,683. Of this amount some Y20,540,000 were allocated to the Japanese Defense Forces. This figure was about Y45 million greater than the 1972 amount allocated to the Defense Forces.

The FY'75 national budget for environmental protection was Y100 million over the '73 amount and some Y35,458 million over the FY'74 appropriation. The environmental budget of the Defense Forces was increased to Y24,438,000. As in a number of other nations, this budget is not divided according to service.

The pollution control R&D budget for FY'75 totaled Y24,880,000, an increase of some Y7 million over the FY'74 figure. This budget supports all of the national activities, including those of the Defense Forces, related to environment R&D. Much of the naval research in environmental matter is performed by the newly created National Institute for Environmental Pollution Research. The budget for this office in FY '75 was Y1,342 million or some $4,473,333.

In 1973 the Japanese Maritime Self Defense Force (JMSDF) spent over $780,000 on Environmental Research and Development, in 1974 almost $900,000 and in 1975 it is estimated that the JMSDF will expend almost $1,250,000 in this area, even though it does not have a structured R&D program of its own. It is to be noted that the Maritime Safety Agency, similar to our Coast Guard and under the jurisdiction of the Department of Transportation, as is the Coast Guard in the United States, is responsible for policing and controlling oil spills along coastal and river regions. Its FY75 budget for clean-up projects was set at approximately $50,000. To implement execution of its pollution abatement functions, this agency has three refuse cleaning and two oil recovery boats, oil fencing equipment, patrol boats and some aircraft. During 1973 along the officers of this Maritime Safety Agency brought about some 2,000 arrests for violations of the laws on marine pollution. Over 1,100 of these offenses were for illegal discharge of oil and wastes.

Although the JMSDF threat to the environment is considered minimal, the Defense Forces fall under the environmental jurisdiction of the National Environmental Agency in that they must adhere to the pollution control standards. To cite an example related to noise abatement: "In areas around airports used by the Self Defense Forces, etc., efforts shall be made to attain and maintain the environmental quality standards...as those for the category of public airports

under similar conditions...considering the average number of landings and take-offs, type of aircraft and concentration of houses."

The MSDF cooperates closely with the Maritime Safety Agency (MSA) in pollution abatement related to the sea and often assists the latter in patrolling coastal waters to identify areas of contamination and arrest violators of the pollution abatement laws.

The MSA is the leading agency for anti-pollution activities, consisting as it does of the Maritime Pollution Control Division, Chemical Analysis Division, MSA Research Center, Marine Pollution Research Laboratory and a Hydrographic Department. It has jurisdiction over the eleven Maritime Pollution Control Divisions into which Japan has been recently divided. To facilitate the achievement of its objectives, the MSA has:

1) An oil pollution detecting device which is carried aboard an aircraft for detecting oil spills at night by infrared rays. There are three such devices.

2) Two radioactivity monitoring boats.

3) Ten pollution surveillance and control boats.

4) Two oil boom extenders to prevent oil spillage spreads.

5) Two oil skimmers.

The MSA has concentrated its main research on ocean pollution brought about by chemicals and oil spillages dangerous

to human and marine habitat.

The total budget for the MSA anti-pollution activities in FY 1975 was in excess of 370 million yen.

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MEXICO

General

The basic environmental stress in Mexico has been, since 1954, the protection of marine life within the framework of the IMCO and other international agreements, While environmental policy is administered through the Ministry of Health and Environment Protection Agency (EPA), it is formulated by the Secretary of Water Resources, Department of the Federal District, and Petroleos Mexicanos, in addition to the Secretaries of Health and EPA. The Secretary of the Mexican Navy must therefore, collaborate with the Secretary of State and the above listed departments in order to comply not only with domestic legislation on pollution abatement but also the provisions of international conventions that relate to environmental protection.

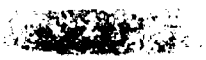
Still there are additional agencies involved in the environmental arena. The General Staff of Oceanography and Marine Survey undertake studies on marine pollution and also maintain a full inventory on the Mexico's marine resources. The Secretary of Industry and Commerce, through the Under Secretary of Fisheries and the National Institute of Fisheries, is responsible for monitoring fishing resources and evaluating programs related to their conservation.

The Mexican Navy (MN) and National Environmental Policy.

The Mexican Navy is charged with the responsibility of policing coastal waters for violations of pollution abatement policies and regulations. It renders technical advice to all other government agencies on the Mexican posture related to marine pollution abatement and recommends adoption of certain national measures for protection of the seas. Along with Petroleos Mexicanos it assists in the treatment of waters near ports and maritime terminals which have been contaminated by the process of flushing out the tanks of oil tanks. In collaboration with the National Institute of Nuclear Energy the navy monitors possible detection of any indications of radioactive contamination in Pacific waters which could result from atomic testing executed by the French in the South Pacific.

Presently the Mexican Navy is assisting the government in drawing up necessary rules related to the control of dumping of permitted substances in the sea and deciding the sites selected for this dumping. It will also monitor these areas, once they are selected.

The Secretary of the Navy participates actively in the environmental policy decision-making process, particularly where marine life is concerned. The MN is consulted directly along with representatives of other agencies possibly related to the impending legislation.



The MN and the Environmental Budget.

Generally, no specific amount of money is programmed by the MN to abate marine pollution as such. In the event of emergencies, each Secretary (Health, Environment, Navy, Fisheries, etc.) is empowered to use the financial resources of his (her) office.

Also, since there are various Secretaries of State involved in environmental pollution control, one cannot realize the total funds budgeted in the national program without requesting this information from each of the agencies concerned with pollution abatement.

During this present year (1975) six oceanographic cruises will take place on both sea coasts. Studies related to pollution and marine life, led mainly by the MN, will be conducted in the Ports of Cabo San Lucas, B.C.S., Puerto Vallarta, Jal; and Lazaro Cardenas. The cost of these investigations is estimated at 3,000,000 Mexican pesos or about $250,000. In 1974 the Mexican Navy expended some $900,000 on environmental research. Although there is no figure for such a purpose, it is considered the MN will have expended more than $1,000,000 in 1975 - mainly on pollution abatement to preserve marine life.

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NATIONALIST CHINA

General

The Republic of Nationalist China has recently enacted Clean air and Water Acts and placed the administration and implementation of both under the new Ministry of Health in the Department of Interior. While the government and the people are deeply concerned with pollution abatement, the priority of their interests lies in military and industrial security.

The Environment Budget

In FY 75 the amount of money budgeted by the Chinese government was NT $30,000,000 for air pollution abatement and NT $14,000,000 for water pollution abatement. The new Taiwan dollar (NT$) is 38.5 to the U.S. dollar. Thus, the NT $44 million is the equivalent of $1,145,454.

The following offers examples and costs of research projects:

1. Water pollution abatement of Keelung coastal water, from August 1971 to July 1972--about NT $403,000.

2. Water pollution abatement of Keelung Harbor and vicinities from August 1972 to July 1973--about NT $842,000.

3. Water pollution abatement of Kaoshiung Harbor and vicinities, from August 1973 to July 1974--about NT $739,400.

4. Pollution studies on shellfish cultivating area along the west coast of Taiwan, from October 1974 to

September 1975--about NT $800,000.

5. Ecological and environmental study of the northern coast of Taiwan, from July 1974 to June 1975--about NT $778,000.

6. Ecological and environmental study of the Southwestern coast of Taiwan, including Peng-hu region, from August 1975 to July 1976--about NT $320,000.

The Chinese Navy and Fnvironmental R&D.

The Nationalist government recently created a Council of National Research, commonly known as Academia Sinica, to engender scientific research, including that on environment and energy. The Academia Sinica is quite similar to the National Science Foundation in the United States in objectives and functions. Like other research agencies, such as the Institute of Oceanography of the State University of Taiwan , Joint Commission on Rural Reconstruction, National Health Administration, and the Central Meteorology Office, all of which are involved in environmental studies, the Academia Sinica receives its funds from the cabinet level National Science Council.

The Navy does have a small R&D section which is comprised of seven officers under the command of a captain. While the major interest is weaponry, this group last year did complete a study on pollution of coastal waters and presently is involved in land and ship waste disposal studies. Also, the Naval R&D section, along with the State University of

Taiwan, has initiated research on areas of waste disposal, i.e.,

1) recovery of sewage aludge and garbage as a resource.

2) determination of conditions under which ocean disposal of sewage sludge should be utilized; and

3) development of essential water critieria appropriate to water use, as a basi[illegible]r sewage treatment plant design.

The budget for the naval or Defense R&D is not available. In fact, the military budget is integrated with that of the Ministry of Foreign Affairs and as such it is hardly discernible. Until this past year Taiwan money to finance scientific research was completely dependent on the United States AID Program for financial support. Because this AID Program has been almost completely withdrawn, it is even more difficult for the country to finance R&D research. It is also to be noted that much of the naval R&D on pollution abatement in Taiwan is devoted to civilian maritime pursuits as well as those of the military.

While the Ministry of National Defense generally is not part of the national pollution abatement decision-making process, because of its efforts in water pollution abatement, the Chinese Navy generally is consulted before anti-polltuion legislation which may effect the Navy is enacted.

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SWEDEN

General

Pollution abatement responsibilities in Sweden fall under the aegis of the National Environment Protection Board (NEPB) which is responsible to the Minister of Agriculture, and the Swedish Concession Board for Protection of the Environment. The latter is also known as the Franchise Board. The pollution abatement program is federally oriented and covers Water and Air Pollution and Solid Waste Disposal programs--all on a national basis rather than on a fragmentary level of provincial jurisdiction.

The Royal Swedish Navy (RSN) and Environmental Policy.

The NEPB controls all funding related to pollution abatement . Presently, all new ships in the RSN are equipped with anti-pollution facilities, i.e., waste-oil tanks, sewage tanks, etc. The funds used in this pollution abatement program as well as those that finance installation of abatement mechanisms in older naval vessels are not extracted from the navy budget, but from that of the NEPB. Currently, some one million Swedish Krona ($.23 in U.S. money = 1 Swedish Krona) are expended annually to improve existing ships and other navy material from an environmental point of view.

The National Swedish Concession Board for the Protection

of the Environment (NATURVARDSVERKET) is responsible for environmental research on a nationwide basis. The RSN, however, carries out some research on environmental problems that peculiarly effect it, but on a comparatively small scale. At this time the RSN spends approximately 100,000 Swedish Krona annually on this research.

The RSN takes part in the decision-making process concerning national pollution abatement policies and programs and has a number of pollution abatement specialists who are at the call of the NATURVARDSVERKET. Records indicate that the RSN is always consulted with regard to legislation on pollution abatement when navy materials planning is foreseen to be affected by new laws or proposed changes in existing ones.

In FY 1975 some 600 million Swedish Krona were budgeted for the national environmental program.

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