

# **Future of Maritime Safety and Security Administration in Korea**

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## Abstract

The Ministry of Maritime Affairs and Fisheries embarked on Oct. 8, 1996, incorporating most of the previously fragmented maritime administrations into one single institution. But the maritime administrative functions related to safety and security missions have not yet been merged into a synergetic whole, with versatile multi-functional systems working so effectively that better services to the public might be expected. Enhancing administrative capabilities to meet future demands with limited resources requires that these missions be integrated into one institution and an enterprising management system be adopted to overcome bureaupathologies, such as complacency and inertness of administration.

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## **I. Introduction**

The Maritime Governance Administration can be classified into two categories; one, a development-oriented administration for fostering maritime industries such as shipping, shipbuilding, fisheries and marine resources, and the other, a preservation-oriented administration for managing safety of life at sea, protection of marine environment, and security of ports and waterways. The latter can be defined as Maritime Safety and Security Administration [hereinafter MASSA]. And its roles in Korea are supposed to contribute to the economic, social, environmental and military security by taking charge of ship safety, environmental protection, and ports and waterways security, in addition to the traditional marine policing, such as combating illegal activities of fisheries, immigrants and espionage.

The importance of enhancing MASSA capability cannot be overemphasized, considering both the geopolitical and geoeconomic characteristics of Korea:

- Korea is a peninsular country with a marine territory of about 447,000Km<sup>2</sup>, more than 4.5 times the land area.
- The dependence of the Korean economy upon international trade is very high, reaching 70 percent of the Gross National Product.
- Korea's transportation is also very dependent on the sea transport, reaching 99 percent of total trade cargo transported.
- The Korean flagged fleet increased to 6,972 thousand G/T in

1997, 12th in the world in terms of fleet size of national flag vessels.

●Goeconomically, Korea is a logistics center of Far Eastern Asia with axes at both Pusan and Incheon ports.

●Korea is also a major shipbuilding country, second only to Japan in the Far East.

But most of MASSA missions were fragmented by various agencies belonging to different Ministries without a lead agency for responsibilities as a whole.<sup>1)</sup>

This in turn brought about an inert administration suffering from a lack of technical skills and information, a shortage of funds and resources, and inadequate planning and decision-making processes. And also it leads to poor administration in many forms, such as counter-productivity, ineffectiveness, complacency and inertia.

Catastrophic disasters, such as sporadic oil spills, polluted the littoral area and coastal water. A ferry boat capsized, claiming 292 innocent lives in an instant. These could have been prevented, had MASSA performed in an integrated and efficient manner.<sup>2)</sup>

In an effort to enhance maritime administration capability, the Ministry of Maritime Affairs and Fisheries [hereinafter MOMAF] was established on Aug. 8, 1996. Accordingly most of MASSA missions were subsumed under this Ministry.<sup>3)</sup>

But MASSA functions under this Ministry are not yet integrated into a synergetic whole and they are performed fragmentarily by the headquarter of MOMAF and an extra-government agency, National Maritime Police Administration[hereinafter NMPA]. And the quality and productiveness of MASSA are not likely to meet the future

demands of national and international.

This paper deals with the current issues facing MASSA, theoretical background to the need for further integrating and streamlining of MASSA functions for the future demands in Korea.

## **II. Peculiarities of the Maritime Safety and Security Administration**

Unlike the development-oriented maritime administration, MASSA has the following peculiarities.

### **1. High cost of administration**

MASSA must be ready to respond immediately to any emergency and contingency at any time. Hence, for twenty-four hours and in all kinds of weather, surveillance systems must be operational. As most of these missions are supported by fleets and facilities, the operational charge is the most predominate one, amounting to about 70% of the total budget, as in the case of USCG.<sup>4)</sup>

### **2. Feasibility of sharing resources**

Most missions of MASSA are to be supported by fleets for on-the-spot jobs and consequently, they have a high feasibility of sharing resources between missions. Shared access to such administrative resources is quite beneficial, while allocating resources for one function is wasteful. Related to this, the statements made by Stubes brings us some suggestions; *'USCG functions are composed of a complex multi-mission such as maritime safety, maritime law*

*enforcement, maritime environmental protection and national defense. Some of these roles do not have sharp, clear-cut separations. Some of the missions and functions benefit more than one role, such as the port safety and security function. This function supports three roles - safety, environmental protection, and national defense. As a result, administrative resources cannot be designed for only one function; they must be capable of multiple functions'.<sup>5)</sup>*

### 3. Wide range of jurisdiction

As the administrative objectives of MASSA are complex with maritime activities, facilities, vessels and boats, marine resource, and other illegal activities, the range of MASSA jurisdiction is very large. It includes estuaries, ports, coastal zones and EEZ. The size of this jurisdictional area is about 4.5 times of that of Korea's land area.

### 4. International linkage of missions

MASSA has to act as the lead agency representing the nation at the International Maritime Organization(IMO) and other international maritime forums. MASSA is responsible for helping to achieve international compliance by developing cooperative solutions to environmental challenges facing the marine community. Environmentally sensitive activities, such as ocean dumping, hazardous waste disposal, and transportation of chemicals and fossil fuels, generate increased requirements for international oversight and national leadership.

Without mutual cooperation with neighboring countries and without compliance with international conventions, MASSA cannot effeciently

perform internationally linked missions, such as life saving and environment protection.

#### 5. Invisibility of administrative effectiveness

Because most maritime functions are performed at sea or on-the-spot, beyond the eyes of public, the effectiveness of maritime administrative actions are often not highly visible. This is one of the problems facing the maritime administrator who has to get support and cooperation from budgeting officials and other departments.

### **III. Context of Maritime Safety and Security Administration**

Most countries have their own unique systems that assume the missions of MASSA. The natures of these systems and their lines of authority are different from country to country, depending on their historical backgrounds and cultural traditions. But these systems fall into one of three general types of organizations; (1) integrated, (2) joint, and (3) fragmented. Each of them is discussed below.

First, in a type of integrated organization, all the missions of MASSA are performed by a single agency. The Coast Guards of USA and Canada and The Safety Agency of Japan may be the best examples of nations where most maritime safety and security functions are merged into a single agency which takes primary responsibility for the readiness, preparedness, and response to all of the administrative demands of maritime safety and security.

Second, in a type of joint institution, most of MASSA's activities are

done by the close corporation of maritime-related governmental and civilian organizations.

The UK, Australia and other small countries have Safety Agency focusing mainly on maritime safety policy development while the Coast Guard Corps or water police are responsible for on-the-spot implementation. One peculiarity these countries have in common is that the various government agencies can share navy resources for search and rescue and environmental operations.

Finally, in a type of fragmented system, on-the-spot missions are mainly performed by the maritime police, while policies are made by safety agency. Korea, Italy and Norway may be the best examples.

In Korea, NMPA focuses mainly on policing, search and rescue, and national defense as an auxiliary duty, while Marine Policy Office, an internal part of MOMAF, focuses on safety police-making, vessel inspection and licensing. Apparently, both of these organizations belong to the MOMAF, but intrinsically reciprocal cooperation and interdependence do not work in a seamless way in many aspects. This will be discussed in the next chapter.

In Italy and Norway, the Coast Guard Corps is a branch of the Navy, but it supports Ministry of Transportation. It is a highly professional and specialized organization carrying out not only military activities, but also maritime policing activities in cooperation with various national administrations.<sup>6)</sup>

#### **IV. Issues of Maritime Safety and Security Administration in Korea**

Because MASSA functions are divided among several different departments of MOMAF and NMPA, there are many loopholes of maladministration, such as inefficiency and ineffectiveness caused by fragmentation of functions, budgetary overlap, a vacuum of administration, and a lack of expertise.<sup>7)</sup> Each of these is discussed below.

##### **1. Fragmentation of functions**

Most of MASSA functions have the same purposes and processes, and possess similar type of facilities in allocating resources. For instance, port safety and coastal waterway management have some functional overlap in practical operation, and a large degree of versatile resources can be made available for these functions.

Nevertheless, in Korea, the authority and responsibilities for these functions are assumed fragmentarily; port safety is overseen by Port Policy Bureau of MOMAF, while coastal waterways are done by NMPA. This, in turn, brings about symptoms of maladministration such as a vacuum of traffic control administration and the frequent duplication of labor and expenses. This fragmentation creates a demand for another instrument for traffic control, disregarding the potential of the existing NMPA.

Similarly, maritime accident investigations are performed by two different agencies. Maritime criminal investigations are carried out by



NMPA, while maritime accident inspections are handled by the Maritime Investigation Board of MOMAF. As the authority and responsibilities for these functions belonging to different bodies, ineffectiveness and inefficiency in an investigation are inevitable. This results in public discontent that a suspected person has to respond to multiple investigations for a single accident. This redundancy impedes the flow of information and impairs comprehensive and accurate investigations. These problems leave the door open for similar iterations of such maritime disasters.

These are the examples of bureaucratic redundancy that arouse feelings of indifference and insecurity among citizens, and contravene the "people first" program.

## 2. Overlap of budget

Many patrol boats and cutters are given their respective missions by various agencies. The buoy tenders are exclusively charged with managing navigational aids, surveillance boats with policing illegal activities, and fisheries guidance cutters with taking care of the fishing fleet because each of them belongs to a different department, even though they are all under the roof of MOMAF. None of them has the latitude to act outside of their specific jurisdictions. For instance, buoy tenders are not able to take immediate action on oil spills or immigrants, even if they recognize them on sight because only NMPA is responsible for these missions. Such a lack of flexibility and cooperation in capitalizing on resources between different bodies results in an overlap of spending and jurisdiction, and leads to ineffectiveness and inefficiency.

Had these patrols and cutters been given greater operational latitude, they could have responded to incidents at the outset and saved time by using on-hand resources. Had MASSA introduced a versatile multi-mission system so as to use resources in a more effective and efficient fashion, they could have avoided redundant expenses and achieved a 'lean and mean' government, as described by Miranda.<sup>8)</sup>

### 3. Vacuum of administration

When closely related missions are operated separately by different departments, there arises a dead zone of administrative activities. The accountability between departments is not always clearly defined by laws and regulations, so each office is likely to simply attend to the letter of its own law, rather than the results produced by each body. This kind of systemic flaw leads to an administrative vacuum.

One of the examples is the administrative vacuum in harbor management. While NMPA is responsible for the safety of the outer harbor, the Bureaus of Port Policy and of Port Construction under MOMAF take care of the inner harbor, mainly focusing on managing ports in an economically-oriented way. Therefore, there is no leading agency which is responsible for traffic monitoring, port safety and security as a whole.

### 4. Lack of expertise

Traditionally and practically, the culture of governmental administration in Korea has been a generalist-oriented one, with hostility toward technology. The classical recruiting system, 'Godoonggosi' designed for qualifying examination for government

service personnel has opened only for social science-oriented individuals. And their short term interval-transferring from position to position has been discouraging them from being administrative professionals in any field of missions.

In addition to such malpractices of traditional recruitment, MASSA has particularly a large degree of unbalance and inadequateness in staffing its organization, and has a peculiar organizational culture where most of the high ranking positions are not to be occupied by technical people. This began when a large number of maritime technology-based personnel quit their jobs to enjoy higher salaries in seafaring jobs in the late of 1960's, and their vacancies were filled by generalists. Once those technicians were seen to be less reliable than the generalists in terms of patience and perseverance in adapting land-based administrative jobs, the recruiting door for the former became narrower. There is probably no quick fix for this vicious reactionary circle. The conflicts within this organizational culture is one of the reasons why MASSA has suffered from a lack of expertise to this very day.

## **V. Future of the Maritime Safety and Security Administration in Korea.**

Taken all together, the peculiarities of MASSA missions, the increasing demands and decreasing budgets and resources, it can be suggested that all MASSA missions be integrated into a single organization, introducing a multi-mission system, enhancing professionalism, adopting a total quality management system, and

overcoming complacency and inertness within the organization. Each of these is discussed below.

### 1. Multi-mission system

In a developed democratic country, austerity of budgets and resources is getting inexorable in any of the government agencies. Therefore, resolving the ineffectiveness and inefficiencies in administration will be one of the issues to be solved. Hence, strengthening versatile multi-mission capability has to be an enduring essential goal of MASSA and it can only start with the effective integration of various functions into a synergetic whole.

While some of MASSA missions are still dispersed into different parts in MOMAF and NMPA, and coordination between them is not viable in Korea, most developed countries' maritime missions with this roles are integrated into a single institution from which they derive an identity and a sense of organizational continuity. Related to this, Thorsen describes his organization's experience; *'We work extremely hard to provide the best possible services at the least possible cost. Our multimission capability allows us to carry out economic, environmental and humanitarian missions, while serving as an integral part of national security. We save lives and property, keep shipping channels open, preserve our living marine resources, and protect our port and waterways. We stop drugs, illegal migration, and environmental pollution'.<sup>9)</sup>*

So MASSA functions have to be readjusted so that limited resources can be used for more than one function in a flexible way for a wide mix of mission.

## 2. Enhancing professionalism

The enhancing professionalism in MASSA is inevitable as the demands of complexity and technology of the missions increases. And that is especially essential for NMPA to meet the future missions transferred from the headquarters of MOMAF. It is known that one of the reasons why the quarter of MOMAF is hesitating to transfer safety administration functions to NMPA is that NMPA is not yet ready to cope with the jobs because of deficiencies in their professionalism.

The inevitability of enhancing professionalism in an organization is well expressed by R.E. Kramek; *'We are a professional organization whose personnel are proud of their traditions as lifesavers, guardians of the sea and military service. We will expand the Coast Guard's role to enhance the maritime transportation system infrastructure and provide a more comprehensive, coordinated safety network focusing on new technologies, human error prevention, navigation improvements, hazardous materials transport, and information systems'.<sup>10)</sup>*

In addition, enhancing professionalism is of great advantage to building a new organizational culture in a bureaucratized government like the present MASSA, as Kearney's states; *'There are four principal advantages of professionalism in government. First, it promotes bureaucratic responsibility and accountability through the professional norms and standards that guide administrators' behaviors and provide democratic decision rules for allocating public goods and services. Second, it serves as an antidote to many of the commonly recognized dysfunctions of bureaucracy....., Third, professionalism aids cooperation and understanding between the scientific and political*

*estates.....Finally, it provides an important source of intrinsic motivation for professional employee.....'*<sup>11)</sup>

### 3. Total Quality Management

Public officials were characterized as being mainly concerned with the maximization of their budgets and status. As a result of such extension, the whole of the public sector was regarded as relatively inefficient. But with such officials the government will face challenges of increasing demands and decreasing resources. Resource limitations are expected to get worse particularly in the public sector.

If government cannot become more productive, it will lead to the necessity of increasing taxes and that will cause national industry to be less competitive in the new global market. How government responds to this challenge will affect the nation's competitiveness in the years ahead. Therefore, enhancing the quality and productivity of the government will be a key issue for the lasting development of a nation for the rest of century.

Similarly, the main challenge confronting maritime administrators is how to enhance organizational effectiveness, because they must cope with the squeeze between rising demand and costs, and stable or declining budgets and work forces, as Jossey-Bass states; "In this era of resource scarcity, one great untapped resource is every worker's knowledge and ingenuity applied to the process of the performing work. Government performance can be improved if human capital is leveraged more effectively through continuous improvement of operating processes and more efficient group processes."<sup>12)</sup>

In view of these considerations, the downsizing and streamlining of MASSA organization has become inexorable. Therefore, some form of

Total Quality Management [hereinafter TQM] has to be adopted so that everybody assumes responsibility for problem-solving to ensure quality and productivity. The entire organization must work as a system of interlocking processes - the institution, rather than employees.<sup>13)</sup>

Adopting TQM in MASSA organization will be a radical change, requiring employees to work smarter, to contribute new ideas, to get involved, and to be willing to accept responsibility, by overcoming bureaucratic malpractice, such as being reluctant to take risks. Some of the statements about TQM made by Morgan and Murgatroyd get at the heart of the matter; *'TQM assumes that quality is the outcome of all activities that take place within an organization; that organization need both quality systems and a quality culture. TQM is a way of managing an organization so that every job, every process, is carried out right, first time and ever time. It affects everyone'*.<sup>14)</sup>

If an organization like MASSA, with large staffs and budgets, adopted TQM, even a small percentage increase in productivity could cope with new tasks without extension of resources.

#### 4. Overcoming of organizational complacency and inertness

Another great problem facing public administrators of MASSA is to overcome complacency and inertness in the bureaucracy. Some aspects of bureaucratic malpractice are described by Gerald E. Gaiden as bureaupathologies; *'Everybody appears to be fully occupied, carrying out their set tasks and observing the directions issued to them. Each is loyal to the organization and keen to do a good job. They are all aware of the shortcomings and deficiencies of the existing administration. Between them, they have a pretty good idea how it can*

*be improved. Yet, some how, nothing changes.'*<sup>15)</sup>

Similarly, MASSA organization is suffering from such malpractice. This is partly because they agree on general principles for commitments, but not specifically on how to implement them, and partly because they are inclined to get comfortable in working the way they have always been allowed to by the organization and no more.

Such inertness within the organization has to be abolished by changing the environment. One of the steps to reforming and improving the organization is to admit bureaupathologies and to take them seriously, and change painstakingly them by installing appropriate tools, training, and communication.

But in changing them, there are always employees who will resist, as Rago states; *'Organizational change of this magnitude creates a psychological state that unwittingly pits the individual employee against the organization itself. Employees get comfortable in working the way they have, precisely to the degree to which the organization makes such demands. Once the organization speaks of change, personal struggles begin.'*<sup>16)</sup>

In short, in any era, personal struggles against organizational change have been unavoidable. Therefore, how to overcome such a problem is one issue MASSA must resolve in the coming years.

## **VI. Conclusion**

Maritime Safety and Security Administration[MASSA] has to be an integrated complex body comprising all of the safety and security-related maritime administration. Because of Korea's



geopolitical and geoeconomic peculiarities, strengthening MASSA capability is one of great issues to be achieved as quickly as possible.

Internal barriers to strengthening MASSA capability include maladministrative practices such as mission redundancy, overlap of budgets, vacuum of administration and lack of expertise. And the countermeasures against these barriers are suggested in terms of reengineering the organization by introducing a multi-mission system, enhancing professionalism, adopting a total quality management system, and abating complacency and inertness in the organization.

Since resource limitations are expected to get worse, public concern about the administration requires that downsizing and streamlining of the organization be given higher priority on the national agenda. Hence, there is no alternative but to enhance effectiveness and efficiency of administration.

Now that the Ministry of Maritime Affairs and Fisheries has become associated with National Maritime Police Administration, an aggressive effort has to be made to build a thoroughly integrated MASSA for the future demands. This will depend on the will and agreement of internal constituencies of the organizations to take the problems seriously and recognize the need for their organizational change.

Implementing changes from the level of top administrators is too slow to solve the current issues because they are usually political appointees with limited time in a given post, and they are likely to focus on immediate questions and short-term results rather than long-range, strategic issues confronting the organization. Now is the time for MASSA to change from the ground

## Notes and References

1]MSSA related missions and agencies before and after establishing MOMAF

missions	agencies	
	before MOMAF*	after MOMAF
shipping	KMPA of MOT	MOMAF
commercial ports	KMPA of MOT	MOMAF
fishery	NFA of MOAF	MOMAF
maritime surveillance	NMPA of MOHA	NMPA of MOMAF
pollution	KMPA of MOT	NMPA of MOMAF
	NMFA of MOAF	
	NMPA of MOHA	
hydrography	HAO of MOT	MOMAF

KMPA: Korea Maritime and Port Administration, MOT: Ministry of Transportation

NMPA: National Maritime Police Administration, MOHA: Ministry of Home Affairs

NFA: National Fisheries Administration, MOAF: Ministry of Agriculture and Fisheries

HAO: Hydrography Affairs Office

\* S-Y Hong, Marine Policy in the Republic of Korea, Marine Policy, 1995, Vol. 19, No.2. p.110.

2]Some of the recent major maritime disasters in Korea include:

- On Sept. 27, 1993, S/S No.5 Kumdong collided with an oil barge, spilling 186 tons of oil into Kwangyang Bay in Chunam.
- On July 23, 1995, S/S Sea Prince grounded, spilling 700 tons of oil into the neighboring sea of Yusoo Port.
- On October 10, 1993, Ferry Boat Sae Hae capsized down, instantly killing 292 innocent passengers at the front bay of Buan, Chunam.

3]MOMAF is mainly comprised of three former maritime agencies, viz., Korea Maritime and Port Administration[KMPA], National Fisheries Administration [NFA] and National Maritime Police Administration[NMPA]. These agencies, in turn, belonged to other governmental organizations: KMPA to Ministries of Transportation, NFA to Agriculture & fisheries, and NPA to Ministry of Home Affairs.

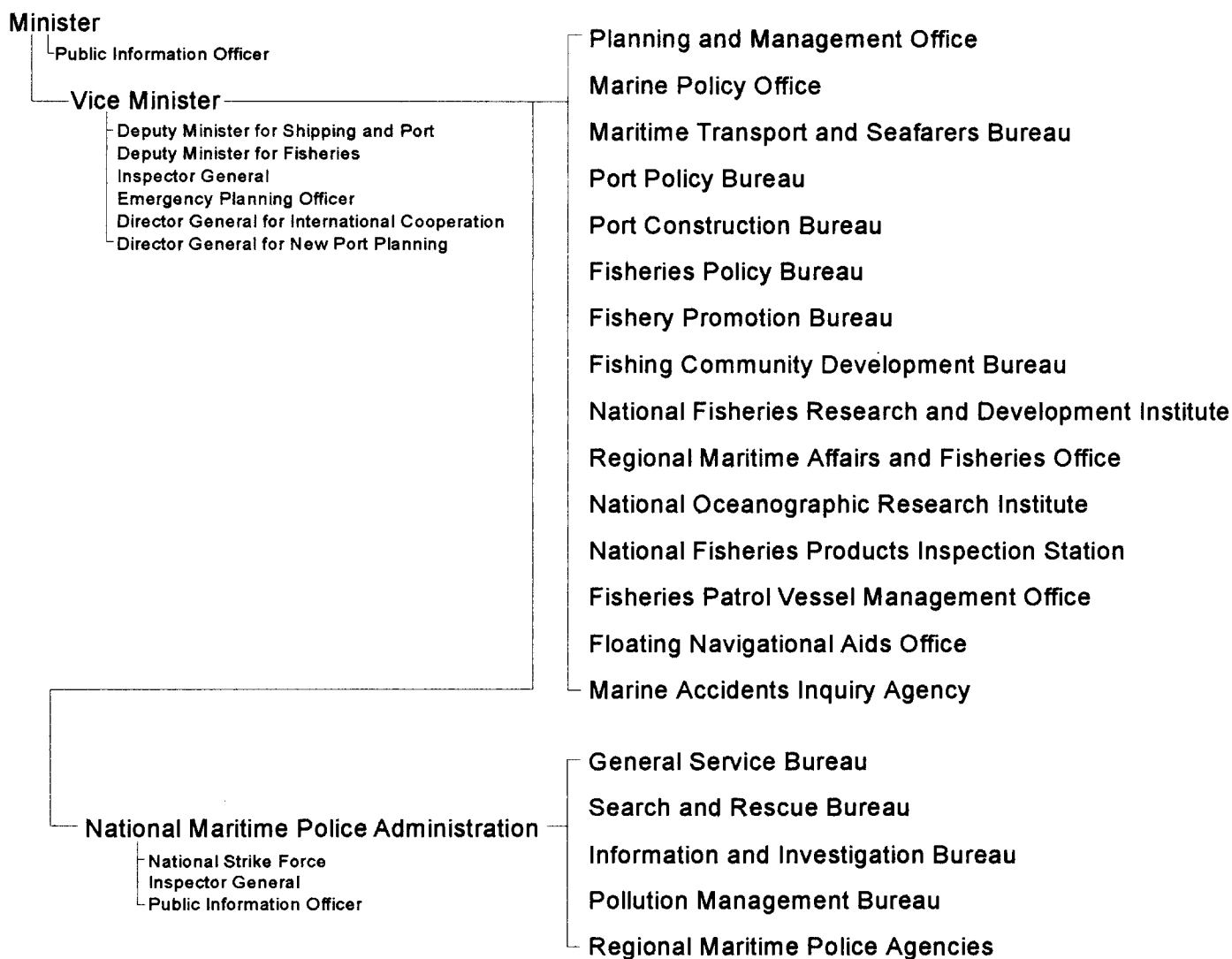
For the organization chart of MOMAF, refer to appendix.

4]In looking over the USCG budget for 1993 (\$3,817.8 - dollars in millions), main items in terms in order of size are operating expenses (\$2,603.0), pension expenses

(\$519.7), acquisition, construction and improvement (\$414.0), and reserve training(\$74.5) - USCG fact file, 1993.

- 5]The USCG's four primary roles, maritime safety, maritime lawenforcement, maritime environmental protection and national defence can be detailed as vessel and boat safety, search and rescue, waterway management, interdicting smugglers and illegal aliens, enforcing EEZ and all other maritime law, combatting maritime terrorism, preventing the discharge of oil, chemicals and other hazardous materials into the marine environment, ensuring the quick, effective detection of discharges which do occur, coordinating spill response and clean-up operations, regulating shore-side and offshore material handling facilities, representing national interests at international forums on the marine environment, participating in operation of espionages etc. - B.B. Stubbs, The US Coast Guard, Marine Policy 1994, 18(6), p.507
- 6]The Italian Coast Guard operates in the following fields: search and rescue at sea, Environmental protection and response to marine pollution, control of harbour traffic, harbour security, ship security, on and offshore maritime policing, regulation and surveillance of fishing activities, control of the merchant fleet, control and policing of pleasure craft, marine certificates, protection of pipelines and offshore oil platforms in the exclusive economic zone, archaeological patrimony, coastal patrol and underwater surveillance, support to anti-immigration patrols at sea, and participation in maritime operations in cases of natural calamity or national emergency - R. Patrino, M. Manicni and A. Malffatti, 'The activities of the Italian Coast Guard in the field of Airborne Remote sensing and the Eventual Use of Satellite Platforms in Marine Pollution Abatement Activities', Spill Science & Technology Bulletin 3(1/2), 1996, P. 25
- 7]Technical inefficiency comprises waste, disconnections, inappropriate managements, lack of innovation. And ineffectiveness means useless activities, quite ineffectually, bad advice, egregious errors.-Gerald E. Gaiden, What really is Public Maladministration?, Public Administration Review, P.487
- 8]The government which functions best is the one with zero redundancy. In this view, government agencies should strive to be "lean and mean". The benefits of reorganization and consolidation to minimize the duplication of functions and overlapping of jurisdictions are widely touted-cost reduction and better service to the public. - R. Miranda, Bureaucracy, Organizational Redundancy, and the Privatization of Public Services, Public Administration Review, March/April 1995 p.193.
- 9] Howard B. Thorsen, The US Coast Guard in Review, Proceedings/May 1997, P.103
- 10] Commandant's Direction, USCG Home Page, Updated July 24, 1996
- 11]Richard C. Kearney, Professionalism and Bureaucratic Responsiveness: Conflict or Compatibility?, Public Administration Review, Jan/Feb., 1988, pp. 575-576
- 12]To begin to close the gap between resources and program needs, you must learn how to achieve more production from your present resource allocation -

- Jossey-Bass, Total Quality Management in Government, 1993, p.11.
- 13] In the late 1980s, the national government created the Federal Quality Institute to promote quality initiatives, and by 1992, over two-third of the Federal agencies were using some form of TQM. - James S. Bowman, At Last, An Alternative to Performance Appraisals: Total Quality Control, Public Administration Review, Mar/Apr., 1994, Vol.54, No.2, p.129
- 14] Total Quality Management in The Public Sector, Open University Press, p.5, 1994
- 15] Gerald E. Gaiden, who listed some 175 common bureaupathologies, observed that "in inert organizations with bureaupathologies, nobody admits responsibility, nobody confesses error, nobody ends wrongdoings. It is as if the organization has a mind of its own, a mind closed to any other way of doing things". - Gerald E. Gaiden, *ibid.* of No. 7], p.491.
- 16] W.V. Rago, Struggle in Transformation: A Study in TQM, Leadership, and Organizational Culture in a Government Agency, Public Administration Review, May/June, 1996, P.234



**Appendix : Organization Chart of MINISTRY OF MARITIME AFFAIRS AND FISHERIES (MOMAF)**