

Operation Plan for Marine Casualty Prevention and Protection (Final Version)



**Ministry of Transportation and
Communications**

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Operation Plan for Marine Casualty Prevention and Protection

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Operation Plan for Marine Casualty Prevention and Protection

Part I General Principles

In accordance with Disaster Prevention and Protection Act, Article 3, the Ministry of Transportation and Communications is designated to be the central competent authority for marine casualties, whose responsibilities include command, supervision, and coordination of various administrative institutions and public utilities of different levels in marine casualty prevention and protection. In accordance with Disaster Prevention and Protection Act, Article 19, Paragraph 2, the Ministry of Transportation and Communications has formulated the Operation Plan for Marine Casualty Prevention and Protection (hereafter, referred to as the Plan) based on the Basic Plan of Disaster Prevention and Protection. On January 16, 2002, the Plan was approved by the Central Disaster Prevention and Response Council. On February 8, 2002, the Ministry of Transportation and Communications issued the Plan on MPBMOTC Doc. No. 0910001267. The Plan has undergone four amendments. On July 28, 2021, the Central Disaster Prevention and Response Council approved the current amendment. On September 7, 2021, the Ministry of Transportation and Communications issued the amended Plan on MPBMOTC Doc. No. 1109800162.

Chapter 1 Overview of the Plan

Section 1 Objective of the Plan

The Plan is formulated to take precautions for disaster mitigation and reduce the damage of marine casualties.

Section 2 Framework and Contents of the Plan

The Plan includes six parts, namely General Principles, Marine Casualty Prevention, Preparation Before Disaster, Marine Casualty

Emergency Response, Marine Casualty Investigation and Restoration, and Implementation, Supervision and Evaluation of the Plan, to prescribe the scope of measures of the Ministry of Transportation and Communications, central government agencies, and municipal and county (city) governments.

Section 3 Relationship with Other Plans

As the basis for formulating the disaster prevention and protection measures undertaken by local governments and public utilities, the relationship between the Plan and various disaster prevention and protection plans prescribed by the Disaster Prevention and Protection Act is as follows:

I. Relationship with the Basic Plan of Disaster Prevention and Protection:

The Basic Plan of Disaster Prevention and Protection is a comprehensive, long-term and instructive outline plan formulated by the Central Disaster Prevention and Protection Commission. The basic plan serves as the master plan for operation plan and regional plan for disaster prevention and protection. Pursuant to the basic plan, the Plan prescribes the basic disaster prevention and protection guidelines or regulations for different stages.

II. Relationship with operation plans for disaster prevention and protection:

- (I) The Plan is formulated by the central competent agencies (affiliated institutions) of disaster prevention and protection. The public utilities prescribe the pertinent measures for various disaster prevention and protection under their purview. It is oriented toward single-operation requirements and serves as the short and medium-term plan for disaster prevention and protection that must be undertaken by the competent agencies (affiliated institutions) from all levels in the government responsible for the same purview. Every two

years, the Plan shall be reviewed and amended accordingly, while serving as the basis of the regional plan for disaster prevention and protection.

(II) The Ministry of Transportation and Communications serves as the competent authority of the central government for marine casualty prevention and protection. The Plan complements other operation plans for disaster prevention and protections of parallel ranking that the Ministry of the Interior formulates, Council of Agriculture and Environmental Protection Administration.

(III) For the scope of search and rescue for marine casualties in Taiwan, the execution and principles of assistance are as stipulated in Appendix 1.

III. Relationship with the regional plan for disaster prevention and protection:

(I) The regional plan for disaster prevention and protection is formulated by Disaster Prevention and Protection Councils under individual municipal and county (city) governments. Pertaining to the respective territorial scope, the councils take into account the regional information and nature of the disaster. Based on operation plans for disaster prevention and protection, they formulate the plan for various disaster alleviation measures and matters to be undertaken by the relevant regional agencies.

(II) The Plan serves as the higher level guidance plan for the regional plan for disaster prevention and protection of local governments. The matters to be undertaken by the relevant agencies as stipulated by the Plan shall be taken into account by the local governments when they establish the regional plan for marine casualty prevention and protection in terms of measures to be executed by the corresponding agencies

(affiliated institutions), so as to improve the overall prevention and protection mechanism for marine casualties.

(III) See Appendix 2 for the principles of guidance for the regional plan for marine casualty prevention and protection.

IV. Relationship with Operation Plan for Offshore Wind Farm Disaster Prevention and Protection:

(I) In accordance with Disaster Prevention and Protection Act, Article 19, the Ministry of Economic Affairs oversees the offshore wind farm operators over potential disasters arising from offshore wind-power generation. The ministry takes into account the information on offshore wind farms and nature of the disaster, and based on the Basic Plan of Disaster Prevention and Protection and Operation Plan for Power Transmission Line Failure Disaster Prevention and Protection, formulate the Operation Plan for Offshore Wind Farm Disaster Prevention and Protection (including various disaster alleviation measures and matters to be undertaken by the relevant regional agencies).

(II) The Plan serves as the higher level guidance plan for offshore wind farm disaster prevention and protection. The matters to be undertaken by the relevant operators and agencies (affiliated institutions) as stipulated by the Plan shall be taken into account by the ministry when they establish the plan for marine casualty prevention and protection in terms of measures to be executed by the corresponding offshore wind farm operators and agencies (affiliated institutions), so as to improve the overall prevention and protection mechanism for marine casualties.

Chapter 2 Characteristics, Potential Ramifications of Disasters

and Identification of Factors Causing Marine Casualties

Section 1 Definition and Classification of Marine Casualty

The terminologies used by the International Maritime Organization (IMO) under the United Nations (UN) in international treaties, resolutions of assemblies, regulations and guidelines are “marine casualty”, “marine incident”, or “maritime casualty”.

Both Article 221 of the United Nations Convention on the Law of the Sea (1982) on “measures to avoid pollution arising from maritime casualties” and Article 2 of 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION 1969) define maritime casualty as a collision of vessels, stranding or other incidents of navigation, or other occurrences on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

I. The standard format for marine casualty reports included Circular 433 of the Maritime Safety Committee (MSC) in 1986 classifies marine casualties into the following eight categories:

- (I) Foundering: Foundering includes the foundering of vessels caused by severe weather, leaks, or cracks but does not include foundering caused by the incidents described below.
- (II) Missing: When a vessel is missing for a certain time with no news received and the outcome cannot be determined, the vessel shall be declared missing.
- (III) Fire and explosion: A fire or explosion that occurs on board a vessel, and other incidents derived from the fire or explosion.
- (IV) Collision: A collision is where a vessel is hit by another vessel, regardless of whether it is on a voyage, anchored, or berthed.
- (V) Contact: A contact is an incident caused by a vessel striking or struck by an external object including oil rigs or platforms but does not include collision against another vessel or the seabed.
- (VI) Grounding: Grounding refers to cases where a vessel strikes the

seabed, sand bank, shoal, or shore, and includes collision against underwater wrecks.

(VII) Heavy weather and ice damage: Major damage and ice damage caused by waves or hurricanes.

(VIII) Hull and machinery: Equipment or machinery is damaged, whilst the engine loses power.

II. On November 27, 1997, IMO passed the Code for the Investigation of Marine Casualties and Incidents. Chapter 4 of the code defines a marine casualty as an event that has resulted in any of the following:

(I) "Marine casualty" means an event that has resulted in any of the following:

1. The death of, or serious injury to, a person that is caused by, or in connection with, the operations of a ship; or
2. The loss of a person from a ship that is caused by, or in connection with, the operations of a ship; or
3. The loss, presumed loss or abandonment of a ship; or
4. material damage to a ship; or
5. The stranding or disabling of a ship, or the involvement of a ship in a collision; or
6. material damage being caused by, or in connection with, the operation of a ship; or
7. damage to the environment brought about by the damage of a ship or ships being caused by, or in connection with, the operations of a ship or ships.

(II) "Very serious casualty" means a casualty to a ship which involves the total loss of the ship, loss of life or severe pollution.

(III) "Serious casualty" means a casualty that does not qualify as a very serious casualty but involves:

1. a fire, explosion, grounding, contact, heavy weather damage, ice damage, hull cracking or suspected hull defect, etc.;

2. structural damage rendering the ship unseaworthy, such as penetration of the hull underwater, immobilization of main engines, extensive accommodation damage etc.; or
3. pollution (regardless of quantity); and/or
4. a breakdown necessitating towage or shore assistance.

(IV) "Marine incident" means an occurrence or event is caused by, or in connection with, the operations of a ship by which the ship or any person is imperiled, or as a result of which serious damage to the ship or structure or the environment might be caused.

Since then, regardless of the Cir. 827 of MSC in 1997, Cir. 953 in 2000, MSC-MEPC.3/Circ.1 in 2005, MSC-MEPC.3/Circ.2 and Circ.3 in 2008, or MSC-MEPC.3/Circ.4/Rev.1 in 2014, IMO classifies marine casualties into four categories, which are "very serious casualties", "serious casualties", "less serious casualties" and "marine incidents".

Based on the definitions provided by IMO above, and considering the circumstances in Taiwan, "marine casualty" specified in the Plan refers to vessel malfunction, foundering, grounding, collision, fire, explosion, or other extraordinary events involving ships, cargo, seafarers, or passengers. The "marine oil pollution" specified in the Plan refers to marine casualties that cause oil spills from oil vessels or threat of pollution of the sea by oil spills, leading to potential endangerment of health and severe pollution of the environment.

Section 2 Magnitude of Marine Casualties

The magnitudes of marine casualties specified in the Plan include Class A, Class B, and Class C, which are classified as follows:

I. Class A magnitude of marine casualties:

- (I) The occurrence or imminent occurrence of a serious marine casualty involving vessel(s) on the seas of Taiwan with severe vessel damage and casualties or missing person(s) totaling ten (inclusive) persons or more.

- (II) A leak or imminent leak of residual fuel oil of more than 700 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.
- (III) A disaster that shows signs of expansion in magnitude and has a foreseeable material impact on society.
- (IV) A disaster with media, political, or social impact, or a disaster that the (Deputy) Minister of Economic Affairs deems necessary to disclose (e.g., death or missing person(s) caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted according to the development of the disaster.

II. Class B magnitude of marine casualties:

- (I) The occurrence or imminent occurrence of a marine casualty involving vessel(s) on the seas of Taiwan with casualties or missing person(s) totaling four (inclusive) persons or more, and less than ten persons.
- (II) A leak or imminent leak of residual fuel oil between 100 metric tonnes and 700 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.
- (III) A major accident involving a vessel or an accident with media impact (e.g., death or missing person(s) caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted according to the development of the disaster.

III. Class C magnitude of marine casualties:

- (I) The occurrence or imminent occurrence of a marine casualty on the seas of Taiwan with no immediate casualties or danger to personnel.
- (II) A leak or imminent leak of residual fuel oil below 100 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.

(III) The occurrence of a marine casualty involving vessel(s) where death or missing person(s) totaling less than three (inclusive) persons. Meanwhile, countermeasures shall be adjusted according to the development of the disaster.

Section 3 Characteristics of Factors Causing Marine Casualties

Human, vessel and environment are three major variables affecting ship safety (Diagram 1). By applying SHELL Model that is adopted by the research on aviation safety ubiquitously, the relationship between the software and hardware can be deduced more widely for the ship safety domain, deriving four subsystems, namely the relationship between liveware and software (L-S System), relationship between liveware and hardware (L-H System), relationship between liveware and environment (L-E System) and relationship between liveware and liveware (L-L System) (as per Diagram 2). In the event of problems arising among these relationships, or the actors are unable to collaborate, perils may occur.

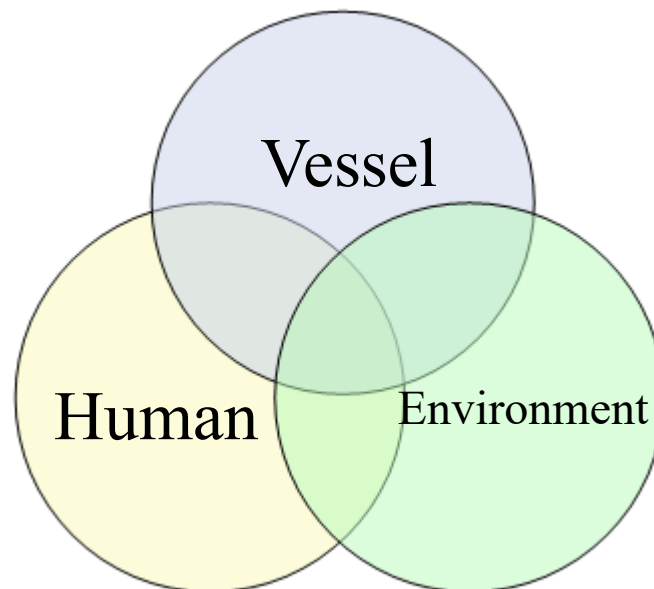


Diagram 1 Relationship between human, vessel and environment

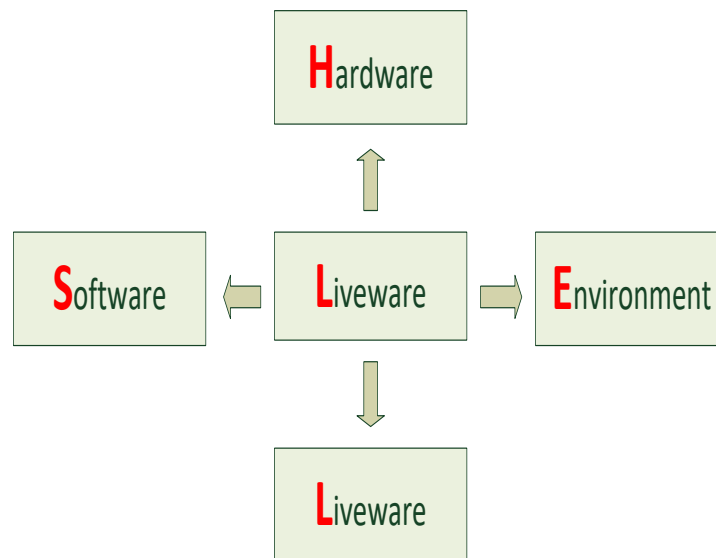


Diagram 2 SHELL Model

For the human-vessel-environment conception, the Code for the Investigation of Marine Casualties and Incidents issued by IMO derives a more illustrative human-centric conception diagram (Diagram 3), including relationships between human and ship, human and working and living conditions, human and organization on-board, human and shore-side management, human and external influences and environment, and human and human, and other relationships between sub-systems. Each relationship is prescribed as follows:

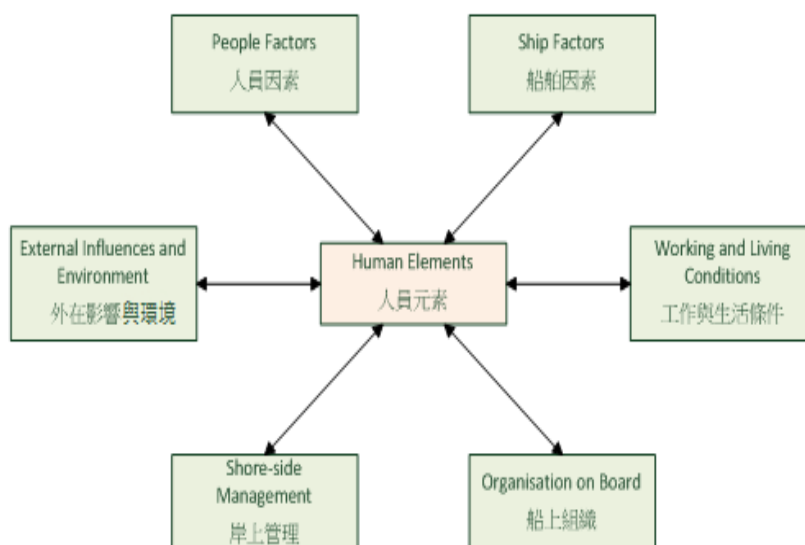


Diagram 3 Direct and indirect factors related to human element

I. People factors:

- (I) ability, skills, knowledge (outcome of training and experience);
- (II) personality (mental condition, emotional state);
- (III) physical condition (medical fitness, substance and alcohol abuses, fatigue);
- (IV) activities prior to accident/occurrence;
- (V) assigned duties at the time of accident/occurrence;
- (VI) actual behavior at the time of accident/occurrence;
- (VII) attitude.

II. Ship factors:

- (I) design;
- (II) state of maintenance;
- (III) equipment (availability, reliability);
- (IV) cargo characteristics, including securing, handling and care;
- (V) certificates.

III. Working and living conditions:

- (I) level of automation;
- (II) ergonomic design of working, living and recreation areas and equipment;
- (III) adequacy of living conditions;
- (IV) opportunities for recreation;
- (V) adequacy of food;
- (VI) level of ship motion, vibrations, heat and noise.

IV. Organization on-board:

- (I) division of tasks and responsibilities;
- (II) composition of the crew (nationality/competence);
- (III) manning level;
- (IV) workload/complexity of tasks;
- (V) working hours/rest hours;
- (VI) procedures and standing orders;

- (VII) liaison (internal and external);
- (VIII) on-board management and supervision;
- (IX) organization of on-board training and drills;
- (X) teamwork, including resource management;
- (XI) planning (voyages, cargo, maintenance).

V. Shore-side management:

- (I) policy on recruitment;
- (II) safety policy and philosophy (culture, attitude and trust);
- (III) management commitment to safety;
- (IV) scheduling of leave periods;
- (V) general management policy;
- (VI) port scheduling;
- (VII) contractual and/or industrial arrangements and agreements;
- (VIII) assignment of duties;
- (IX) ship-shore communication.
- (X) differences in language use.

VI. External influences and environment:

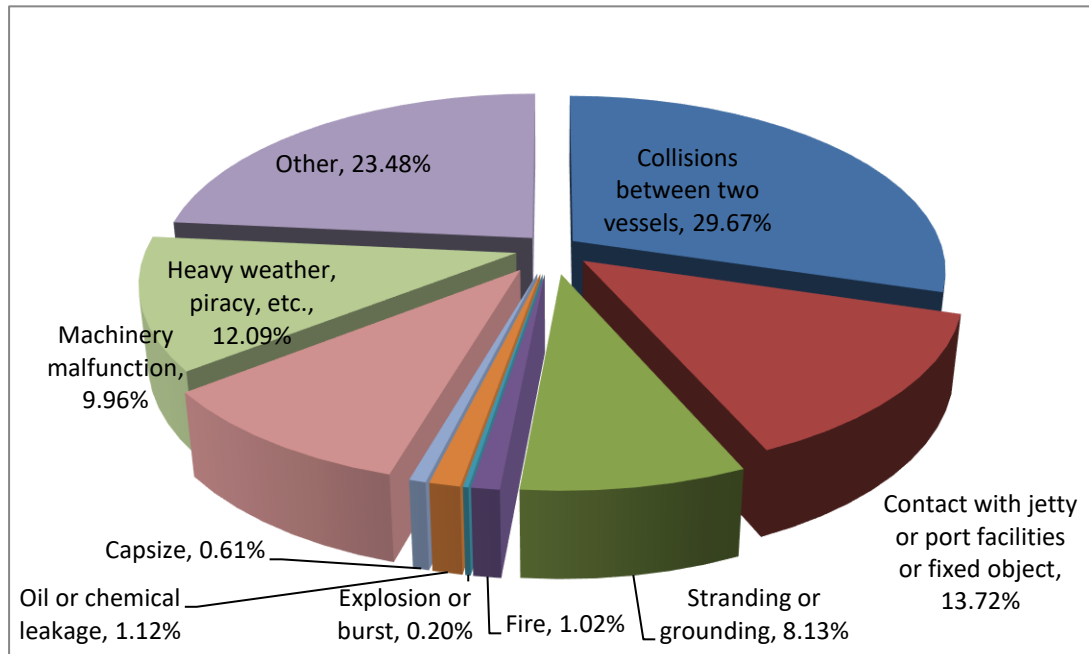
- (I) weather and sea conditions;
- (II) port and transit conditions (vessel traffic service (VTS), pilots, etc);
- (III) traffic density;
- (IV) ice conditions;
- (V) organizations representing shipowners and seafarers;
- (VI) regulations, surveys and inspections (international, national, port, classification societies, etc.).

Section 4 Characteristics and Identification of Factors Causing Marine Casualties on the Seas of Taiwan

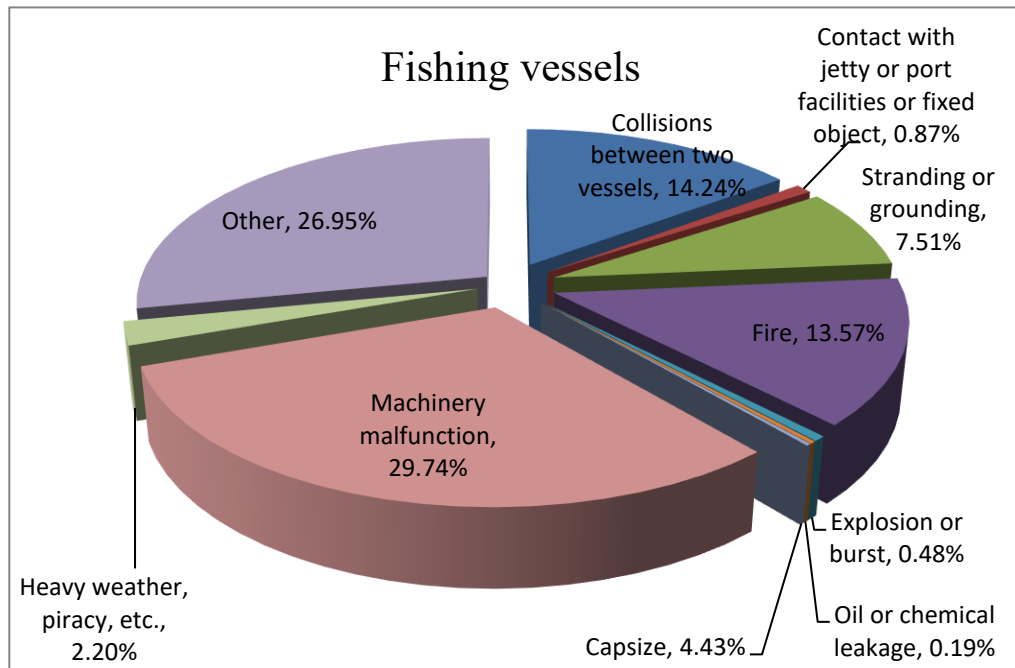
According to the statistics of Maritime and Port Bureau, Ministry of Transportation and Communications (hereafter, Maritime and Port Bureau) on endorsement for sea protest between 2000 to 2019, the largest cause of marine casualties was others, constituting 25.63%; collisions between two vessels as the second largest cause, constituting 21.5%; machinery malfunction as the third largest cause, constituting 19.72%; stranding or grounding constituting 8.22%; fire constituting 7.46%; contact with jetty or port facilities or fixed object constituting 7.14%; heavy weather, piracy, etc. constituting 6.81%; capsized constituting 2.49%; oil or chemical leakage constituting 0.70%; and explosion or burst constituting 0.33%.

If further distinguishing by merchant and fishing vessels, for merchant vessels, collisions between two vessels was the largest cause of marine casualties, constituting 29.67%; others constituting 23.48%; contact with jetty or port facilities or fixed object constituting 13.72%; heavy weather, piracy, etc. constituting 12.09%; machinery malfunction constituting 9.96%; stranding or grounding constituting 8.13%; oil or chemical leakage constituting 1.12%; fire constituting 1.02%; capsized constituting 0.61%; and explosion or burst constituting 0.20%.

Merchant vessels



For fishing vessels, machinery malfunction was the largest cause of marine casualties, constituting 29.74%; others as the second largest cause, constituting 26.95%; collisions between two vessels as the third largest cause, constituting 14.24%; fire constituting 13.57%; stranding or grounding constituting 7.51%; capsizes constituting 4.43%; contact with jetty or port facilities or fixed object constituting 0.87%; heavy weather, piracy, etc. constituting 2.20%; explosion or burst constituting 0.48%; and oil or chemical leakage constituting 0.19%.



Judging from the statistics above, the main cause of marine casualties were collisions between two vessels for merchant vessels, and machinery malfunction for fishing vessels. Although the main causes of marine casualties for merchant and fishing vessels were slightly different, they mostly resulted from people factors. If the preparation before sailing can be better implemented and more caution can be practiced in the course of the voyage, the probability of marine casualties occurring can be significantly reduced.

Section 5 Metocean Characteristics of the Seas of Taiwan

Taiwan is located at the tectonic boundary between the Eurasian Plate and the Pacific Ocean. It has a prominent monsoon climate. During winter seasons, it experiences continental cold high-pressure, where wind from high pressure atmospheric circulation blows clockwise, giving rise to a prominent northeast monsoon in the Taiwan area and the neighboring seas. During the summer seasons, the climate of Taiwan is affected by

the Pacific High. Unlike the winter season, the wind direction is not stable. However, the southwester and southeaster are the two main wind directions. Furthermore, one other characteristic is that the Pacific High has a smaller gradient and lower wind speeds than those of the winter seasons. Nevertheless, during summer seasons, typhoons often pass by the neighboring seas of Taiwan, causing sea surface wind speed and wave to surge. Therefore, extra attention must be paid to the development of typhoons.

I. Prevailing Winds and Waves on Seas Near Taiwan

The observation data from the Central Weather Bureau including data collected by the Pengchiayu Weather Station and Longdong Buoy Station, Peng-hu Weather Station and Dongjidaowave Station, and Lanyu Weather Station and Chenggong Wave Station, are used to describe the wind direction, wind speed, and wave height conditions on seas north and east of Taiwan, the Taiwan Strait, and seas southeast of Taiwan.

(I) Seas north and east of Taiwan

The continental high pressure reaches its peak in January, with prevailing northeast monsoon and the highest wind speeds. The northeast monsoon remains steady till March. Spring transitions to summer during April and May with alternating northeaster and southeaster. The southeaster takes over as the primary wind direction from June to August. The transition of seasons occurs again starting in September, as the northeaster gradually replaces the southeaster. The northeast monsoon picks up strength from October to December, during which the northeaster prevails. From January to March, during which the northeast monsoon prevails, significant wave heights of more than 1 meter account for approximately 70% of the time, while significant wave heights of more than 2 meters account for about 20%. From May to August, during the southeast

monsoon period, the significant wave heights of more than 1 meter account for less than 15% of the time. As the northeast monsoon gains strength in October, the significant wave heights of more than 2 meters account for approximately 38% of the time from October to December.

(II) Taiwan Strait

Due to the terrain, the wind direction of the Taiwan Strait is more stable. The northeaster persists from January to April and the southwester only gradually appears in May but at a lower frequency. The main wind directions from June to August consist of southwesters and southern. The northeast monsoon travels south quickly in September and northeasters quickly take over as the main wind direction. The northeast monsoon remains steady from October to December and gradually gains strength with the progression of the season. From October to March, during which strong northeast monsoon prevails, significant wave heights of more than 1 meter account for more than 70% of the time, while significant wave heights of more than 2 meters may account for as much as 40%. From May to August, during which strong southwest monsoon prevails, the waves are lower and significant wave heights of more than 1 meter account for less than 15% of the time.

(III) Seas east of Taiwan

The wind direction from January to March is mostly the same as that of seas north of Taiwan with a stable northeaster. With the seasonal change from April to May, the southwester emerges and remains the main wind direction from June to August. The transition of seasons occurs in September with mostly northeast monsoon followed by southeaster. Northeaster takes over again from October to December. Significant wave heights of more than 1 meter account for

more than 76% of the time from January to March. In the southwest monsoon from June to August, significant wave heights of more than 1 meter account for approximately 30% of the time. As the northeast monsoon strengthens from October to December, significant wave heights of more than 2 meters account for as much as 19% of the time.

II. Typhoons

Taiwan is situated on the main typhoon routes in the northwest Pacific Ocean and is often hit by typhoons. According to the Central Weather Bureau statistics, on average, seven to eight typhoons pass through nearby seas and the centers of three to four typhoons make landfall or cause damage without making landfall each year. Typhoons hit most frequently in August, followed by July and September, and even fewer typhoons in June and October. Occasional typhoons may hit in May. Typhoons rarely hit in other months. Disasters caused by typhoons mainly occur within areas hundreds of kilometers from the center. Strong winds and heavy rain often occur within the area and they cause billows and high tides that lead to disasters.

III. Ocean currents and tidal currents

(I) Ocean currents

The Pacific North Equatorial Current at the east coast of Taiwan flows westwards and is separated into two currents before it arrives in the Philippines. The larger current flows north along Taiwan's east coast and the main body of its branch current subsequently flows northeast between the sunken continental reefs in Mainland China's East Sea and the Ryukyu Islands. This current is known as the Kuroshio or Japan Current. Its width often varies and the flow speed is highest toward the center at approximately 3 knots. The speed decreases toward the edge of the current. The main axis of the Kuroshio

flows north along the southern tip on the east coast of Taiwan at approximately 12 to 20 nautical miles from the shore. In other words, it maintains a distance of approximately 20 to 25 nautical miles from central eastern Taiwan along the coast. The current flows slightly northeast after passing between the Port of Su'ao and Yonaguni and the flow speed picks up from 1 knot to more than 3 knots.

In areas close to the shore between the southern tip of eastern Taiwan and the Port of Su'ao, affected by the wind, the tidal current experiences volatile change and turns extremely weak with irregular currents. The tidal current direction near the Port of Taitung remains unstable and the current speed remains low. In the Port of Hualien and Port of Su'ao, the tidal current flows north with a rising tide and flows south with a falling tide. The maximum speed never exceeds 1.5 knots.

As tidal currents are generally stronger than ocean currents on Taiwan's west coast, vessels must pay more attention to tidal currents when navigating along the west coast. Ocean currents that pass through Taiwan Strait generally flow north from the South China Sea. Taiwan Banks divides the ocean currents into two branch currents. One branch current flows along the coast of Mainland China north northeast while the other stronger branch current flows along southern Taiwan east north east, and then passes through the Penghu Islands before flowing north along the west coast of Taiwan at a speed of over 1.5 knots. The stronger branch currents that flow along the west coast of Taiwan flow, start to flow south near the Port of Anping. Seafarers must remember that branch currents they may encounter are a mixture of tidal currents and ocean currents and they must consider all factors based on the actual conditions.

(II) Tidal currents

The tidal currents on the south and north of Taiwan Strait flow in opposite directions at any given time. The time interval for northward current reaching maximum speed at the south and north of the Strait is approximately 6 hours apart.

From December to March of the following year, the average ocean currents flowing on the west of the Strait, flow south southwest at a speed of 0.25 to 0.5 knots. The tidal current flows more or less northward between the Penghu Islands at a speed of approximately 1 to 1.5 knots.

The average ocean currents in the Strait in April and May generally follow the terrain of the channel and flow north northeast. The flow speed along the coast of Mainland China is less than 0.5 knots and reaches 1.25 knots off the northwest coast of Taiwan. However, certain changes emerge when the northeast monsoon weakens in April.

The average ocean currents usually flow northeast in June, July, and August. The speed ranges between 0.5 knots and 1.25 knots on the west of the Strait.

Changes may occur on the west of the Strait in September, October, and November due to changes of the monsoon, which changes the direction of current to south southwest at a flow speed of possibly up to 0.75 knots. The average ocean currents in the east of the strait continue to flow north and north northwest in September and October.

Ocean currents change more rapidly in narrow waterways of the Penghu Islands and vessels should pay special attention to navigation.

IV. Advection fog

The formulation of advection fog is due to the horizontal flow of air. When warm and moist air flows over the colder surface of seas or land, the air on the lower layer condenses due to the cold

water and thus produces a fog. With suitable wind direction and wind speed, the fog may persist for a long time and only dissipate when the wind stops or changes direction. Such fog appears most frequently in Taiwan and nearby seas from the end of winter to spring and often poses severe threats to land transportation, aircraft takeoff and landing, and ocean navigation safety.

Chapter 3 Amendment Procedures of the Plan

The Plan is formulated by the Ministry of Transportation and Communications and amended based on discussions with relevant agencies (affiliated institutions), before forwarding to the Central Disaster Prevention and Response Council for review and implementation.

Chapter 4 Implementation Unit of the Plan

In accordance with Disaster Prevention and Protection Act, Article 3, the Ministry of Transportation and Communications is designated to be the central competent authority, and responsible for the command, supervision, and coordination of relevant agencies (affiliated institutions) and public utilities for marine casualty prevention and protection operations. The Maritime and Port Bureau is responsible for the execution, supervision, and management of marine casualty rescue operations as well as maritime administration in Taiwan (refer to Appendix 5 for the marine casualty liaison and report information).

Chapter 5 Review and Amendment Schedule of the Plan

In accordance with The Enforcement Rules of Disaster Prevention and Protection Act, Article 8, for every two years, the Ministry of Transportation and Communications shall review and amend the Plan in terms of marine casualty prevention and protection, response and rescue, post-disaster recovery and reconstruction, and investigation based on the

Basic Plan of Disaster Prevention and Protection. Whenever necessary, the ministry may also revise the Plan at any time.

Chapter 6 Applicable Vessel Types and Scope

I. Applicable vessel types

Vessels are classified based on the shipowners or users, into private vessels, official vessels, and military vessels. Of which, the competent authorities overseeing private vessels are either the Ministry of Transportation and Communications, or Council of Agriculture, depending on the purpose of use; the competent authorities overseeing official vessels are the respective government agencies owning or using the vessels; the competent authority overseeing military vessels is the Ministry of National Defense. The marine casualty disaster prevention and protection operations pertaining to private vessels are undertaken by the Ministry of Transportation and Communications and the Council of Agriculture; due to the unique nature of the missions and attributes of the official Coast Guard vessels and military vessels, the marine casualty disaster prevention and protection operations pertaining to such vessels shall be undertaken by the respective government agencies.

2. Applicable scope

Vessels that encounter marine casualties on the sea, in coastal waters, and estuaries.

Chapter 7 Important Measures Undertaken

I. Recent important measures for marine casualty prevention and protection:

Measure	Action taken	Implementation schedule	Organized (co-organized) by
I. Sampling inspection on vessel safety on important waters	The Ministry of Transportation and Communications has established Safety Inspection Unit on Domestic Passenger Transporting Vessel, which is formed by the Ocean Affairs Council, Coast Guard Administration, National Communications Commission, Tourism Bureau (including all national scenic area administrations), Maritime and Port Bureau and various maritime affair centers, municipal and county (city) governments and Transportation and Communications Management Unit. The Safety Inspection Unit on Domestic Passenger Transporting Vessel shall prioritize and select routes and waters at Kinmen Islands, Matsu Islands, Penghu Islands, Tamshui-Bali, Donggang-Lambai Island, Fugang-Green Island and Orchid Island to inspect from time to time on passenger transporting vessels, crew, harbor and affairs concerning operation, safety and management, as well as supervising maritime affair agencies, municipal and county (city) governments in implementing navigation safety operation for passenger transporting vessels.	Once every month	Organized by: Transportation and Communications Management Unit, Ministry of Transportation and Communications Co-organized by: Ocean Affairs Council, Coast Guard Administration of Ocean Affairs Council (hereafter, Coast Guard Administration), National Communications Commission, Tourism Bureau (including all national scenic area administrations), Maritime and Port Bureau and various maritime affair centers, municipal and county (city) governments.
II. Crew professional training	Crew members of different ranking shall receive professional training as per the 2010 Amendments of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW Convention).	(I) The Maritime and Port Bureau provides 35 training items, with 395 professional	Ministry of Transportation and Communications, Maritime and Port Bureau, various maritime affair centers, Council of

Measure	Action taken	Implementation schedule	Organized (co-organized) by
	(Training for crew members of fishing vessels is as per the 1995 International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F).)	training sessions for seafarers (adjusted flexibly according to seafarers' needs) every year. (II) The Coast Guard Administration provides one seafarer professional training session every year. (III) The Fisheries Agency provides 69 sessions of basic safety training for regular fishermen and 37 sessions for the fishing crew.	Agriculture, Ocean Affairs Council and Coast Guard Administration.
III. Provide drills on marine salvage and training	According to actual circumstances and needs, provide drills on marine salvage and regular training for personnel.	Once a year	Ocean Affairs Council, Coast Guard Administration

Measure	Action taken	Implementation schedule	Organized (co-organized) by
IV. All seaports (port branch offices) shall organize one to two drills on marine casualty prevention and protection on the waters under their purview.	Hold marine salvage drills on a regular basis that correspond to the emergency response capacity for marine salvage involving passenger ships in accordance with the Disaster Management White Paper. (Taiwan International Ports Corporation, Ltd. shall organize one port facility drill every year)	Once a year	Ministry of Transportation and Communications, Maritime and Port Bureau, various maritime affair centers, Fisheries Agency under Council of Agriculture, Executive Yuan (hereafter, Fisheries Agency), various port management institutions (agencies) and local country and city governments.
V. After the Central Emergency Operation Center for marine casualty is dissolved, complete and the conclude the report.	The competent authority of disaster prevention and protection shall consolidate the relevant information from the municipal and county (city) governments, and complete the report of the Central Emergency Operation Center for marine casualty before submitting it to the Executive Yuan within three months after the operation center is dissolved.	Perform after the Central Emergency Operation Center for marine casualty is dissolved.	Organized by: Ministry of Transportation and Communications Co-organized by: Ocean Affairs Council, Coast Guard Administration, Ocean Conservation Administration, Council of Agriculture, Ministry of Health and Welfare, National Rescue Command Center, Mainland Affairs Council, Ministry of Education, Ministry of Economic Affairs, Ministry

Measure	Action taken	Implementation schedule	Organized (co-organized) by
			of National Defense, Ministry of Justice, municipal and county (city) governments.
Note: The budget for measures undertaken is as per the budget allocation made by the relevant execution units.			

II. Important measures pursuant to recent maritime regulations:

Measure	Action taken	Implementation schedule	Organized (co-organized) by
I. Amendments to the Aids to Navigation Act	In response to the offshore wind energy policy of the government, regulations on safety zone and waterway planning are updated for navigation lines of travel and navigational bearing. They are also formulated to compel the establishment of a safety zone and aids to navigation for offshore wind farms to ensure the safety of both offshore wind farm facilities and navigation safety.	Issued for enforcement on November 21, 2018	Organized by: Ministry of Transportation and Communications Co-organized by: Ocean Affairs Council, Coast Guard Administration, Council of Agriculture, Ministry of Economic Affairs, Ministry of National Defense, Ministry of Justice, municipal and county (city) governments.
II. Amendments to The Law of Ships	Strengthen the management of ship safety. Pursuant to international treaties and domestic laws, update and amend relevant regulations to align with international standards.	Issued for enforcement on November 28, 2018	Organized by: Ministry of Transportation and Communications Co-organized by: Ocean Affairs Council, Coast Guard Administration, Council of

			Agriculture, Ministry of Justice, municipal and county (city) governments.
III. Operation Plan for Marine Casualty Prevention and Protection	Amended Operation Plan for Marine Casualty Prevention and Protection	2021	Organized by: Ministry of Transportation and Communications Co-organized by: Ocean Affairs Council, Coast Guard Administration, Ocean Conservation Administration of Ocean Affairs Council (hereafter, Ocean Conservation Administration), Council of Agriculture, Ministry of Health and Welfare, National Rescue Command Center, Mainland Affairs Council, Ministry of Education, Ministry of Economic Affairs, Ministry of National Defense, Ministry of Justice, municipal and county (city) governments.

Chapter 8 Policy Advancement Pertaining to Marine Casualties

Section 1 Policy Advancement Pertaining to Marine Casualty Prevention and Protection in Recent Years

I. Environment

(I) The Feasibility Plan for Establishing Navigation Safety Alert Areas in the Seas of Taiwan was formulated. According to the

recommendation of the feasibility plan, the sea areas within 12 nautical miles of Taiwan's Northeast Coast, Penghu, and Cape Eluanbi are deemed to be high-risk sea areas in the future and subject to critical safety surveillance. The Naval Meteorologic and Oceanographic Office is requested to issue notices to mariners and continue to strengthen the early warning functions of the Global Maritime Distress and Safety System (GMDSS). The public services necessary for disaster prevention and safety shall be provided to vessels to ensure navigation safety in sea areas near the Taiwan Strait.

- (II) The electronic navigation functions of the lighthouse and lamp poles shall be enhanced. The Maritime and Port Bureau has set up 33 Automatic Identification System (AIS) base stations and navigation buoy stations on lighthouses and light poles under its purview. Using the AIS system, the real-time information of vessels can be monitored for the surveillance of vessels along the sea areas of Taiwan. Early warnings can be issued for vessels that may enter critical areas or encounter collision and grounding to reduce the risk of incidents.
- (III) Pursuant to the resolution of Cospas-Sarsat on adopting middle earth orbit satellite system, the Maritime and Port Bureau has formulated Medium-altitude Earth Orbit Search and Rescue System (MEOSAR) Establishment Plan. In November 2019, the Medium Earth Orbit Local User Terminal (MEOLUT) established in the satellite ground receive station passed the review of Cospas-Sarsat. Meanwhile, the mission control center (MCC) has to be subject to online testing in relation to the nodal point of northwest Pacific upper ocean in Japan. However, due to the COVID-19 pandemic, this system launch which was supposed to be completed in August 2020, is postponed to June 2023.

- (IV) On November 21, 2018, the amendments to the Aids to Navigation Act were issued, authorizing the central government agency to refer to the technical specifications stipulated by the international regulations when establishing the aids to navigation, so as to enhance the legal basis for the management of aids to navigation in Taiwan. In response to the offshore wind energy policy of the government, regulations on safety zone and waterway planning are updated for navigation lines of travel and navigational bearing. They are also formulated to demand the establishment of a safety zone for offshore wind farms and aids to navigation to ensure the safety of offshore wind farm facilities and navigation safety.
- (V) Establishment and Development Plan for Smart Navigation Safety Services is launched to establish the smart navigation safety information platform and maritime centers. By consolidating external resources and the manpower of the maritime centers on full-time surveillance, it aims to strengthen the marine supervision and early warning capabilities.
- (VI) The vessel traffic services (VTS) for Changhua offshore wind farm water routes are under planning for establishment. The radar and AIS data can effectively surveil the waterways and sailing status of vessels at the Changhua offshore wind farm to strengthen the waterway safety mechanism for vessels entering and exiting Changhua offshore wind farm.
- (VII) Installing AIS on fishing vessels is promoted. In 2019 and 2020, the subsidy for installing AIS were given to 576 and 196 fishing vessels respectively. In 2021, more subsidies were given to 4,000 fishing vessels. Apart from strengthening the collision avoidance capability, fishing vessels are able to provide their real-time position when in distress, thus increasing the effectiveness of marine salvage.

II. Vessels

- (I) Flag State Control (FSC) is implemented. The Law of Ships is being reviewed to increase the inspection frequency and intensity for vessels more than 20 years old. Meanwhile, apart from passenger ships, for cargo ships, Risk Levels and Spot-check Standard for Cargo Ships is established by the Maritime and Port Bureau. In 2020, the targeted numbers of spot-checks amounted to 1,852 passenger ships and 317 cargo ships.
- (II) The Port State Control (PSC) is implemented and undertaken by the Maritime and Port Bureau. To maintain a 15% inspection rate, the number of vessels inspected has increased every year to 816 vessels in 2020, especially special screening on high-risk vessels (e.g. foreign single-hull oil tankers), including flag state, International Safety Management (ISM) companies, recognized organization (RO) or ship classification societies, as well as the number of detentions and violations, etc. In 2015, the Maritime Transport Network (MTNet) selection system was established and shall produce a deterrence effect on substandard vessels.
- (III) On April 1, 2018, the Passenger List Management System was established to monitor the status of passenger transportation, and prevent overloading or other violations. Meanwhile, to strengthen navigation safety, The Law of Ships, Article 34-1 is reviewed and amended to provide additional regulations on prohibiting dangerous goods from being carried or checked into a passenger ship, as well as the penalty of the violation.
- (IV) On November 28, 2018, the amendments to part of the articles of The Law of Ships were issued to update regulations on safe operation of vessels and pollution prevention management system and increase the inspection intensity on aging vessels. The ship's ownership registration where inspection has been overdue for five years shall also be canceled after inspection. Additional

sub-laws (Regulations Governing Ship Inspection and Regulations Governing Fireproof Construction of Ships) are established to strengthen the safety management of vessels and regulations on the designing, construction, certificate issuance, and inspection of vessels, so as to align with international standards.

- (V) Supervision of navigation safety is strengthened before Lunar New Year and summer vacations to strengthen navigation safety and safeguard lives. Before Lunar New Year and summer vacations, the Maritime and Port Bureau shall perform spot-checks on all regular domestic voyages.
- (VI) Joint exercises for marine casualties are organized. The Ministry of Transportation and Communications supervised the Marine Salvage Exercise for International Passenger Ship at Port of Taipei in 2018; Exercise for Marine Salvage, Port Safety and Anti-Terrorism Chemical Hazards at Port of Taipei, and Emergency Response for Marine Oil Pollution at Sea Area of New Taipei City in 2019 and Three-Dimensional Marine Salvage Exercise at Port of Kaohsiung in 2020.
- (VII) Marine pilots strengthen PSC operations and inspections via LINE. Currently, various maritime affair centers under Maritime and Port Bureau (hereafter, maritime affair centers) have established LINE group chats with pilot offices and are able to send personnel promptly for PSC inspections and attend to other matters.
- (VIII) On March 26, 2018, Operation Rules for Subsidizing the Installation of Obstacle-Free Equipment in Public Transportation Vessels and Means of Access were issued to construct a comprehensive, friendly, obstacle-free marine environment. The safety instructions on the passenger ship are also established to prescribe prioritized boarding and alighting for children and

handicapped people, so as to enhance passenger safety.

III. Personnel

- (I) In 2017, National Taiwan Ocean University was commissioned to undertake the Drafting of Professional Seafarer Training Materials for Emergency Response, Occupational Safety, Security, Medical Service, and Survival in accordance with training materials of IMO, which shall be helpful in enhancing the professional competence of seafarers.
- (II) Various professional training shall be provided to ensure the professional competence of seafarers meeting the requirements of STCW Convention. From 2017 to 2019, the number of personnel receiving training amounted to 12,566, 12,354 and 15,310 persons respectively. In 2020, the number of personnel receiving training amounted to 14,696 persons.
- (III) Seafarer tests of the Ministry of Transportation and Communications for first and second-class officers/engineers shall be organized regularly. Each year, the tests are organized four times a year. In 2018, 2,163 persons sat for the tests and 576 persons passed. In 2019, 1,897 persons sat for the tests and 447 persons passed. In 2020, 1,702 persons sat for the tests and 424 persons passed (due to the pandemic, the seafarer tests were organized three times only).
- (IV) The promotion training and fitness evaluations for existing seafarers are organized regularly and for three times a year. In 2018, 1,064 persons took part in the training and 247 persons passed the fitness evaluations. In 2019, 1,225 persons took part in the training and 250 persons passed the fitness evaluations. In 2020, 1,245 persons took part in the training and 171 persons passed the fitness evaluations (due to the pandemic, promotion training and fitness evaluations were organized twice only). To strengthen the refresher training for seafarers, in 2017, 194

persons attended the Seminar on Navigation Safety for Deck Officers; in 2018, two sessions of Competency Seminar on Emergency Response and Safety Awareness for Seafarers of Passenger Vessel were held and 120 persons attended; in 2019, two sessions of Workshop for Seafarer Competence and 101 persons attended; in 2020, two sessions of Workshop for Seafarer Competence and 342 persons attended.

- (V) The Standards for Minimum Safety Manning for Seafarers on a Ship was reviewed and promulgated on January 1, 2018. According to their hardware and facility condition, sailing schedule and area, etc., shipping companies shall provide information for the ranking, qualifications, crew size, actual voyage, work arrangements and other specific details of seafarers to apply for Minimum Safe Manning Certificate from the Maritime and Port Bureau.
- (VI) In accordance with the Maritime Labor Convention (MLC), in Article 8, the minimum rest hours of seafarers amount to at least 10 hours within any 24-hour period. Furthermore, within any 7 days period, there shall be at least 77 rest hours. The daily rest hours shall be divided into 2 periods, in which 1 period must at least amount to 6 hours. The interval between consecutive periods may not exceed 14 hours.
- (VII) In accordance with The Law of Ships, Article 30-1, passenger ship with 100 gross tonnage (GT) or carrying more than 150 passengers and cargo ship of more than 500 GT shall adopt the National Safety Management (NSM) system from November 28, 2019 onward and obtain a certificate issued by the Maritime and Port Bureau. To promote the safe operation of vessels and pollution prevention management regulations, on October 31, 2019, the regulations promulgated by the Maritime and Port Bureau include the scope of evaluation of safety management

system, application and issuance of certificate, evaluation and fees of certification and other compliance matters. To date, there are a total of 73 safety management agencies, and 115 passenger and cargo ships have adopted the system, which translates to a completion rate of 100%.

Section 2 Policy Advancement Pertaining to Marine Casualty Response in Recent Years

- I. Pertaining to surface rescue capacity, Open Contract for Vessel Towage and Rescue has been signed. When a vessel encounters machinery failure leading to drifting, the towage can be initiated to avoid stranding. In the future, the open contract method may be extended to incorporate private underwater rescue capacity into the overall rescue mechanism.
- II. Various commercial harbors, the national army stationed locally, fire departments, environmental protection agencies, towage operators, etc. have entered into a total of 28 support provision agreements. The Maritime and Port Bureau shall coordinate with 26 passenger ship operators providing services among Matsu Islands, Keelung and Matsu Islands, Mini Three Links for Kinmen and Xiamen, Jiangjun District of Tainan and Dongji Island of Penghu Islands, and Taitung and offshore islands (Orchid Island and Lüdao) to enter into mutual aid MOU. Such effort may include local governments and private rescue resources to respond to disasters within the golden window for rescue.
- III. Standard operating procedures for incident command shall be formulated and regulations governing forward coordination post shall be updated to strengthen the rescue grouping, coordination and communication between central and local agencies. This is useful in enhancing the efficiency of the overall rescue operation and consolidating rescue resources. Meanwhile, the nearest

resources can be rapidly assigned to the rescue site by cataloguing the underwater rescue resources.

Chapter 9 Budgeting Status of Marine Casualty Prevention and Protection Operations in Recent Years

Budget for Marine Casualty Prevention and Protection Operations of the Ministry of Transportation and Communications and Maritime and Port Bureau in Recent Years

(Unit: in NTD thousand)

Domain	Subject matter	2018	2019	2020
Marine administration and management	Marine casualty search and rescue exercises	1,300	4,700	2,900
	GMDSS operations	68,924	79,000	79,000
	Renewal plan for MEOSAR	640	0	0
	Annual membership fee to Cospas-Sarsat	1,050	1,700	1,700
Maritime Communication Information System project	Taiwan-Canada Maritime Technological Cooperation MOU work plan	6,300	10,000	10,000
Total		80,724	78,214	93,600

Part II Marine Casualty Prevention

Marine casualties can be reviewed from three major aspects, namely the human, vessel and environmental factors. In the past, the causes of marine casualties that occurred on the seas of Taiwan were mainly due to bad weather, equipment failure or fire, collision of vessels, and grounding or stranding, leading to loss of lives and property damage. To reduce the occurrence of marine casualties, preventive mechanisms pertaining to the relevant aspects and causes of incidents shall be established to meet the goal of disaster alleviation.

The Ministry of Transportation and Communications, Ocean Affairs Council,

Coast Guard Administration, Council of Agriculture and local governments shall partner with the relevant agencies (affiliated institutions) pertinent to their responsibilities and authority to prevent the recurrence of incidents. The collaboration shall promote researches on marine casualty prevention and protection, review improvements in disaster alleviation measures, so as to establish countermeasures to prevent the recurrence of incidents.

Chapter 1 Natural Environment Factor in Marine Casualty Prevention

The natural environment factor mainly includes two major elements, namely weather and sea conditions (e.g. occurrence of incidents due to storms, typhoons, ice or icing conditions, low visibility or other meteorological causes, or high sea, currents, tidal currents or other oceanological causes). Concrete preventive measures are as follows:

- I. Strengthen the real-time, short and medium-term monitoring and analysis for weather and sea condition forecast (Central Weather Bureau).
- II. Establish a warning notification system for poor sea conditions and bad weather (Central Weather Bureau, coast stations, fisheries radio broadcasting stations, port management agencies (affiliated institutions)).
- III. When receiving warning notification for poor sea condition and bad weather, if the port management agencies (affiliated institutions) are concerned with the safety of harbor facilities and operation, they shall inform the relevant units and operators of the harbors immediately to take the necessary precautions (port management agencies (affiliated institutions)).

Chapter 2 Transportation Environment Factor in Marine

Casualty Prevention

The transportation environment factor includes inadequate, faulty or damaged aeronautical radio navigation equipment and other external transportation factors (e.g. inaccuracy of radio navigation equipment or marine chart, outdated navigation publications or other problems with the aeronautical radio navigation equipment that lead to the occurrence of incidents; or harbor or water channel traffic congestion, complications in safe operation and management of vessels, other maneuvering complications, negligence in towage, infractions of pilots, damage of shore equipment, facilities or aeronautical radio navigation equipment, or other external causes that lead to the occurrence of incidents). Concrete preventive measures are as follows:

- I. Navigation aids (including ramarks, racons and radar reflectors) for navigation water surrounding Taiwan shall be installed (Ministry of Transportation and Communications).
- II. When the water traffic at navigation water reaches a certain density, a separate channel system shall be established to divert vessels entering and exiting harbors so as to avoid collisions or tight situations like traffic congestion (Ministry of Transportation and Communications and port management agencies (affiliated institutions)).
- III. The marine chart shall be drawn and hydrological information shall be collected (Ministry of the Interior, Naval Meteorologic and Oceanographic Office).
- IV. The bathymetric survey for waterways and harbor shall be conducted regularly. If sedimentation is found, dredging must be immediately performed until the designed water depth is achieved, so as to avoid grounding or stranding, thus enhancing navigation safety (port management agencies (affiliated institutions)).
- V. Navigation aids shall be installed and maintained regularly to facilitate the identification of position and comprehension of

underwater danger zone (Ministry of Transportation and Communications and port management agencies (affiliated institutions)).

- VI. For harbor facilities, fenders, floats and other docking accommodations, personnel shall be designated to perform checks from time to time. If damage is found, repair shall be performed immediately to ensure the docking safety of vessels (port management agencies (affiliated institutions)).
- VII. AIS shall be installed in vessels to automatically identify the ship's name and garner the relevant dynamic and static data and electronic messaging (Ministry of Transportation and Communications, Ocean Affairs Council, Coast Guard Administration and port management agencies (affiliated institutions)).
- VIII. Vessel traffic service (VTS) shall be established to monitor vessels on the surface promptly and oversee the positions and movements of vessels within the harbors and nearby areas. Monitoring and receiving calling signals via multi-channel wireless control stations shall be undertaken to issue warning to vessels violating regulations or facing colliding risk, so as to prevent collision (Ministry of Transportation and Communications and port management agencies (affiliated institutions)).
- IX. When information threatening navigation safety is received, apart from sending a formal request to the Naval Meteorologic and Oceanographic Office to issue a notice to mariners, the Council of Agriculture is also notified to issue a warning to sailing fishing vessels via its fisheries radio broadcasting stations. Shipping lines and agents under the purview are also reminded to pay special attention to navigation safety. Furthermore, coast stations shall notify vessels in specific waters. (Naval Meteorologic and

Oceanographic Office, Keelung Radio, fisheries radio broadcasting stations, Ministry of Transportation and Communications, port management agencies (affiliated institutions), Council of Agriculture).

Chapter 3 Vessel Safety Factor in Marine Casualty Prevention

Vessel management factor mainly takes into consideration the machinery, equipment and cargo on-board, including whether the design of the vessel is appropriate, the hull structure is reliable, the maintenance of machinery and equipment is performed properly, the cargo securing and treatment is done properly, etc. Potential common causes of marine casualties: Due to malfunction in main propulsion engine, major accessory machinery, rudder machine, watertight door or waterproof gate and ballast pumps, involuntary combustion of main propulsion engine and other incidents caused by turbine factors; or due to malfunction or inadequacy in navigation facilities, malfunction in electrical equipment, malfunction or inadequacy in sensors, fire protection and extinguishing equipment, telecommunication equipment and life saving appliances, involuntary combustion of equipment and other incidents caused by vessel equipment factors; or due to cargo not properly secured, cargo fire and explosion, improper loading of cargo, involuntary combustion of cargo (spontaneous combustion), expansion of cargo and other incidents caused by cargo factors. Concrete preventive measures are as follows:

- I. Implement FSC, and strengthen special inspection, regular inspection and spot-checks on vessels of R.O.C. nationality. (Ministry of Transportation and Communications)
- II. Implement PSC and strengthen the Vessel Safety Check (VTC) of foreign nationality. (Ministry of Transportation and Communications)
- III. Strengthen safety checks on vessels entering and exiting harbors, including the validity of certificates of vessels and seafarers, the

minimum rest hours of seafarers, smuggling, human smuggling and presence of prohibited articles or other violations; implement safety checks on seafarers, passengers, and cargo load securing; and strengthen the execution of securing of dangerous goods. (Ministry of Transportation and Communications, Ocean Affairs Council, Coast Guard Administration, port management agencies (affiliated institutions), self-managing checks by vessel personnel).

- IV. Strengthen the design, construction, certificate issuance and regulation review in accordance with the relevant international treaties and articles of IMO. (Ministry of Transportation and Communications and Ministry of Economic Affairs).

Chapter 4 Human Safety Factor in Marine Casualty Prevention

The human element is the core factor in marine casualty prevention and protection. However, human errors can be further traced to individual attributes and attitude (mentality and emotions), as well as physical condition (passing medical checkup, substance abuse, fatigue) and other factors. The aptitude, skills, knowledge (training and experience), activities are undertaken prior to accident/incident and task distribution at the time of accident/incident, actual performance and other external factors can also give rise to human errors.

Section 1 Main Internal Factors

- I. Physical factors: Errors due to physical reasons, e.g. injury, illness, sleep, fatigue, hearing problems, vision problems, physical workload and unhealthiness can cause accidents to take place.
- II. Psychological factors: Errors due to psychological reasons, e.g. personality traits, panic and fear, psychotic disorder, negligence due to weariness, negligence due to fatigue, errors in classification, inadequate understanding of the environment, erroneous habits,

improper undertaking of operations due to inadequate basic skill and knowledge levels can cause accidents to take place.

- III. Psychological and medical factors: Errors due to psychological and medical reasons, e.g. stress, overwork, low morale among seafarers, alcohol and drug abuses, poisoning, etc. can cause accidents to take place.

Section 2 Main External Factors

- I. Workplace and environment: Errors due to workplace and environmental reasons, e.g. unergonomic issues, environment detrimental to health, vibration, light pollution, whirling, etc. can cause accidents to take place.
- II. Crew violation: Errors due to crew's violations, e.g. violation of routine protocols, violation due to agitation, unavoidable violation, and abnormal violation can cause accidents to take place.
- III. Crew unsafe action: Errors due to crew's unsafe actions, e.g. improper use of rules for waterways, improper look-out, lack of fitness for duty, incorrect operations of equipment, unknown signals and warnings, deviation from rules and procedures, incorrect status assessment, incorrect planning and intention, and impact of prior behavioral inadequacy assessments can cause accidents to take place. Behavior-based safety should be implemented to correct unsafe employee conduct and enhance safe behavior.
- IV. Latent conditions to contribute to accidents: For example, the inadequacy of hardware and facilities, negligence in design, flawed maintenance protocols, flawed operating protocols, erroneous executions, flawed internal management, inconsistent goals, negligence in organization, negligence in communication, inadequate training or improper experience, and inadequate defense measures, etc.

Section 3 Concrete Preventive Measures

- I. Elevate the training level of seafarers (Ministry of Transportation and Communications, Council of Agriculture and Ministry of Education).
- II. Actively organize various professional training for seafarers (Ministry of Transportation and Communications, and Council of Agriculture, Executive Yuan).
- III. Enhance the certification test and eligibility evaluation standards for seafarers (Ministry of Transportation and Communications, and Council of Agriculture, Executive Yuan).
- IV. Review the minimum rest hours of all types of seafarers (including fishing vessel crews) (Ministry of Transportation and Communications, and Council of Agriculture).
- V. Promote quality certification system for vessel safety management (Ministry of Transportation and Communications).
- VI. Implement review on the working and resting hours for seafarers in accordance with provisions of international treaties (Ministry of Transportation and Communications, port management agencies (affiliated institutions) and municipal, county and city governments).
- VII. Strengthen on-board and onshore education and training for seafarers (shipping lines).

Chapter 5 Vessel Management Factor in Marine Casualty Prevention

For vessel safety, apart from improving vessel management, it is necessary for shipping companies, all members on-board and management to establish a safety culture pertaining to the working and living conditions on-board, organization on-board and shore-side management, so as to reduce the occurrence of marine casualties, for example, organization of on-board tasks and responsibilities, crew

composition and manning level, workload and duties in work schedules, work procedures on-board and routine command and management supervision, internal and external liaison and communication, training and exercises, teamwork and resource management, (voyage, cargo and maintenance) planning, vessel schedules and port arrangements, employment and promotion policies, arrangements for seafarer employment contract, shipping lines' safety policies, principles, and safety management commitments, influence of organizations representing shipowners and seafarers, implementation of domestic and international laws and regulations, inspections, and inspection systems. Concrete preventive measures are as follows:

Implement international treaties, conventions, agreements, regulations and standards of IMO, International Labor Organization (ILO), etc., and raise awareness pertaining to the law and regulations implemented (Ministry of Transportation and Communications and Maritime and Port Bureau, Council of Agriculture, Executive Yuan and Fisheries Agency).

Part III Preparation Before Disaster

Chapter 1 Establishment of Response System

- I. To improve the marine casualty emergency response mechanism, the Ministry of Transportation and Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Economic Affairs, Ministry of Justice, Council of Agriculture, Environmental Protection Administration, Ministry of Health and Welfare, Mainland Affairs Council, Ocean Affairs Council, Ocean Conservation Administration, Coast Guard Administration, Office of Disaster Management, Department of Information Services, local governments and port management agencies (affiliated institutions) shall enhance the vertical and horizontal liaison between different agencies. Departments and institutions shall formulate the relevant planning and operating protocols pertaining to their duties and areas of disaster prevention and protection under their purview. They shall also organize or co-organize education programs, seminars, training courses, exercises for personnel, so that the relevant personnel are familiar with the operating protocols, the correct usage of machinery and equipment, and the contact information of disaster response personnel.
- II. Local governments shall set up emergency response teams, establish an emergency hotline mechanism with different administrative agencies and units overseeing disaster prevention and protection, and port management agencies (affiliated institutions). They shall use diagrams to illustrate the liaisons, the horizontal and vertical reporting mechanism. They shall also establish a 24-hour emergency reporting and handling system, and prepare the emergency contact list.

- III. Shipping lines, offshore wind farm operators and fishermen shall establish emergency response grouping to formulate emergency response planning and operating protocols, and hold regular exercises.
- IV. Government agencies of different levels shall liaise with all-out national defense mobilization readiness system. They shall actively express the emergency response requirements and supports to be incorporated into the mobilization readiness planning of mobilization committees of different levels and prepare for disaster prevention and protection, emergency response, and congregation matters.
- V. The Ministry of Transportation and Communications, Council of Agriculture, Environmental Protection Administration, Ministry of the Interior, Ministry of Economic Affairs, Ocean Affairs Council, Coast Guard Administration, National Rescue Command Center, local governments, disaster prevention and protection bodies (voluntary groups) shall establish a mutual aid and liaison mechanism to allow for the request of mutual support according to the magnitude of marine casualties.
- VI. The Ministry of Transportation and Communications, Council of Agriculture, port management agencies (affiliated institutions), Ocean Affairs Council, Coast Guard Administration, local governments and offshore wind farm operators constitute the marine casualty rescue capacity. They may enter into rescue, salvage and funeral service agreements with businesses under their purview to respond to the large magnitude marine incidents.

Chapter 2 Disaster Data Collection, Notification and Preparation for Analysis and Application

- I. Establishment of disaster data collection and notification system
 - (I) The Ministry of Transportation and Communications, Ministry of

the Interior, Ministry of National Defense, Ministry of Economic Affairs, Council of Agriculture, Ministry of Health and Welfare, Ocean Affairs Council, Ocean Conservation Administration, Coast Guard Administration, local governments, port management agencies (affiliated institutions) and units under their purview, shipping lines, and fishery and offshore wind farm operators shall establish marine casualty data collection system, as well as the reporting and liaison mechanism.

(II) The Ministry of Transportation and Communications, Ministry of the Interior, Ministry of National Defense, Ministry of Economic Affairs, Council of Agriculture, Ocean Affairs Council, Ocean Conservation Administration, Coast Guard Administration, local governments and units under their purview, shipping lines and fishery operators shall, according to their needs, establish a diversified disaster data collection mechanism using satellite system, aircrafts, vehicles, vessels, etc.; they shall also implement satellite image transmission system, aircraft radar images, drone and surface-monitoring equipment, etc. and contact system.

(III) Government agencies of different levels shall establish multi-channel disaster data collection from private enterprises, media outlets and residents to monitor the complete disaster situation.

II. Securing of telecommunication equipment

(I) The Ministry of Transportation and Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Economic Affairs, Ministry of Justice, Council of Agriculture, Ministry of Health and Welfare, Mainland Affairs Council, Ocean Affairs Council, Ocean Conservation Administration, Coast Guard Administration,

Office of Disaster Management, Department of Information Services, National Communications Commission, local governments, port management agencies (affiliated institutions) and units under their purview, shipping lines, and fishery and offshore wind farm operators shall, according to their needs, establish communication and liaison mechanism, and emergency contact protocol pertaining to the execution of rescue missions with different disaster prevention and protection agencies and units, e.g. mobile phones, official mobile messaging communication and amateur radio communication, etc. Meanwhile, they shall also establish and expand wireless communication networks and liaison mechanisms of information networks between agencies to enable information sharing during an emergency.

(II) The Ministry of Transportation and Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Economic Affairs, Ministry of Justice, Council of Agriculture, Ministry of Health and Welfare, Mainland Affairs Council, Ocean Affairs Council, Ocean Conservation Administration, Coast Guard Administration, Office of Disaster Management, Department of Information Services, local governments, port management agencies (affiliated institutions) and units under their purview shall regularly perform checks, testing and operational training on the telecommunication equipment, and simulations on communication outage or response measures for large volume use.

(III) Where necessary, the Ministry of Transportation and Communications shall oversee local governments and port management agencies (affiliated institutions) in planning for information collection method that is readily usable in

disaster situations, as well as swiftly and correctly sending wireless image transmission system to the disaster response center.

- (IV) When a disaster occurs, the Ministry of Transportation and Communications shall make a request to the National Communications Commission to assist in soliciting priority use of emergency support telecommunication equipment from telecommunications operators.

III. Preparation for disaster response

- (I) The Ministry of Transportation and Communications, Ministry of the Interior, Ministry of National Defense, Ministry of Economic Affairs, Council of Agriculture, Ministry of Health and Welfare, Ocean Affairs Council, Coast Guard Administration, local governments, port management agencies (affiliated institutions) and units under their purview shall regularly prepare for the equipment, devices and resources catering to emergency response beforehand.
- (II) The port management agencies (affiliated institutions) and local governments shall adequately prepare for fire fighting, ambulance and rescue vehicles, machineries, vessels, equipment and devices, as well as establishing the mutual support provision agreements and contact mechanism.
- (III) The Ministry of National Defense shall collaborate with marine salvage response agencies (affiliated institutions) in executing the preparation work for marine casualty response.
- (IV) The Ocean Affairs Council and Coast Guard Administration shall prepare the rescue ships and arrange for personnel to take charge of the incident command, search, salvage, emergency rescue and other relevant preparation measures.
- (V) Healthcare competent authorities of different levels shall prepare for emergency medical care system to cater to disasters and

organize exercises regularly.

- (VI) Healthcare competent authorities of different levels shall strengthen the large volume patient admission capacity of the emergency care responsibility hospitals under their purview and prepare appropriate medication and medical supplies according to the disaster vulnerability analysis.
- (VII) The Ministry of Transportation and Communications, Council of Agriculture and Ocean Affairs Council, Coast Guard Administration and units under their purview shall review the difference between the search and rescue regulations of IMO, and the marine salvage mechanism and regulations of Taiwan. Recommendations pertaining to the responsibilities and authority of relevant agencies shall be proposed, so as to align with international regulations. The Ministry of Transportation and Communications, Ministry of Economic Affairs, Ministry of the Interior, Ministry of National Defense, Council of Agriculture, Ocean Affairs Council, Coast Guard Administration, National Rescue Command Center and units under its purview shall take the recommendations into consideration and collaborate to review the regulations pertaining to the responsibilities and authority of relevant agencies and other disaster preparation matters.

IV. Preparation of temporary shelters

- (I) The port management agencies (affiliated institutions) and local governments shall make planning to prepare for temporary shelters and facilities at the disaster area, as well as the allocation and provision of necessary supplies to the shelters.
- (II) The Ministry of Health and Welfare shall oversee the preparation of disaster victims shelter planning undertaken by local governments, strengthen the route planning within harbor

areas and facilities, route planning of evacuation, and the storage, management and allocation preparation for necessities and other supplies.

(III) The Ministry of Education shall coordinate the collaboration between schools of all levels and local governments to plan and prepare temporary shelters.

(IV) For establishing temporary shelters, venues with obstacle-free areas, entrances, exits and toilets shall be considered first. The space shall also take into personal consideration safety and furnish gender-friendly facilities. Furthermore, communication aids or easy-read versions and other assistive equipment for persons with disabilities shall also be considered further.

V. Preparation for emergency transit of personnel and supplies

(I) The Ministry of the Interior, Ministry of National Defense, Ministry of Transportation and Communications, Ministry of Economic Affairs, Council of Agriculture, Ocean Affairs Council, Coast Guard Administration, local governments and units under their purview shall collaborate with the relevant agencies to establish emergency transit network and enter into agreements with courier service providers to facilitate emergency transit.

(II) The Ministry of the Interior shall oversee the local governments in preparing emergency traffic dispersion and traffic control planning.

(III) The local governments shall prepare the traffic signals, information signs and other traffic facilities, as well as do planning for traffic control measures during disaster salvage.

(IV) The obstacle-free traffic evacuation plan for the disabled shall be taken into consideration.

VI. Preparation for disaster prevention and protection drills and exercises.

- (I) Government agencies of different levels, coast guard agencies and port management agencies (affiliated institutions) shall organize the disaster prevention and protection drills and exercises, as well as establishing exercise guidelines for disaster prevention and protection in respect of persons with disabilities. They shall also invite persons with disabilities to participate in the exercises. Where necessary, a balanced gender ratio among the participants with disabilities shall also be taken in consideration.
- (II) Shipping lines, and fishery and offshore wind farm operators shall organize marine casualty response exercises and request supervision from the Ministry of Transportation and Communications, Ministry of Economic Affairs and Council of Agriculture.
- (III) The Department of Information Services shall assist the Ministry of Education, Ministry of Transportation and Communications, Ministry of Economic Affairs, Council of Agriculture and units under their purview in using public broadcasting channels to screen awareness video clips pertaining to marine casualty prevention and protection, so as to strengthen the education of disaster salvage, and popularize disaster prevention and protection awareness. It shall also encompass the media outlets, e.g. The internet and school library screening the video clips including television campaign video clips and micro films. The method and channels that persons with disabilities receive the information pertaining to disaster prevention and protection, and ongoing disasters shall also be considered.
- (IV) The exercises and training of marine salvage held shall include

both “partial-forewarning mobilization drills” and “unscripted exercises”. The relevant units shall organize such exercises on a regular basis. At the same time, the central and local governments shall co-organize these exercises. After these exercises, review on whether the preparation and response stages meet the content of the Plan shall be performed.

VII. Preparation of provision of disaster information

- (I) Shipping lines, and fishery and offshore wind farm operators shall devise a plan on how to notify and provide counseling and relevant reliefs to victim families.
- (II) Government agencies of different levels, port management agencies (affiliated institutions), offshore wind farm operators and shipping lines shall establish and prepare for the information dissemination and telecommunication mechanism to swiftly inform the victims regarding the process of disaster salvage and the relevant disaster information.
- (III) To enable persons with disabilities to receive the necessary disaster prevention and protection information, the information shall be enhanced to be easily read and readily usable. The content and format prepared shall meet the requirement of high comprehensibility, and the information shall be made public on certified accessible websites.

VIII. Preparation for the prevention of secondary disasters

- (I) The port management agencies (affiliated institutions), offshore wind farm operators and local governments shall devise the relevant reporting mechanism in respect of other disasters that arise due to marine casualties beforehand, so that when marine casualties occur, the relevant agencies can be promptly notified to take the appropriate precautions.

- (II) The Ministry of Transportation and Communications, Ministry of Economic Affairs, Council of Agriculture, Ocean Affairs Council and Coast Guard Administration shall, when necessary, plan for imposing restriction of navigation, prohibition of navigation and other measures. They shall coordinate the announcement of the relevant signals, notices and cartographic documents so as to undertake prompt measures and prevent derivatives disasters.

Chapter 3 Prevention Measure Undertaken by Different Agencies

I. Ministry of Transportation and Communications

- (I) Serve as the supervisor and commander agency of the central government in marine casualty prevention and protection.
- (II) Oversee and coordinate marine salvages.
- (III) Formulate national marine casualty prevention and protection policies, planning and preventive measures.
- (IV) Establish emergency reporting, response mechanism and protocols.
- (V) Strengthen the disaster preventive response, training and exercise of the relevant personnel.
- (VI) Educate the public in establishing awareness for marine casualty prevention and protection.
- (VII) Strengthen monitoring and analysis. Use real-time, short and medium-term weather forecast technology to establish an early warning and notification system for marine casualty and weather forecast.
- (VIII) Strengthen international collaboration in information and technology sharing for marine casualty prevention and protection.
- (IX) Strengthen harbor and navigation safety management. Perform

checks on the qualifications and, minimum resting hours of crew members and safety equipment of vessels entering and exiting the harbor.

- (X) Oversee the operation plan for marine casualty prevention and protection of harbors under its purview (commercial and yacht harbors), the marine salvage within the commercial harbor area and the preparation of the pollution prevention equipment and personnel.
- (XI) Oversee and undertake the marine pollution prevention operation in harbors (commercial harbors) under its purview in accordance with Marine Pollution Control Act.
- (XII) Oversee the preparation of marine salvage equipment and personnel within the commercial harbor area.
- (XIII) Oversee the requisition, allocation and planning of civil transportation and salvage equipment.
- (XIV) Strengthen the professional training of crew members of commercial vessels.
- (XV) Supervise the establishment of a lighthouse and other navigation aids in areas outside the commercial harbors.
- (XVI) Oversee other marine casualty prevention and protection matters.

II. Ocean Affairs Council

- (I) Oversee the formulation of marine salvage operating protocols.
- (II) Oversee the formulation of marine pollution response operating protocols.

III. Coast Guard Administration, Ocean Affairs Council

- (I) Formulate the marine salvage operating protocols and oversee the formulation of a detailed execution salvage plan of various coast guard agencies to facilitate the salvage operation.
- (II) Establish the police reporting system and oversee the establishment of a liaison mechanism for mutual coordination

between various coast guard agencies in the regions, salvage units and medical institutions.

- (III) Strengthen the professional competence of law enforcers via education and training on measures for maintaining marine traffic order.
- (IV) Oversee the preparation of boats, equipment, machineries and manpower for executing marine salvage. Organize regular exercises.
- (V) Execute the operation of marine pollution prevention in accordance with Marine Pollution Control Act.
- (VI) Assist in the execution of emergency transportation for casualties at sea.
- (VII) Collaborate with port management agencies (affiliated institutions) in executing harbor access control at area within forecasted typhoon route.

IV. Ocean Conservation Administration, Ocean Affairs Council

- (I) Establish the response method for shore and marine oil pollution. Collaborate with local governments, oil companies and marine oil pollution prevention agencies in organizing oil spills cleanup exercises.
- (II) Oversee local governments or shore-side management in strengthening preparation for oil spills cleanup and seawater quality monitoring.
- (III) Coordinate with different marine pollution prevention agencies in the preparation of cleanup equipment and machineries and organization of exercises.
- (IV) Establish the marine oil pollution reporting system and oversee local governments in strengthening the liaison and coordination with the relevant agencies.

V. Ministry of the Interior

- (I) Oversee the preparation of helicopters, equipment, machineries

and personnel.

- (II) Oversee the adequacy of equipment and machineries.
- (III) Oversee local governments in the preparation of refrigerators and body bags for victims.
- (IV) Oversee the operation plan for marine casualty prevention and protection formulated by the management of harbors (yacht harbors) under its purview.
- (V) Oversee the management of harbors (yacht harbors) in disaster alleviation, preparation, organization of salvage exercises and drills.
- (VI) Oversee the drawing of the marine chart of the seas of Taiwan and the collection of hydrological information.
- (VII) Oversee the marine salvage, preparation and training within various harbors.
- (VIII) Oversee and undertake the marine pollution prevention operation in harbors (yacht harbors) under its purview in accordance with Marine Pollution Control Act.

VI. Ministry of National Defense

- (I) Collaborate with the central competent authority for marine casualty prevention and protection in executing the preparation of major marine casualty responses.
- (II) Oversee the naval base management in preparing the supporting equipment and personnel in marine salvage.
- (III) Oversee the operation plan for marine casualty prevention and protection formulated by the management of harbors (naval bases) under its purview.
- (IV) Oversee the management of harbors (naval bases) in disaster alleviation, preparation, organization of salvage exercises and drills.
- (V) Oversee and undertake the marine pollution prevention operation in harbors (naval bases) under its purview in accordance with

Marine Pollution Control Act.

VII. Ministry of Education

- (I) Oversee maritime academies in strengthening the training for students on marine casualty preventive response, marine safety and crew member safety.
- (II) Strengthen the screening of video clips and education for schools of all levels.

VIII. Ministry of Economic Affairs

- (I) Oversee the management of harbors (industrial harbors, appropriated wharf area, and cargo loading and unloading area) under its purview, and the industrial harbors, including the corresponding operation plan for disaster prevention and protection in accordance with the Plan so as to handle the marine salvage operation.
- (II) Oversee the management of harbors ((industrial harbors, appropriated wharf area, and cargo loading and unloading area) and offshore wind farm operators in disaster alleviation, preparation, organization of salvage exercises and drills.
- (III) Oversee and coordinate utility companies under its purview, management agencies (affiliated institutions) of industrial harbors and offshore wind farm operators in undertaking or supporting the operation of marine salvage.
- (IV) Oversee and undertake the marine pollution prevention operation in harbors (industrial harbors, appropriated wharf area, and cargo loading and unloading area) under its purview in accordance with Marine Pollution Control Act.

IX. Ministry of Health and Welfare

- (I) Oversee the local governments in formulating the implementation plan of emergency medical care. Undertake the operation of emergency medical care.

- (II) Oversee the local governments in preparing the planning for victim shelters.
- (III) Assist in executing the waste treatment planning, including waste arising from the epidemic.

X. Council of Agriculture, Executive Yuan

- (I) Oversee local fishery authorities in integrating the operation plan for disaster prevention and protection involving fishing harbors and fishing vessels into the local governments' disaster prevention and protection operation. Implement marine casualty prevention, disaster alleviation preparation and training for disaster prevention and protection.
- (II) Inform fishermen to avoid sea areas or return to harbors as soon as possible during typhoons.
- (III) When a warning for a land typhoon is issued, in accordance with Disaster Prevention and Protection Act, Article 31, consolidate and provide support to the local governments in getting fishermen to evacuate to the shore.
- (IV) Oversee and undertake the marine pollution prevention operation in harbors (fishing harbors) under its purview in accordance with Marine Pollution Control Act.
- (V) Organize the basic marine safety training for crew members of fishing vessels.
- (VI) Oversee shipowners of fishing vessels in observing regulations pertaining to crew member qualification and minimum resting hours. Implement routine maintenance and repair for fishing vessels.

XI. Environmental Protection Administration, Executive Yuan

Assist in the execution of waste treatment planning.

XII. National Rescue Command Center

Oversee the allocation and coordination of the standby

resources for marine salvage or air search and rescue; or liaise with overseas agencies to rapidly execute the search and rescue mission, and emergency transportation for casualties.

XIII. National Communications Commission

Oversee the management of radio stations on vessels.

XIV. Municipal and county (city) governments

- (I) Formulate the regional marine casualty prevention and protection policies and operating plans.
- (II) Establish the collaborating mechanism and protocols for marine casualty emergency response.
- (III) Strengthen the disaster prevention and response education, seminars, training, exercises and awareness of the relevant personnel and the public.
- (IV) Assist in educating the public in establishing awareness for marine casualty prevention and protection.
- (V) Oversee the operation plan for marine casualty prevention and protection formulated by the management of harbors (fishing, commercial and yacht harbors) under its purview.
- (VI) Oversee the management of harbors (fishing, commercial and yacht harbors) in disaster alleviation, preparation, organization of salvage exercises and drills.
- (VII) Oversee and assist port management agencies under its purview to strengthen the preparation of marine salvage equipment within the harbor and shore side, and the readiness and training of personnel.
- (VIII) Oversee the fire departments (119) on marine casualty reports and salvage operation of regional fishing harbors and cruises at scenic spots.
- (IX) Oversee the planning and preparation of other collaboration in marine salvage.
- (X) Conduct inspection on danger zone, set up the perimeter of

controlled area and impose restrictions and prohibitions on controlled area when disaster occurs.

Part IV Marine Casualty Emergency Response

Chapter 1 Transmission of Maritime Distress Alerting Signal

In accordance with The Law of Ships, Ship and Boat Equipment Regulations and Small Vessel Management Regulations, vessels with R.O.C. nationality must install radiotelegraphy equipment of the corresponding vessel classification according to their gross tonnage and distance from the coast on the navigation water. For the Marine Casualty Incident Emergency Reporting System, please see Figure 1.

- I. When vessels send out distress signals of a radio communication system in dangerous situations on the sea, they shall utilize the radiotelegraphy equipment installed on-board to alert the coast stations, Taipei Mission Control Center (TAMCC), fisheries radio broadcasting stations and nearby harbor signal stations (vessel control center/VTS center).
- (I) Emergency Position Indicating Radio Beacons (EPIRB) is installed on-board. After initiated, the information will be transmitted from Cospas-Sarsat to TAMCC. After confirmed by TAMCC (including the identity of vessel in distress and satellite positioning), the information shall be forwarded to the Ocean Affairs Council, Coast Guard Administration and issue multiple notifications to the relevant agencies.
- (II) Radio communication system of the medium frequency (MF), high frequency (HF) and very high frequency (VHF) installed on vessels allows them to utilize, for example, Channel 16 (CH16), in which the signal is forwarded to the Keelung Radio via coast stations all over the country. After confirmation by Keelung Radio, the information is then forwarded to the Ocean Affairs Council and Coast Guard Administration. Multiple notifications shall be issued to the relevant agencies.

- (III) If fishing vessels possess wireless transceivers, they are able to send distress signals to fisheries radio broadcasting stations established by Fisheries Agency. The stations can in turn, inform the Ocean Affairs Council and Coast Guard Administration, as well as issue multiple notifications to the relevant agencies.
 - (IV) Crew members on-board can also use mobile phones to call Hotline 118, i.e. service hotline of Coast Guard Administration, to seek help from the Ocean Affairs Council and Coast Guard Administration when in distress.
- II. When encountering distress situations, vessels may send out distress signals of non-radio communication system for help:
- (I) When the vessels on the water nearby see the distress signal, in accordance with Maritime Act, Article 102 and 109, the shipmasters are bound, so far as they can do so without serious danger to their ship, crews and passengers thereon, to render assistance to any persons in danger of being lost at sea or in distress; except there is a force majeure circumstance, the shipmasters shall stand by at the site of the disaster until it is obvious that the assistance to the ship continually would be useless; the shipmasters shall use the wireless equipment on-board, so far as possible, inform coast stations (e.g. VHF CH16) the name of the ship in distress, her port of registry, and the places where she had departed from and is bound for.
 - (II) When discovering the distress signal issued by a vessel at sea, members of the public can call Hotline 118 to inform the duty command centers of the Ocean Affairs Council and Coast Guard Administration of the position of the vessel in distress and file a report.

Chapter 2 Marine Casualty Report and Measures

When Keelung Radio, TAMCC, fisheries radio broadcasting stations, harbor signal stations nearby (vessel control center) receive a distress signal from a vessel, after confirmation, the information shall be forwarded to the Ocean Affairs Council and Coast Guard Administration, and multiple notifications to the relevant agencies shall be issued. Depending on the situation, the Ocean Affairs Council, Coast Guard Administration and all relevant agencies shall dispatch aircrafts and vessels for search and rescue.

- I. When all relevant agencies receive reporting on a distress situation, after confirmation, they shall evaluate the magnitude of the marine casualty in accordance with the Marine Casualty Disaster Magnitude and Reporting Hierarchy (Table 2) and fill in the Marine Casualty Disaster Report (Table 1). They shall file a report according to the illustration in the Marine Casualty Incident Emergency Reporting System (Figure 1).
- II. Marine casualties of Class A magnitude shall be reported to the Executive Yuan. Marine casualties of Class B magnitude shall be reported to the National Fire Agency of the Ministry of the Interior, Ocean Affairs Council, Coast Guard Administration and Ocean Conservation Administration, Council of Agriculture (fishing vessels), Ministry of Transportation and Communications, Ministry of Economic Affairs (pertaining to marine casualties caused by offshore wind power generation). Marine casualties of Class C magnitude shall be reported to the Fire Department and relevant competent authorities of municipal and county (city) governments for disaster response (local coast guard units, port communication centers, Bureau of Energy, Maritime and Port Bureau and maritime affair centers, etc.)
- III. Marine casualty disaster reports shall include the Marine Casualty Disaster Report (Table 1), coordinates of the site where the marine

casualty occurs, time of occurrence, number of people on board, vessel specifications (gross tonnage), and damage conditions.

IV. Marine casualty reports pertaining to marine pollution matters shall simultaneously be made to the relevant environmental protection agencies to undertake response measures in accordance with the Marine Pollution Control Act.

V. All relevant units must regularly maintain a 24-hour marine casualty reporting system and a contact list of the marine casualty emergency response team, contact numbers, fax numbers, and other information. The information shall be updated regularly. The contact list of the marine casualty emergency response team and their scope of duties must also be regularly updated.

Chapter 3 Emergency Response System

Section 1 Sea Transport Emergency Response System

In the event of a marine casualty, shipping lines, offshore wind farms and fishery operators shall undertake the necessary measures promptly to prevent the spread of disaster. The disaster data collection, reporting and emergency response mechanism shall be initiated promptly, whilst the Ministry of Transportation and Communications, Ministry of Economic Affairs, Council of Agriculture and local governments shall be informed of the emergency response measures.

Section 2 Establishment and Support of Disaster Response Center

I. Once the local government receives marine casualty reporting, depending on the magnitude of the disaster, it shall set up a disaster response center or emergency response team to undertake data collection, reporting of disaster information, and other necessary response measures. They shall also report the response status and list out the supporting items required to the Ministry of

Transportation and Communications or the Central Emergency Operation Center.

II. In the event of a marine casualty, depending on the magnitude and nature of the disaster, the Ministry of Transportation and Communications shall determine whether to establish the Central Emergency Operation Center to manage disaster relief resources and undertake response measures by ways of coordination, supervision, and command. Where necessary, it shall also request the vessel management authority to assist in the supervision and command of the response.

III. Inter-county/city support

Depending on the magnitude of disaster, the local governments shall solicit the support of neighboring governments based on mutual support protocols established beforehand.

IV. Sending manpower to disaster sites

Depending on the magnitude of disaster, the Ministry of Transportation and Communications, Maritime and Port Bureau, Ministry of Economic Affairs, Council of Agriculture, Fisheries Agency or Central Emergency Operation Center and local governments shall actively send coordinators on-site to monitor the disaster situation and implement the appropriate emergency response measures; if necessary, they shall set up a forward coordination post at or near the disaster site.

V. National army support

(I) Based on the magnitude of the disaster, where the local government concludes that it cannot adequately respond to the disaster due to the severity of the disaster and needs to apply for support from the national army, it may request support for disaster relief from the national army in accordance with Disaster Prevention and Protection Act and the Regulations on National Army Assistance in Disaster Prevention and

Protection.

- (II) The national army may actively assist in the search and rescue when it learns of a large magnitude marine casualty.

Section 3 Search, Rescue and Emergency Medical Care

I. Search

- (I) The National Rescue Command Center, Ministry of Transportation and Communications, Ministry of National Defense, Ministry of the Interior and Ocean Affairs Council and Coast Guard Administration shall effectively utilize airplanes (vessels) and other diverse methods to conduct the search and maintain contact with one another. Where necessary, the Ministry of Transportation and Communications, Maritime and Port Bureau, Council of Agriculture and Fisheries Agency shall utilize the position reporting system, navigation warning, to request vessels in the vicinity to provide assistance in the search.
- (II) Depending on the magnitude of disaster, the Central Emergency Operation Center, forward coordination post, National Rescue Command Center or forward command posts of local governments shall actively or pursuant to requests, coordinate operations to ensure that the search and emergency medical care are implemented effectively.
- (III) The disaster response centers of different levels shall, according to their needs, notify local disaster prevention and protection organizations (volunteer organizations) to assist in the search and rescue, emergency care and casualty transportation. Where necessary, they may requisition relevant professional personnel and salvage equipment from the private sector.

II. Emergency medical care

- (I) The shipping lines, offshore wind farm and fishery operators shall coordinate with medical institutions on identity verification for both victims killed onsite and casualties admitted to medical

institutions, as well as registering and reporting to the response center (team). They shall also liaise with passengers, seafarers, family members, and related personnel who do not suffer injury and help them make arrangements in accommodations and transportation.

- (II) The local governments shall initiate emergency medical care systems, and command, integrate and coordinate medical resources in disaster-struck areas and notify disaster response centers of different levels regarding the overall casualty status. Where necessary, they may request the Central Emergency Operation Center to provide support. They shall also evaluate the capacity of emergency care responsibility hospitals under their purview based on the number of casualties. Where necessary, they shall notify neighboring local governments to assist in treating the casualties or file a request to the Ministry of Health and Welfare for further support.
- (III) The Ministry of Health and Welfare shall keep itself informed of the casualties admitted to hospitals and provide support to local governments in patient admission.
- (IV) Healthcare competent authorities of different levels shall perform the reporting operation pursuant to information reporting procedures on large volume casualties and emergency patient admission due to special incidents.

Section 4 Temporary Shelter

- I. In the event of a disaster, local governments and port management agencies (affiliated institutions) shall, according to their needs, set up temporary shelters to provide assistance to family members of victims after discussing with the relevant authorities. The Ministry of Transportation and Communications, Maritime and Port Bureau, Council of Agriculture, Fisheries Agency may coordinate

with shipping lines and fishery operators to provide temporary shelters to stranded passengers or personnel.

- II. The local governments and port management agencies (affiliated institutions) shall manage the temporary shelters properly, plan the notification of relevant information, and provide food, drinking water and sanitation service. Where necessary, they shall seek assistance from local residents or disaster prevention and protection organizations (volunteer organizations).
- III. The local governments shall set up various temporary processing sites for the relevant disaster relief units, supporting agencies and organizations to swiftly take position to commence rescue operations.
- IV. The Ministry of Health and Welfare shall supervise local governments to establish temporary shelters for victims, prepare supplies for shelters, monitor any epidemic of infectious disease, and manage individual cases.
- V. The Ministry of Education shall oversee social education centers (institutes) and coordinate with schools of all levels to help accommodate disaster-struck victims.
- VI. Where there is a shortage of equipment or devices in the temporary shelters and additional supplies are required, the local governments and port management agencies (affiliated institutions) shall make request to the Central Emergency Operation Center to provide logistical support and supplies.
- VII. For temporary shelters, the communication methods, guidance, use of communication aids and service dogs, and other assisting devices (including obstacle-free installations) shall be taken into consideration. Furthermore, for the rescue, evacuation and shelter provision, the easy-read version for information on matters requiring cooperation from disabled victims or victim families, traffic flow design of the shelters and information on the

distribution of daily necessities shall also be taken into consideration.

Section 5 Public Sanitation, Medical Services, Disinfection Measure and Disease Prevention

I. Public sanitation and medical services

- (I) The Ministry of Health and Welfare shall monitor the demand for medications and medical supplies at all times to ensure their adequacy.
- (II) The local governments and port management agencies (affiliated institutions) shall maintain good sanitary conditions in the temporary shelters and provide medical services. In addition, to provide a good environment for temporary shelters, temporary toilets shall be set up and the basic waste treatment shall be undertaken.

II. Disinfection measure and disease prevention

- (I) The local governments, port management agencies (affiliated institutions) shall undertake the necessary disinfection and disease prevention measures on disaster-struck areas to prevent the spread of diseases. For the allocation of anti-epidemic personnel and medical supplies, where necessary, they shall make a request to the relevant central government authorities to solicit assistance from other local governments.
- (II) The Environment Protection Administration shall supervise local environmental protection authorities in strengthening the waste cleanup at the shore side of the disaster area.
- (III) The Environmental Protection Administration shall supervise local environmental protection authorities in conducting the necessary monitoring in the event of massive emissions of air pollutants.

Section 6 Providing Disaster-Struck Victims with Information

Updates

Based on the location of disaster and vessel type, the Ministry of Transportation and Communications, Maritime and Port Bureau, Ministry of Economic Affairs, Council of Agriculture, Fisheries Agency or Central Emergency Operation Center and other competent authorities shall undertake the provision of new updates. The relevant units shall also provide assistance.

I. Providing updates regarding the disaster to victims and family members

- (I) The competent authority shall be tasked to provide the relevant disaster information to the victim's families.
- (II) The Ministry of Foreign Affairs and Mainland Affairs Council shall provide assistance in handling casualties or disappearance involving foreigners, Mainlanders, Hong Kong and Macau residents.

II. Providing updates regarding the disaster to the public

- (I) With the assistance of media outlets, the competent authority shall be tasked to provide the correct information on marine casualty to the public.
- (II) If necessary, the Central Emergency Operation Center commander shall designate the relevant agencies to strengthen the reporting on marine casualty response measures and keep the public updated via media outlets.

III. Disaster information inquiries

The competent authority shall provide an avenue for inquiries and establish a special telephone service or inquiry avenue. Meanwhile, considering the information needs of persons with disabilities, the competent authority shall provide obstacle-free methods to disseminate information.

Section 7 Principles of Disclosing Personal Information of Seafarers

and Passengers

- I. Personal information of the deceased: The deceased's personal information is not protected by the Personal Data Protection Act and shall be made public where necessary.
- II. Personal information of missing persons: For any member of the public who becomes a missing person in the event of a catastrophe, interested parties may apply to the court to declare the missing person dead one year after the catastrophe occurs. Before declaring dead, the Personal Data Protection Act shall still be applicable to the personal information of the missing person.
- III. Personal information of survivors: After the occurrence of a catastrophe, regardless of public or private sector, announcing the list of survivors so that their families can be informed of the situation shall be deemed as a legitimate use for special reasons (administration of disaster prevention and protection or customer management and service). Even if the announcement is not deemed to be for special reasons, if the announcement is helpful in alleviating the panic of the victim families and the public, and allow the public and private sectors to keep informed and direct the use of rescue resources, it shall also be deemed as “promoting public interest” and not in violation of the Personal Data Protection Act. To meet the principle of proportionality and necessity test, the names, gender, age of the survivors and other preliminary personal information that are sufficient for identification (not including date of birth and ID number) shall be made public. As for information on casualties admitted into hospital, the personal safety of the casualties shall be taken into consideration.
- IV. For official needs, where necessary, the government agencies shall provide the names, household registration, severity of injuries and ward number of survivors, contact information of families of the

deceased and other personal information to other government agencies for official use.

- V. Legislators are tasked with supervising the government. The government agencies receiving supervision may also provide the necessary information to legislators based on special reasons and promote public interest.

Section 8 Prevention of Secondary Disasters

Where a marine casualty poses a danger or imminent danger to the navigation of vessels, the Ministry of Transportation and Communications, Maritime and Port Bureau, Council of Agriculture, Fisheries Agency, Ocean Affairs Council, Coast Guard Administration, port management agencies (affiliated institutions) shall immediately take necessary measures. Where necessary, they shall organize and guide the vessels in navigation. They shall also compel or advise the owner of the vessel that caused the disaster to take necessary steps, such as removing the vessel to prevent posing hazards to other vessels in transit.

Chapter 4 Grouping for General Marine Casualties and Material Marine Casualties

Section 1 Grouping for General Marine Casualties

- I. For general marine casualties with less than 14 casualties or missing persons, the Ocean Affairs Council and Coast Guard Administration shall be tasked with the rescue response in areas outside the port area, whilst the port management agencies (affiliated institutions) shall be tasked with the rescue response in areas within the port area. The Ministry of Transportation and Communications, Maritime Port Bureau, Council of Agriculture and Fisheries Agency shall be tasked with the consolidation, supervision, management, and coordination of operations within and without the port. The standing Duty Command Center of

various agencies or the response team established by the agencies shall be tasked with executing the disaster relief and undertaking liaising matters.

II. To process marine casualty disaster prevention and rescue matters, the Maritime and Port Bureau and maritime affair centers shall undertake the emergency disaster response for areas under its purview and establish the Disaster Emergency Response Team Operation Guidelines. Based on the development of the disaster, the disaster emergency response team shall be set up when:

(I) Timing of the establishment: The disaster emergency response team shall be established when there is a casualty arising from an incident involving a non-fishing vessel in operation in an area outside the port.

(II) Stationing unit: The stationing units shall be formed by the Maritime and Port Bureau, maritime affair centers and other emergency response teams after the approval of their conveners. The units shall undertake various emergency response tasks. They shall also, based on the development of the disaster and after reporting to the convener and obtaining approval, notify other agencies (units and organizations) to assign personnel to join the units or participate in the response meetings, providing assistance in related response operations. Where necessary, they shall form the relevant grouping based on the grouping of the Central Emergency Operation Center for marine casualty.

(III) Division of duties after the vessel of the incident enters port:

1. After the vessel arrives at the commercial port, the disaster response team shall be formed by the TIPC branch company or the commercial port management under the purview of local governments to prepare for on-site berth arrangements, vessel berthing, casualty transportation, and rescue and assistance to personnel. The TIPC branch company or the commercial port

management under the purview of local governments shall designate an incident commander to direct the entering of manpower of disaster relief and resources into the port, whilst arranging suitable sites for passenger relief and accommodations.

2. Maritime and Port Bureau shall assist in organizing related response operations.

3. If the resources for marine salvage reach the fishing or yacht harbor, the county/city government of the harbor shall activate response mechanisms in accordance with the regional operation plan for disaster prevention and protection

III. The response for marine casualties involving fishing vessels is undertaken by the Council of Agriculture and Fisheries Agency. In contrast, the response for marine casualties at various harbor areas (including commercial harbors, fishing harbors, industrial harbors, appropriated wharf area and yacht harbors) are undertaken by port management agencies (affiliated institutions). The Council of Agriculture, Fisheries Agency and port management agencies (affiliated institutions) are allowed to establish a disaster response team in accordance with the aforementioned regulations to undertake the marine salvage response.

IV. The relevant units responsible for marine casualty disaster relief include the following: the municipal and county (city) governments (fishing and yacht harbors under their purview, and jurisdictional sea), Ministry of Economic Affairs (industrial harbors under its purview and offshore wind farm operators), Taiwan International Ports Corporation, Ltd. (various port branch offices), Coast Guard Administration, Fisheries Agency (fishing harbors), various commercial harbor management agencies (affiliated institutions) (commercial harbors), Tourism Bureau (yacht harbors), Construction and Planning Agency (yacht

harbors), various harbor police departments, National Fire Agency and various harbor fire brigades.

Section 2 Grouping for Material Marine Casualties

The Central Emergency Operation Center for marine casualty shall be established (in accordance with Disaster Prevention and Protection Act, Article 13, and Operation Guidelines for Central Emergency Operation Center. For standard operating procedures of Central Emergency Operation Center for marine casualty, please see Appendix 7).

I. The missions of the Central Emergency Operation Center for marine casualty are as follows:

- (I) Strengthen the vertical command, supervision, horizontal coordination, and liaison of the relevant agencies (affiliated institutions) responsible for disaster prevention and protection and undertake various disaster response measures.
- (II) Monitor the development of disaster, provide disaster information promptly, and notify relevant units to undertake response measures.
- (III) Undertake data collection, evaluation, processing, compilation, and reporting disaster development information.
- (IV) Undertake the distribution and support for emergency disaster relief manpower and resources.
- (V) Undertake other salvage measures.

II. Timing for the establishment of the Central Emergency Operation Center for marine casualty and the commander:

In the event of marine casualties occurring within the scope of search and rescue of Taiwan with severe damage to the vessel and more than 15 estimated casualties or missing persons, or a leak or imminent leak of residual fuel oil exceeding 700 metric tonnes, and the conditions are severe, once the Ministry of Transportation and Communications deems the establishment of the center necessary, and the center is thereof,

established, it shall immediately report to the convener of the Central Disaster Prevention and Response Council (hereafter, the Council Convener). The Council Convener shall designate the Minister of Transportation and Communications to serve as the incident commander to oversee the disaster response of the operation center. The Council Convener shall designate one to five Ministers Without Portfolio of the Executive Yuan and other directors of central competent authorities for disaster prevention and protection to assist the commander in undertaking disaster response. The commander shall designate one to five deputy commanders. One of the deputy commanders shall be the Director-general of the National Fire Agency. Meanwhile, In the event of the marine casualty giving rise to an oil leak, one of the deputy commanders shall be the director-general of the Ocean Conservation Administration to provide assistance to the commander and coordinate with the commander in undertaking the response measures.

III. Stationing agencies and personnel of the Central Emergency Operation Center for marine casualty:

The Ministry of Transportation and Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Economic Affairs, Ministry of Justice, Council of Agriculture, Ministry of Health and Welfare, Environmental Protection Administration, Mainland Affairs Council, Ocean Affairs Council, Coast Guard Administration, Ocean Conservation Administration, Office of Disaster Management, Department of Information Services shall send personnel to join the operation center to undertake the emergency response measures. Depending on the severity of marine casualty, they shall notify other agencies (units and organizations) to designate personnel to join the operation

center upon the approval of the commander.

IV. Operating procedures of Central Emergency Operation Center for marine casualty:

- (I) In principle, the Central Emergency Operation Center for marine casualty shall be set up in the National Fire Agency. The central competent authorities and other relevant agencies overseeing disaster prevention and protection shall be tasked with undertaking emergency response measures and administrative support matters. The National Fire Agency shall be tasked with operating and maintaining the information and telecommunication facilities.
- (II) After the Central Emergency Operation Center for marine casualty is established, the commander shall announce the establishment and information related to the disaster in person or designate a personnel to do so.
- (III) For the establishment or dissolution of Central Emergency Operation Center for marine casualty, the commander shall inform the stationing units to designate personnel to join or retreat from the operation center after reporting to the Council Convener of his decision.
- (IV) After authorities assign personnel to the Central Emergency Operation Center for marine casualty, the commander or deputy commander shall immediately convene a disaster relief preparatory meeting to learn about the conditions of the emergency response of the relevant units and the development of disaster, as well as issuing directives on relevant response measures.
- (V) In the event of a disaster or imminent disaster, designated stationing personnel shall keep informed of the status of emergency response undertaken by various agencies and the development of a disaster. They shall also report the status of

the response to the commander or deputy commander at any time.

- (VI) Designated stationing personnel to the Central Emergency Operation Center for marine casualty shall accept directives, coordination, and integration measures issued by the commander.
- (VII) After the establishment of the Central Emergency Operation Center, depending on the development of the disaster or liaison need, the municipal, county and city governments shall be notified to establish the regional emergency operation center.
- (VIII) After the dissolution of the Central Emergency Operation Center for marine casualty, the stationing authorities shall make detailed documentation on the relevant response measures undertaken during which the operation center is still in service and submit the documentation to the Ministry of Transportation and Communications for compilation and reporting. The post-disaster restoration measures shall be undertaken by relevant authorities according to their scope of responsibilities.
- (IX) The competent authority of disaster prevention and protection shall consolidate the relevant information from the municipal and county (city) governments, and complete the report of the Central Emergency Operation Center for marine casualty before submitting it to the Executive Yuan within three months after the operation center is dissolved.

V. Establishment of emergency response teams by relevant agencies (affiliated institutions) for marine casualties:

To undertake marine casualty prevention and rescue matters or collaborate with the Central Emergency Operation Center for marine casualty on executing response measures, the relevant agencies (affiliated institutions) for marine casualties or agencies (affiliated institutions) designated by the center

shall set up emergency response teams and establish emergency response mechanisms:

- (I) The convener of the emergency response team shall be led by one of the heads of agencies and unit supervisors. The convener shall organize the grouping of relevant units, personnel, and affiliated agencies and designate the supervisors of the operation units responsible for marine casualty prevention and protection as the task force leaders of the team. They shall serve as the liaisons for different agencies or units the marine casualty disaster prevention and protection.
- (II) The emergency response teams shall be provided with a fixed operation site, as well as fax, telephone, and other necessary equipment. They shall designate personnel on 24-hour standby to take telephone calls and fax reports. In the event of an emergency, they shall report immediately and undertake the necessary measures.
- (III) Emergency response teams shall immediately commence operations in the event of a disaster or imminent disaster and actively liaise, coordinate, or report. They shall also collect data, verify, compile and report information on the development of disaster, as well as undertaking emergency salvage and allocation of disaster relief resources, etc.
- (IV) The emergency response teams shall cooperate with disaster response measures after the establishment of the operation center and continue operation until the disaster is resolved.

VI. Central Emergency Operation Center and marine casualty response team establish forward coordination post:

- (I) Timing of establishment: Depending on the severity of the disaster, local emergency response and request for support, the forward coordination post shall be established after being approved by the commander of the Central Emergency Operation Center or

the convener of the emergency response team. For Regulations Governing the Operation of Forward Coordination Post of the Central Emergency Operation Center for Marine Casualty, please see Appendix 8.

- (II) Stationing unit: In principle, the forward coordination post shall be established at the maritime affair centers of the disaster responsibility operation area designated by the Maritime and Port Bureau. Depending on the disaster situation, after reporting to and being approved by the commander or convener, it shall notify other authorities (units and organizations) to designate personnel to join the operations.

VII. Reduction of grouping and timing of dissolution:

- (I) Reduction of grouping: When the condition of disaster has stopped expanding, the oil leak has been controlled, the situation of the disaster has improved, and the need for emergency response measures has subsided, after reporting to the Ministry of Transportation and Communications, the commander may determine whether to reduce the grouping. Personnel who are no longer required to undertake emergency measures shall be allowed to return to their original position. The remaining stationing personnel shall continue to undertake the necessary response measures.
- (II) Timing of dissolution: When the disaster emergency response measures have been completed, the subsequent restoration can be undertaken by the relevant agencies or units, and no further emergency response measures are required, after reporting to the Ministry of Transportation and Communications, the commander may verbally or submit a written report to the convener to dissolve the operation center.

Section 3 Designation of Incident Commander of Marine Casualties

and the Scope of Duties

- I. To implement the unified command, coordination, and integration of disaster relief resources, in the event of a marine casualty and disaster occurring within a harbor area (commercial and fishing harbors, naval bases, industrial and yacht harbors), the incident commander shall be assumed by the head of the port management agency (affiliated institution) or a personnel designated by the head (please refer to Appendix 6 for Operation Principles of Incident Command for Marine Salvage of Port and Pier). For marine salvage at areas outside harbors, the commander of the coast guard unit of the jurisdiction or his designated personnel shall serve as the incident commander.
- II. For harbors, piers, fishing harbors and coastline areas that are not under the purview of any management authorities and managers, the Coast Guard Administration and the corresponding municipal and county (city) governments shall jointly assume the incident command for the marine salvage.
- III. For marine salvage on sea surface and estuaries, the coast guard unit shall assume the incident command role. For rescue within inland area, the municipal and county (city) governments shall assume the execution role.
- IV. After the establishment of the Central Emergency Operation Center for marine casualty, its commander shall designate a member of a pertinent unit to serve as the incident commander depending on the salvage situation. The incident commander shall direct and integrate all salvage teams of all search and rescue units and their assignments.
- V. According to the Incident Command System issued by the Central Disaster Prevention and Protection Commission, the incident commander shall observe the following guiding principles in undertaking on-site work:

- (I) Establish incident command place.
- (II) Establish the preliminary organization.
- (III) Take into consideration special requirements.
- (IV) Oversee and maintain a proper span of management and authority.
- (V) Dissolve unnecessary units.
- (VI) Personnel of the Central Emergency Operation Center's staff units shall avoid being incorporated as the staff of the incident command place. They shall report to the Central Emergency Operation Center where appropriate.

Chapter 5 Response Measures for Marine Oil Pollution

Section 1 Response Unit and Overall Planning of Response Measures

According to the severity level, marine casualties that cause marine oil pollution shall be managed by the Central Emergency Operation Center for marine casualty or marine oil pollution emergency response centers of different levels, whereby they shall oversee the overall response measures curbing oil leak, cargo damage, leak of residual fuel oil and petroleum, removal of ship, etc.

Section 2 Reporting System

- I. The maritime administration agencies, port management agencies (affiliated institutions), offshore wind farm operators, shore-side management agencies, local governments and relevant units shall immediately report related information to the Ministry of Transportation and Communications, Ministry of Economic Affairs, Ocean Affairs Council, Ocean Conservation Administration and Coast Guard Administration after receiving reports of marine casualty incidents causing marine pollution.
- II. Before the establishment of the Central Emergency Operation Center for marine casualty or marine oil pollution emergency response centers of

different levels, even though the relevant agencies (affiliated institutions) have not joined in yet, they shall still be required to monitor the pollution situation and execute the measures pursuant to their scope of duties. They shall also report to the Ministry of Transportation and Communications, Ocean Affairs Council and Ocean Conservation Administration via telephone, text messages, fax, reporting system or other methods.

- III. After the establishment of the Central Emergency Operation Center for marine casualty or marine oil pollution emergency response centers of different levels, the members of the operation center shall monitor the pollution status at all times, document ongoing status reports, and fax them to the operation center in accordance with reporting procedures.

Section 3 Division of Work (Organization) and Response Level

I. Response level and division of work

- (I) Level 1: In the event of an oil leak or imminent oil leak of less than 100 metric tons (small-scale leak), the shore-side management agencies, local governments or port management agencies (affiliated institutions) shall be tasked with undertaking the response measures. They shall also execute various pollution cleanup measures in accordance with the marine oil pollution emergency response plan formulated.
- (II) Level 2: In the event of an oil leak or imminent oil leak of between 100 metric tons and metric 700 ton—medium-scale or significant leak—the Ministry of Transportation and Communications (in charge of commercial harbors), Ocean Affairs Council (in charge of fishing harbors), Ministry of Economic Affairs (in charge of industrial harbors), Ministry of National Defense (in charge of naval bases), Ministry of the Interior (in charge of national parks), Ocean Affairs Council, Ocean Conservation Administration (in charge of coastline areas), Coast Guard Administration (in charge of sea surface)

shall undertake the response measures. It shall also execute various pollution cleanup measures in accordance with the marine oil pollution emergency response plan formulated.

(III) Level 3: In the event of an oil leak or imminent oil leak of more than 700 metric tons (material leak), the Central Emergency Operation Center for marine casualty shall be tasked with undertaking the response measures.

II. Principles for the activation and division of work of the Central Emergency Operation Center for marine casualty

Where a marine casualty causing material oil pollution is determined, the Ministry of Transportation and Communications shall establish the Central Emergency Operation Center for marine casualty depending on the needs then. The convener shall then designate the Minister of Transportation and Communications (or his proxy) to serve as the incident commander and notify member agencies to the station in the operation center. Furthermore, according to the location of the incident, the following authorities shall establish the incident forward command post and effectively secure the manpower, equipment and resources for the response. The Ocean Affairs Council and Ocean Conservation Administration shall be tasked to oversee the pollution treatment team and coordinate with the pertinent central authorities, local governments and other competent authorities of different levels to undertake the emergency response measures for marine pollution as per organization hierarchy, while reporting back to the Central Emergency Operation Center for a marine casualty with the latest status of the response in a timely manner, so that the operation center can oversee the overall planning of the marine salvage.

(I) Coastline: Ocean Affairs Council and Ocean Conservation Administration.

- (II) Sea surface: Ocean Affairs Council and Coast Guard Administration.
- (III) Commercial harbor area: Ministry of Transportation and Communications (commercial harbor management agencies (affiliated institutions), Maritime and Port Bureau or the designated authorities.
- (IV) Fishing harbor area: Council of Agriculture and Fisheries Agency.
- (V) Industrial harbor area, appropriated wharf area, and cargo loading and unloading area, sea surface facilities: Ministry of Economic Affairs (Industrial Development Bureau or various purpose-driven competent authorities of appropriated wharf area and sea surface facilities)
- (VI) Naval bases: Ministry of National Defense
- (VII) National parks: Ministry of the Interior and Construction and Planning Agency.

III. Members of the Central Emergency Operation Center for marine casualty include the Ocean Affairs Council, Coast Guard Administration, Ocean Conservation Administration, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of Justice, Ministry of National Defense, Financial Supervisory Commission, Ministry of Economic Affairs, Ministry of Transportation and Communications, Ministry of Health and Welfare, Environmental Protection Administration, Council of Agriculture, Ministry of Science and Technology, local governments of where the disaster takes place and other relevant agencies (affiliated institutions). Depending on the needs, each member authority may establish an internal response team and shall actively undertake the relevant response measures.

IV. Reduction of grouping and timing of dissolution:

- (I) When the condition of disaster has stopped expanding, the oil leak has been controlled, the situation of the disaster has improved, and the need for emergency response measures has subsided,

after reporting to the Ministry of Transportation and Communications, the commander may determine whether to reduce the scale of grouping.

- (II) The Central Emergency Operation Center for marine casualty (response team) or authorities executing oil cleanup shall appoint a third party certification service provider to inspect whether the environmental restoration of the polluted area has met the pollution cleanup requirements and has obtained the confirmation of members of the operation center.
- (III) Various authorities shall consistently undertake the subsequent monitoring and evaluation of the pollution effect on the environment.
- (IV) After the Central Emergency Operation Center for marine casualty has completed its task and is dissolved, depending on actual needs, it shall pass over the incident command place to the authorities to continue with the subsequent work etc. Furthermore, the distribution of claims shall be made in accordance with the Plan.

V. For the preventive measures of marine oil pollution, please see the Marine Pollution Control Act and Contingency Plans for Major Marine Oil Pollution Emergencies.

Chapter 6 Emergency Response Measures Implemented by Individual Authorities

I. Ministry of Transportation and Communications

- (I) For marine pollution caused by marine casualties (vessels in distress), the Ministry of Transportation and Communications is the convening authority that activates the emergency response mechanism.
- (II) Requisition and allocation of transportation vehicles.

- (III) Provide information on sea and weather conditions.
- (IV) Coordinate with transportation operators in providing refrigeration containers required to store the deceased.
- (V) Oversee marine salvage authorities and agencies of all levels in undertaking the marine salvage and rescue at harbor area (commercial and fishing harbors, naval bases, industrial and yacht harbors).
- (VI) Undertake other marine casualty response measures.

II. Ocean Affairs Council

Oversee the undertaking of marine salvage and marine oil pollution response measures.

III. Coast Guard Administration, Ocean Affairs Council

- (I) Undertake evidence collection and other measures for marine casualties of offshore vessels.
- (II) Undertake the search, rescue, and emergency aid for vessels and personnel in marine casualties, as well as aircrafts and personnel in offshore crashes.
- (III) Promptly collect the marine casualty information within the vicinity of the incident and report information in accordance with the regulations on emergency reporting operations for marine casualties.
- (IV) Maintain the alertness and order at the coastal control zones.
- (V) Assist in the execution of marine casualty and marine pollution response for vessels.
- (VI) Assist the maritime administration or port management agencies (affiliated institutions) in the necessary marine traffic dispersion and control measures.
- (VII) Assist in emergency transportation for salvage manpower, supplies and victims.

IV. Ocean Conservation Administration, Ocean Affairs Council

- (I) Undertake the marine casualty and marine pollution response for vessels in accordance with Marine Pollution Control Act.
- (II) Use dispersion software or radar to monitor the spread of oil leaks.
- (III) Use satellite remote surveillance to evaluate the scope of the pollution.
- (IV) Supervise coastal pollution monitoring and evaluation of the pollution boundaries.
- (V) Oversee local governments or shore-side management in seawater sampling and pollutant monitoring.
- (VI) Oversee local governments and shore-side management in the undertaking of pollution cleanup and other response measures for environmental protection.
- (VII) Assist the local governments of where the marine casualty takes place to formulate the cleanup plan according to the content of the local marine pollution response map. The content shall include the cleanup area, degree of cleanup, monitoring, duration of cleanup, mobilization capacity and other strategic considerations.

V. Ministry of National Defense

As per the directive of the commander of the Central Emergency Operation Center, the following work shall be undertaken:

- (I) Oversee the national army on standby to execute major marine salvage and search for survivors.
- (II) Undertake the marine casualty emergency response measures on naval bases under its purview.
- (III) Assist various disaster prevention and protection authorities in rescue missions of emergency response measures.

VI. Ministry of the Interior

- (I) Oversee the marine casualty emergency response measures on

yacht harbors under its purview.

- (II) Oversee and assist the fire departments in executing rescue measures for marine casualties taking place in coastal areas.
- (III) Oversee and assist local governments in handling bodies of victims and funerary matters; where necessary, coordinate with related agencies (affiliated institutions) for the undertaking.
- (IV) Oversee and execute the guard duty at the coastal area of the disaster and traffic dispersion; and assist in the autopsy of the deceased.
- (V) Oversee the assistance provided by local governments in maintaining the alertness and order at the coastal control zones.
- (VI) Provide marine chart and other charting information for the underwater marine salvage.

VII. Ministry of Foreign Affairs

- (I) Assist in the nationality verification of foreign casualties or missing persons and the shipowner.
- (II) Coordinate and liaise to secure foreign aid resources in cases of severe disasters.
- (III) Supervise embassies (consulates) in foreign regions to provide proper assistance for search and rescue and disaster relief operations for merchant vessels, fishing boats, and seafarers of Taiwan involved in marine casualties overseas.
- (IV) Other related coordination and liaison for affairs that involve foreign countries.

VIII. Ministry of Justice

Oversee local prosecutors' offices in completing the autopsies of victims as quickly as possible.

IX. Ministry of Economic Affairs

- (I) Oversee management of harbors (industrial harbors) under its purview and offshore wind farm operators undertaking marine

casualty response measures.

- (II) Oversee and undertake the marine casualty and marine pollution response for harbor (industrial harbors) under the purview and vessels at offshore wind farm operators in accordance with Marine Pollution Control Act.

X. Ministry of Health and Welfare

Monitor the activation of the emergency medical care system of local governments and their capacity after receiving marine casualty reports and provide the necessary assistance.

XI. Council of Agriculture, Executive Yuan

- (I) Oversee the fishing harbor authorities (interim management) in executing the marine salvage at the fishing harbor.
- (II) Provide information on the nationality, crew members, seafarers, gross tonnage, etc. of the fishing vessel involved in the incident.
- (III) Undertake the marine salvage rescue and response.
- (IV) Supervise fisheries radio broadcasting stations and Fishery Radio Station in executing marine salvage notifications.

XII. Environmental Protection Administration, Executive Yuan

Monitor local governments' performance and waste treatment of oil cleanup after receiving marine casualty reports.

XIII. Mainland Affairs Council

- (I) Assist in liaising with the agencies from Mainland China, Hong Kong and Macau to assist casualties, seafarers or otherwise, from the said areas and arrange for their families coming to Taiwan.
- (II) Assist in liaising with the agencies from Mainland China, Hong Kong and Macau to handle matters pertaining to marine casualties.

XIV. National Rescue Command Center

In accordance with the operating guidelines of the National

Rescue Command Center, undertake the search and rescue, and emergency casualty transportation to medical institutions.

XV. Department of Information Services, Executive Yuan

Assist the central competent authorities of disaster prevention and protection. Via mass media, strengthen the news reporting on response measures and disseminate the latest information to the public.

XVI. Office of Disaster Management, Executive Yuan

Undertake the analysis on information of disaster and salvage strategy. Provide recommendations to the incident commander for decision making. Oversee and evaluate the marine salvage measures undertaken by various Central Emergency Operation Center agencies.

XVII. Municipal and county (city) governments

- (I) Execute the marine casualty response measures in all harbors and scenic spots under its purview.
- (II) Oversee and undertake the marine casualty and marine pollution response for harbor (fishing, commercial and yacht harbors) under the purview in accordance with Marine Pollution Control Act.
- (III) Assist in maintaining the alertness and order at the coastal control zones.
- (IV) Provide temporary shelters.
- (V) Ensure smooth traffic for transporting casualties and the deceased. Ensure proper storage and autopsy of the bodies.
- (VI) Provide support to search and rescue undertaken at the coastal area of the disaster and assist in providing land transportation.
- (VII) Activate the emergency medical care system and arrange for casualties to receive medical care.
- (VIII) Establish, impose control and prohibition measures on the

danger zone and controlled area at the coast when disaster occurs.

(IX) Data collection and reporting of information on the disaster.

(X) Government agencies of different levels shall collect information on the disaster from social media and communication software. Meanwhile, when an emergency and situation of duress occurs, they shall use the cell broadcast system to send out warning texts to increase the warning effectiveness.

XVIII. Ministry of Science and Technology

Undertake and assist the investigation, monitoring and evaluation of marine oil pollution in accordance with Contingency Plans for Major Marine Oil Pollution Emergencies.

Part V Marine Casualty Investigation, Restoration and Reconstruction

Chapter 1 Marine Casualty Investigation

Section 1 Administrative Investigations

- I. After the occurrence of a marine casualty, the authorities or agencies responsible for responding to the marine casualty shall collect disaster information and report the response measures. After the response measures are terminated, they shall also maintain detailed documentations and report them to the purpose-driven competent authority. Reports shall then be forwarded to the Maritime and Port Bureau.
- II. The maritime affairs centers of Maritime and Port Bureau shall conduct marine casualty investigations on the jurisdictional seas of Taiwan. They shall also request the shipmaster to complete the sea protest and apply for endorsement for sea protest (Maritime and Port Bureau) in accordance with The Seafarer Act, Article 66.
- III. In accordance with The Law of Ships, Article 101-1, the maritime affair centers of Maritime and Port Bureau shall conduct a marine casualty investigation on the culprit vessel(s). They shall find out the root cause and submit preventive measures to the relevant authorities for review and improvements, so as to avoid similar marine casualties in the future (Maritime and Port Bureau).
- IV. In accordance with The Law of Ships and Regulations of Maritime Enquiry, Article 101-1, the marine administrative investigation and enquiry (Maritime and Port Bureau) shall be conducted on the ship or seafarer(s) responsible for the marine casualty.
- V. Subsequent to all parties of concern receiving the maritime enquiry report, in event that new evidence which may affect the resolution of the Maritime Accident Committee, they may apply to the

Maritime and Port Bureau for renewed enquiry. The aforementioned application shall be filed within 30 days of the delivery of the maritime enquiry report.

Section 2 Safety Investigation

- I. In accordance with Transportation Occurrences Investigation Act, Article 6, the Taiwan Transportation Safety Board shall be tasked to investigate major transportation occurrences within the territory of Taiwan, high seas or beyond border involving vessels registered in Taiwan.
- II. The transportation occurrence investigation protocol of the Taiwan Transportation Safety Board can be divided into five stages:
 - (I) Receipt of reporting: Upon receipt of the reporting of a transportation occurrence, after confirmation, the investigator in-charge (IIC) on duty shall be tasked to take the lead and form an advance team to go to the site of the occurrence first. If the preliminary investigation is unable to conclude that the occurrence is an accident, after the team has collected the relevant evidence, the relevant investigation team shall convene an incident verification meeting to identify the occurrence in accordance with the Transportation Occurrences Investigation Act, as well as referring to international regulations.
 - (II) On-site investigation: After the investigation becomes an open case, depending on the severity of the incident, the IIC shall form technical subgroups of different scales to go to the site to collect evidence, so as to secure and collect the evidence that is easily disappear first.
 - (III) Factual data gathering and confirming: The factual data includes witness accounts or evidence, e.g. interviews, data of mode of transportation, damage of structure or equipment, on-site measurement data and data recorder (e.g. voyage data recorder (VDR) of vessels), etc. Different technical subgroups shall

produce their respective factual data report during the factual data gathering stage. The reports shall be compiled by the IIL as the investigation report. This report shall be verified by all participating units before it is made public.

(IV) Potential causes and risk analysis: After verifying the investigation reports, members of the investigation task force shall identify the causes of the incident, perform risk analysis and complete the draft of the investigation report. Where necessary, the IIC shall invite the participating units and convene a meeting to discuss the conclusion of the analysis. The IIC shall listen to the opinion of different parties and make amendments where applicable.

(V) Review of the draft of the investigation report: After the committee approves the draft of the investigation report, various agencies (affiliated institutions) shall be given a 30 to 60-day period to review the report. They may offer their opinion for amendments. The amended draft shall be reviewed and approved by the committee before it is forwarded again to the relevant agencies (affiliated institutions). After receiving the new amended draft, the relevant agencies (affiliated institutions) may submit a written application within 15 days to the committee to offer their opinion. The committee shall review and determine if it accepts the opinion before forwarding it to the IIC to make further amendments and issue the final investigation report externally.

Chapter 2 Post-Disaster Restoration, Reconstruction and Measures Implemented by Individual Authorities

Section 1 Post-disaster Restoration and Reconstruction

The Ministry of Transportation and Communications, Ministry of Economic Affairs, Council of Agriculture, Ocean Affairs Council, Ocean Conservation Administration and local governments shall, as per the relevant regulations, order or request that the shipowner whose vessel

caused the accident remove and clear stranded vessels, floating debris on the sea, and other objects and pollutants that affect navigation in accordance with relevant regulations to restore the navigation environment.

Section 2 Measures to Handle the Deceased

- I. The Ministry of the Interior, local governments, shipping lines, and fishery and offshore wind farm operators shall arrange for freezers, body bags, and other items to cater to response for large-scale marine casualties. They shall also properly process the victim's belongings, arrange for and assist in transporting bodies, and maintain sanitation. Where they cannot respond, they may request the Central Emergency Operation Center to seek assistance from other relevant authorities.
- II. The Ministry of Justice and local governments shall promptly coordinate with local prosecuting agencies to complete the autopsies of victims as early as possible.
- III. The Ministry of Transportation and Communications, Maritime and Port Bureau, Council of Agriculture, Fisheries Agency, National Immigration Agency or Central Emergency Operation Center shall provide the names, nationalities and other information of the foreign victims to the Ministry of Foreign Affairs, and similar information of victims from Mainland China, Hong Kong and Macau to Mainland Affairs Council, to facilitate the visa application and provide assistance for consulate affairs and related immigration matters to the victim families abroad.
- IV. Local prosecuting agencies shall provide the autopsy report in both Chinese and English versions and explain its use for the reference of the victim families.
- V. The Ministry of the Interior shall oversee local governments in processing the placement of victims' bodies and allocation of

freezers. It shall also coordinate with local governments to assist in funerary arrangements for the victims.

- VI. The Ministry of Justice shall oversee local prosecuting agencies to complete the autopsies of victims and verify their identities as early as possible.

Section 3 Establishment of Counseling Service

- I. The Ministry of Transportation and Communications, Maritime and Port Bureau, Council of Agriculture and Fisheries Agency shall coordinate with the Ministry of Health and Welfare, local governments, shipping lines and fishery operators in providing survivors, victim families, witnesses, rescuers, and investigators with a counseling hotline. For the hearing impaired, the proper avenues shall be provided.
- II. The Ministry of Transportation and Communications, Maritime and Port Bureau, Fisheries Agency, Council of Agriculture shall make a request to the Ministry of Health and Welfare to coordinate with local governments, shipping lines and fishery operators and provide counseling service to survivors and victim families. Meanwhile, they shall also take into consideration the subsequent care of the victim's families. Where necessary, the relevant welfare and social relief services shall be directed to them.

Section 4 Measures Implemented by Individual Authorities

- I. Ministry of Transportation and Communications
 - (I) Undertake the marine casualty investigation and enquiry.
 - (II) Oversee various harbors in post-disaster restoration and reconstruction under its purview.
 - (III) Oversee various harbors under its purview to install aids to navigation and remove flotsam and floating debris that may hinder navigation at commercial harbor areas.
 - (IV) The Naval Meteorologic and Oceanographic Office is requested

to issue a notice to mariners. Via coast stations and fisheries radio broadcasting stations, it shall inform vessels passing by to take precautions on navigation safety.

- (V) Convene and coordinate the reimbursement claims for expenses incurred on pollution response measures undertaken by the Central Emergency Operation Center for marine casualty.

II. Ministry of National Defense

- (I) Oversee the management of harbors (naval bases) in post-disaster restoration and reconstruction.
- (II) Undertake reporting of disaster by national arm and post-disaster restoration and reconstruction in accordance with the relevant operating regulations.

III. Ministry of the Interior

- (I) Assist in the search of missing person(s) at the coastal area.
- (II) Assist in the application of temporary entrance permits for victims and victim families, who come to Taiwan to make arrangements.
- (III) Oversee the management of harbors (yacht harbors) under the purview in post-disaster restoration and reconstruction.
- (IV) Oversee the oil cleanup, claim filing and environmental restoration in national parks.

IV. Ministry of Foreign Affairs

- (I) Provide support in the coordination and liaison with international salvage groups.
- (II) Assist in the liaison with foreign counterparts or entities, as well as foreigners coming to Taiwan to make arrangements.
- (III) Undertake liaison with foreign counterparts or entities. Assist in filing international claims.

V. Ministry of Justice

Oversee prosecuting agencies to complete the autopsies of

victims who pass away due to marine casualties and verify their identities as early as possible.

VI. Ministry of Economic Affairs

- (I) Oversee management of harbors (industrial harbors) under its purview and offshore wind farm operators implementing post-disaster restoration and reconstruction.
- (II) Oversee the agencies (affiliated institutions) of industrial harbors under its purview and offshore wind farm operators in consolidating the disaster information pertaining to industrial harbors or offshore wind farms and undertaking the restoration work in accordance with the relevant regulations governing the operation of disaster management.
- (III) Undertake the wreckage cleanup at industrial harbors to ensure normal navigation at the waterways.

VII. Coast Guard Administration, Ocean Affairs Council

- (I) Undertake the search of missing person(s) on sea surface.
- (II) Assist in the provision and reporting of information on floating debris that may hinder navigation to and for the action of the Ministry of Transportation and Communications, municipal and county (city) governments, shore-side (harbor) management agencies.
- (III) Assist in filing claims pertaining to marine pollutions.

VIII. Ocean Conservation Administration, Ocean Affairs Council

- (I) Oversee the cleanup of polluted coastal areas.
- (II) Assist in filing claims pertaining to marine pollutions.

IX. Environmental Protection Administration, Executive Yuan

Oversee the waste treatment agencies.

X. Council of Agriculture, Executive Yuan

- (I) Oversee the fishing harbor authorities (interim management) to execute the post-disaster restoration and reconstruction at the

fishing harbor.

- (II) Oversee the maintenance of public facilities at fisheries units at environmentally sensitive areas under its purview and assist fishery operators in filing claims.
- (III) Oversee shipowner in expediting the removal of fishing vessel wreckage in accordance with existing administrative management protocols.

XI. Mainland Affairs Council

Assist in liaising with the agencies from Mainland China, Hong Kong and Macau to assist casualties from the said areas and arrange for their families to come to Taiwan.

XII. Municipal and county (city) governments

- (I) Oversee the management of harbors (fishing, commercial and yacht harbors) and shore-side management under the purview in post-disaster restoration and reconstruction.
- (II) Assist in providing shelter to victims and care for the casualties and victim families.
- (III) Assist in the removal of wreckage at waterways to ensure proper navigation.

XIII. Financial Supervisory Commission

Oversee insurance companies in settlement of insurance claims over oil pollution.

XIV. Taiwan Transportation Safety Board

- (I) Undertake the reporting, investigation, identification and analysis of causes, and preparing investigation reports for major transportation occurrences and make recommendations on how to improve transportation safety.
- (II) Undertake the trend analysis of transportation occurrences, follow-up on recommendations on how to improve on transportation safety and research study on transportation safety.

- (III) Undertake research development, establishment of capacity, translate data stored in VDR and engineering analysis of investigation technologies for transportation occurrences.
- (IV) Enactment, amendment and repeal of the Transportation Occurrences Investigation Act
- (V) Undertake the coordination and liaison with domestic and foreign investigation units on transportation occurrence and transportation safety units.
- (VI) Undertake other matters on the investigation of major transportation occurrences.

Part VI Implementation, Supervision and Evaluation of the Plan

Section 1 Implementation of the Plan

- I. After the amendments to the Plan is promulgated for implementation, the Ministry of Transportation and Communications shall request the Maritime and Port Bureau to formulate the SOP on Marine Casualty Response, the Council of Agriculture to formulate the Operating Procedures for Marine Casualty Emergency Notification and Response Involving Fishing Vessels, and various port management agencies (affiliated institutions) to formulate relevant plans on marine casualty prevention and protection at harbor areas and operating procedures for emergency response measures. It shall also make a request to local governments to formulate a regional plan for disaster prevention and protection, as well as to make a request to the Ministry of Economic Affairs in compelling offshore wind farm operators to adopt the Plan in their plan for disaster prevention and protection, which shall serve as the basis for executing marine salvage measures.
- II. To effectively coordinate in executing marine casualty prevention and protection measures, various authorities and agencies shall designate the relevant personnel to undertake disaster prevention and protection tasks.
- III. All relevant authorities shall coordinate to establish the SOP on marine casualty prevention and protection, standardize the disaster reporting form and other mechanisms, as well as strengthen the coordination and liaison to undertake the following:
 - (I) According to marine casualty prevention, emergency response, marine casualty investigation, restoration and reconstruction and projects in other stages, all relevant authorities shall actively execute the measures stipulated by the current and future (within the next two years) planning and schedule based on their respective responsibilities and authority.

- (II) To support local governments in strengthening the regional plan for disaster prevention and protection, the competent authorities listed by the Plan shall actively provide information and guidance to promote disaster prevention and protection planning.

Section 2 Supervision and Evaluation of the Plan

- I. For the key assignments stipulated by the Plan, various organizing (and co-organizing) authorities shall actively strengthen the promotion and implementation. They shall also individually formulate the evaluation indicators and conduct reviews regularly.
- II. For the execution and results of the key assignment stipulated by the Plan, various competent authorities and local governments shall individually conduct reviews and determine the supervision to be done.
- III. The results of assignments pertaining to marine casualty prevention and protection undertaken by various competent authorities shall become the main reference for their performance evaluation. The undertaking authorities and supervisors shall be rewarded or punished according to their performance.

Section 3 Funding

The funding required by the assignments stipulated by the Plan shall be compensated by the budget of various organizing and co-organizing authorities.

Appendixes

Appendix 1. Execution of Search, Rescue, and Aid for Marine Casualties

- I. The scope of marine casualty search and rescue in Taiwan includes the Taipei Flight Information Region east of the median line of the Taiwan Strait, Kinmen, Dongding, Wuqiu, Matsu, Dongyin, Liang Island, Dongsha, and Nansha. In regions and sea areas outside the scope of search and rescue for marine casualties beyond the reach of aircrafts and vessels of the Republic of China, the National Rescue Command Center, Ocean Affairs Council, Coast Guard Administration, Fisheries Agency, Ministry of Foreign Affairs, Ministry of Transportation and Communications, and related authorities shall jointly coordinate and liaise with foreign search and rescue organizations for assistance and support.
- II. Principles of marine casualty search and rescue
 - (I) The government of the Republic of China is responsible for search and rescue at seas near Taiwan.
 1. Search: Once local police, fire departments, or coast guard receive reports, they shall immediately mobilize rescue forces. Where local coast guard units do not have sufficient capacity for rescue operations, they shall request support from their superior authorities. When conducting search and rescue operations, various units must consolidate manpower and resources to search for victims in distress on the water. Where it is necessary to extend the period of search operations, it shall be extended pursuant to the search and rescue order.
 2. Emergency relief: The unit conducting the search and rescue operation shall provide preliminary emergency aid and necessary assistance to victims they rescued and transport them to safe locations.
 - (II) Due to the inherent dangers of search and rescue operations, the safety of search and rescue crew shall be prioritized in their missions. Based on

its own manpower and equipment, each search and rescue unit shall establish restrictions and decision-making procedures on executing the search under severe weather conditions and special conditions.

(III) One of the key prerequisites for executing search and rescue operations is the presence of survivors at the site of the incident. If it is deemed impossible to have survivors at a disaster-struck site, the situation does not constitute a condition for performing search and rescue operations. Similarly, no search and rescue operation shall be conducted for rescuing damaged vessel equipment and property.

(IV) Search and rescue operations shall not interfere with commercial behaviors. For instance, when local wealthy towing operators can execute towing operations, government vessels shall not conduct such operations. Alternatively, once commercial towing operation can be safely conducted, the operation shall be transferred to a commercial towing vessel.

(V) Any operation that involves towing or assisting vessels in distress to leave the waterways or other water areas shall not be included in the search and rescue operation. “Salvage of property” shall only be conducted when vessels, aircrafts, and cargo are still considered valuable. In addition, “assistance” is also based on the principle that the vessel is still usable. Business opportunities usually exist in property salvage operations and such actions are taken based on the inherent value of the vessel itself or the cargo. In property salvage operations, the remuneration (the bonus, remuneration, and compensation for any property salvage operations) may be determined by prior agreement or post-hoc arbitration. In addition, after a property salvage operation, the shipowner and insurance companies shall also retain rights and interests of recovered items.

III. Suspension and extension of search and rescue operations:

(I) Once the location of the wreckage is determined and the last victim is found or rescued or when the possibility of survival has faded.

(II) The start of the search and rescue period shall be calculated from the time when the incident takes place. (Where the actual time of the incident cannot be determined, it shall be calculated as the time of the first report)

(III) Extension of operations: Under special conditions where it is necessary to extend the search and rescue operation, the operations may be continued under the order of the incident commander.

IV. Shared channel (frequency) used by the incident commander and response teams

For marine casualties that have occurred in harbor areas (including commercial, fishing, industrial and yacht harbors, lakes, pools, and rivers), the incident command shall be directed by the chief (person in charge) of the operation and management authority (agency) or the chief's designated personnel. For fishing harbors or piers without management units, disaster response shall be directed by the local fire brigade. Coast guard units shall be tasked with offshore marine rescue operations for areas outside harbors. The Maritime and Port Bureau shall be tasked with coordinating the operation command within and without the harbor areas. After the Central Emergency Operation Center for marine casualty is established, it shall take over the command and designate the suitable personnel to take charge of incident command, coordinate and integrate units in disaster relief based on actual circumstances.

Rescue units shall, based on the location of marine casualties, contact port management agencies (affiliated institutions) for disasters occurring within harbor areas or contact the Duty Command Center of Coast Guard Administration or Maritime and Port Bureau for disaster occurring on seas outside harbor areas, so as to learn the location of the Incident Command Place and the title and name of the incident commander. They shall immediately report to the incident commander after arriving at the search and rescue site. To help the field commander in unifying command, coordinating and consolidating resources of rescue units, and issuing commands for operations, the shared communication channel (frequency) of all search and rescue units (including the vessel or aircraft in distress) shall be tentatively set at 156.8 MHz (VHF

CH16). However, if the vessel in distress is a fishing vessel, SSB 2182 KHz or DSB 27.065 MHz shall be tentatively used as the shared channel. Where the search and rescue operation has exceeded 24 hours and has been determined to go on, if the disaster location is within harbor areas, the port (naval bases, commercial, fishing, yacht, and industrial harbors) management authority (agency) shall select an on-site common disaster relief channel (frequency) for on-site disaster relief operations. If the disaster location is outside harbor areas, the authorities shall refer to Article N38 of the international Radio Regulation which stipulates that 156.3 MHz (VHF CH06) may be tentatively used as the common communication channel (frequency) to facilitate the coordination and communication for the search and rescue operations between vessels and aircrafts. However, if the vessel in distress is a fishing vessel, SSB 3023 KHz shall be tentatively used as the common channel and the regular operation channel (frequency) shall be restored after the end of search and rescue operations. (The telephone and fax numbers of the Duty Command Center of the Coast Guard Administration and communication centers of port management agencies (affiliated institutions) are provided in Table 3).

V. Principles for handling vessels in distress

Where the disposal of a vessel after a marine casualty involves the disposal of people's property rights and may cause civil disputes and compensation liabilities, the disposal of a vessel shall be processed by the interested parties and the competent authority in accordance with related laws. Where the vessel is not located within the marine casualty disaster relief territory, the search and rescue units may refuse to salvage or tow such vessels.

- (I) Companies (agents) owning the commercial vessels and private vessels in distress shall appoint a private or marine rescue organization to perform the tow. Where the private operator does not have the capacity to do so, it may apply for assistance from the on-site naval towing fleet, Fleet Branch of the Coast Guard Administration or the local port management authorities (agencies) to perform the tow after discussions.
- (II) In principle, the towing of fishing vessels in distress shall be performed

through mutual assistance between fishing vessels. In other words, fishing vessels may use various fisheries radio broadcasting stations or Keelung Radio to broadcast requests to vessels nearby or fishing vessels in operations to assist with the tow.

- (III) In the event of poor sea conditions (e.g., typhoons), vessels may apply for entry to a nearby harbor or drop anchor to avoid the typhoon until the sea conditions are suitable for navigation or to continue the voyage after repairs. The port management agencies (affiliated institutions) shall designate safe areas (sites) within the harbor area for berthing and repairs. It shall also take the necessary emergency response measures to ensure the safety of waterways and other vessels within the harbor.

VI. Procedures for handling civil aircraft crashing into the sea

- (I) For aviation accidents and incidents involving civil aircraft, the Operation Plan for Aviation Disaster Prevention and Protection shall be adopted.
- (II) The offshore disaster relief operations initiated based on the reporting mechanisms of the Plan shall apply mutatis mutandis to search and rescue operations of aircraft that have crashed into the sea.
- (III) Procedures for Notification of Disaster and Emergency of Civil Aeronautics Administration (as per Figure 2)

Appendix 2. For the principles of guidance for the regional plan for marine casualty prevention and protection.

I. Objectives

The principles of guidance are established to provide guidance to municipal and county (city) governments in the formulation of their regional plan for disaster prevention and protection, so as to help improve the marine casualty prevention system, enhance marine casualty prevention and rescue functions, safeguard lives, ensure navigation safety, and protect properties.

II. Matters stipulated by the regional plan for marine casualty prevention and protection

“Marine casualty” refers to malfunction, foundering, grounding, collision, fire, explosion, or other extraordinary incidents involving ships, seafarers, or passengers. The Ministry of Transportation and Communication has formulated the Operation Plan for Marine Casualty Prevention and Protection, in which the local governments shall coordinate in executing the following:

(I) Disaster prevention

1. Formulate the regional marine casualty prevention and protection policies and operating plans.
2. Establish the collaborating mechanism and protocols for marine casualty emergency response.
3. Strengthen the education, training and exercise on disaster preventive response for the relevant personnel and the public.
4. Assist in educating the public in establishing awareness for marine casualty prevention and protection.
5. Oversee the planning and preparation of other collaborations in marine salvage.
6. Conduct inspection on danger zone, set up the perimeter of controlled area and impose restrictions and prohibitions on controlled area when disaster occurs.
7. To enable persons with disabilities to receive the necessary disaster prevention and protection information, the information shall be

enhanced to be easy-read and usable. The content and format prepared shall meet the requirement of high comprehensibility, and the information shall be made public on certified accessible websites.

(II) Disaster emergency response

1. Undertake pollution cleanup at the coastal area and waste treatment.
2. Assist in maintaining alertness and order at the coastal control zones.
3. Provide temporary shelters.
4. Ensure smooth traffic for transporting casualties and the deceased.
Ensure proper storage and autopsy of the bodies.
5. Provide support to search and rescue undertaken at the coastal area of the disaster and assist in providing land transportation.
6. Activate the local emergency medical network and provide emergency medical care.
7. Establish, impose control and prohibition measures on the danger zone and controlled area at the coast when disaster occurs.
8. Data collection and reporting of information on the disaster.

(III) Post-disaster restoration and reconstruction

1. Assist in the restoration and other work in polluted coastal areas.
2. Undertake the disbursement of solatium and relief payments to injured victims and victim families.
3. Assist in the removal of floating debris at rivers and waterways to ensure proper navigation.

III. Regulations governing the reporting of marine casualty emergency

(I) Objectives

In the event of a marine casualty or imminent marine casualty, reporting shall be made swiftly to facilitate prompt verification and immediate search and rescue operations, so that all necessary response measures can be undertaken to reduce damage.

(II) Scope of search and rescue operations

The marine casualties stipulated by these regulations governing the reporting shall refer to the malfunction, foundering, grounding, collision, fire,

explosion, or other extraordinary incidents involving ships, cargo, seafarers and passengers. Floating crafts, fixed or floating platform, airplanes or aircrafts crashing into the sea, marine salvage, and vessels' stipulation allowed for marine salvage.

(III) Reporting procedures:

1. For the Marine Casualty Incident Emergency Reporting System, please see Figure 1; for Marine Casualty Disaster Report, please see Table 1.
2. After the municipal and county (city) governments receive reports and information on vessels in distress, they shall promptly inform the Duty Command Center of Coast Guard Administration (or Hotline 118, i.e. service hotline of Coast Guard Administration) and various agencies. For marine casualties caused by offshore wind farms, they shall inform the Bureau of Energy. They shall undertake the necessary emergency response measures according to their responsibilities and authority, the magnitude of disaster and reporting hierarchy, as per Table 2 of the Plan.
3. If the Ministry of Transportation and Communications, Maritime and Port Bureau, Bureau of Energy, various port branch offices or Ocean Affairs Council, Coast Guard Administration deem coordination from municipal and county (city) governments necessary, they shall promptly liaise with the local governments.
4. Various units shall establish the emergency contact list for working and non-working hours. For any change to the list, the relevant units shall be promptly notified.

IV. Funding and performance evaluation:

- (I) The municipal and county (city) governments establishing the regional plan for disaster prevention and protection shall take into consideration the characteristics of marine casualties in formulating local projects on marine casualty prevention and protection, their objectives and schedule over different stages within the next two years.
- (II) Units under the purview of local governments shall establish the execution plan and budget for the projects on marine casualty prevention and

protection over different stages within the next two years.

- (III) The local governments shall establish the regional plan for disaster prevention and protection. They shall also oversee the execution and performance evaluation of units under their purview.

Appendix 3. Regulations governing the reporting of marine casualty emergency

- I. Basis: Undertake in accordance with Regulations Governing Notification of Disaster and Emergency amended and issued by Executive Yuan on May 29, 2020.
- II. Objectives: In the event of a marine casualty or imminent marine casualty, reporting shall be made swiftly to facilitate prompt verification and immediate search and rescue operations, so that all necessary response measures can be undertaken to reduce damage.
- III. Scope of search and rescue: Undertake marine salvage for vessels damaged or destroyed due to foundering, grounding, collision, fire, explosion, or other extraordinary incidents, and perform an emergency rescue on seafarers and passengers in distress.
- IV. Reporting and liaison operation: Marine Casualty Incident Emergency Reporting System (Figure 1)
 - (I) Reporting and liaison between relevant units:
 1. Upon receiving alerts or information on the vessel in distress, and after verifying the vessel identity, position, and situation, the relevant first response units (vessels, TAMCC, coast stations, port communication centers, fisheries radio broadcasting stations and shipping lines) shall promptly report to the Duty Command Center of Coast Guard Administration (or Hotline 118, i.e. service hotline of Coast Guard Administration) and the relevant authorities. The authorities shall take necessary response and disaster relief measures in accordance with their responsibilities and authority.
 2. Upon report to the Coast Guard Administration and the relevant authorities, the first response units (vessels, TAMCC, coast stations, port communication centers, fisheries radio broadcasting stations and shipping lines) shall also issue multiple notifications to their direct superior agencies (affiliated institutions). Their direct superior agencies (affiliated institutions) shall conduct disaster response

operations and horizontal communication based on their responsibilities and authority, so as to monitor the conditions.

3. Apart from first response units using the telephone to make emergency reports, if there is sufficient time, other agencies (affiliated institutions) shall formally submit the Marine Casualty Disaster Report (Table 1) for liaison.
4. Upon receiving reports from civilians pertaining to marine casualties, the fire departments (hotline 119) of the municipal and county (city) governments shall inform the unit overseeing Hotline 118 of the Coast Guard Administration for further coordination.

(II) For the magnitude and reporting hierarchy of marine casualties, please see the Marine Casualty Disaster Magnitude and Reporting Level table. (Table 2)

1. Marine casualties of Class A magnitude:

- (1) Basis of assessment:
 - (a) The occurrence or imminent occurrence of a serious marine casualty involving vessel(s) on the seas of Taiwan with severe vessel damage and casualties or missing person(s) totaling ten (inclusive) persons or more.
 - (b) A leak or imminent leak of residual fuel oil of more than 700 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.
 - (c) A disaster that shows signs of expansion in magnitude and has a foreseeable material impact on society.
 - (d) A disaster with media, political, or social impact, or a disaster that the (Deputy) Minister of Economic Affairs deems necessary to disclose (e.g., death or missing person(s) caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted

according to the development of the disaster.

(2) Reporting hierarchy: Report to Executive Yuan.

2. Class B magnitude of marine casualties:

(1) Basis of assessment:

- (a) The occurrence or imminent occurrence of a marine casualty involving vessel(s) on the seas of Taiwan with casualties or missing person(s) totaling four (inclusive) persons or more, and less than ten persons.
- (b) A leak or imminent leak of residual fuel oil between 100 metric tonnes and 700 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.
- (c) A major accident involving a vessel or an accident with media impact (e.g., death or missing person(s) caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted according to the development of the disaster.

(2) Reporting hierarchy: Report to National Fire Agency, Coast Guard Administration, Fisheries Agency (for fishing vessels) and Ministry of Transportation and Communications. For marine casualties involving offshore wind power generation, the Ministry of Economic Affairs shall be notified. After receiving reports, the aforementioned authorities and agencies shall promptly verify the content of the reports, magnitude of the disaster and accuracy in observing the reporting hierarchy. The authorities and agencies shall undertake the response and rescue measures, as well as the post-disaster restoration, according to their responsibilities and authority. After receiving reports of a marine casualty of Class B magnitude, if it escalates to a Class A magnitude, the aforementioned authorities shall report

to the Executive Yuan regarding the latest update on the marine casualty and response measures.

3. Class C magnitude of marine casualties:

- (1) Basis of assessment: (a) The occurrence or imminent occurrence of a marine casualty on the seas of Taiwan with no immediate casualties or danger to personnel.
- (b) A leak or imminent leak of residual fuel oil below 100 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.
- (c) The occurrence of a marine casualty involving vessel(s) where death or missing person(s) totaling less than three persons. Meanwhile, countermeasures shall be adjusted according to the development of the disaster.

- (2) Reporting hierarchy: Report to the fire departments of the municipal and county (city) governments, regional coast guard, port management authorities and other agencies overseeing disaster response. For marine casualties involving offshore wind power generation, the Ministry of Economic Affairs and Bureau of Energy shall be notified. After receiving reports on marine casualties occurring in areas under the purview, the aforementioned authorities and agencies shall promptly verify the information and undertake the necessary response measures to determine the type, magnitude and reporting hierarchy. For example, if the marine casualty escalates to Class B magnitude, they shall inform the relevant level two authorities and agencies regarding the latest update on the marine casualty and response measures by telephone or fax.

(III) Various units shall establish the emergency contact list for 24-hour working

and non-working hours. For any change to the list, the relevant units shall be promptly notified.

Appendix 4 Maritime Disaster Response Capacity (Northern Region)

Area	Company Name	Telephone Number	Address	Remarks
Northern Region	Port of Keelung, Taiwan International Ports Corporation, Ltd.	Control room (harbor boats) - 02-24206318 Chia-Lun, Yeh - 02-24206300	No. 18, Gangxi Street, Keelung City	1. Keelung 735, clearance vessel, 19.98 gross tonnage (GT), 450 horsepower (hp) (Port of Taipei), harbor area 2. Keelung 743, surveying ship, 12.08 GT, 261 hp, harbor area 3. Keelung 731, clearance vessel, 16.87 GT, 300 hp, harbor area 4. Keelung 733, clearance vessel, 19.66 GT, 440 hp, harbor area 5. Keelung 737, clearance vessel, 8.2 GT, 340 hp, harbor area 6. Keelung 315, floating crane, 2016 GT, 1700 hp (Port of Kaohsiung) 7. Keelung 620, mooring ship, 15.73 GT, 385 hp, harbor area 8. 2 street washer trucks 9. 1 street sweeper truck 10. 20 oil absorbent rolls 11. 53 boxes of oil absorbent pads
	Keelung Port Branch Office, TIPM Marine Corporation, Ltd.	02-24206323 02-24206324 Keelung Port Branch Office 02-24206256 02-24206260 Monitoring	No. 8, Zhongshan 3rd Road, Heping Village, Zhongshan District, Keelung City	1. TIPM 12601, harbor tugboat, 342 GT, 2600 hp, coastal area 2. TIPM 12701, harbor tugboat, 331 GT, 2760 hp, coastal area 3. TIPM 12702, harbor tugboat, 331 GT, 2760 hp, coastal area 4. TIPM 13302, harbor tugboat, 336 GT, 3326 hp, coastal area

Area	Company Name	Telephone Number	Address	Remarks
		Center		5. TIPM 13303, harbor tugboat, 336 GT, 3326 hp, coastal area 6. TIPM 14301, harbor tugboat, 415 GT, 4345 hp, coastal area 7. TIPM 14302, harbor tugboat, 415 GT, 4345 hp, coastal area 8. TIPM 15002, harbor tugboat, 499 GT, 5000 hp, coastal area (currently docking at Port of Kaohsiung)
	Taipei Port Branch Office of Keelung Port, Taiwan International Ports Corporation, Ltd.,	02-26196006 Mr. Tseng	No. 123, Shanggang Road, Bali District, New Taipei City	1. 6 boxes of oil absorbent pads (100 pads per box) 2. 1 set of boom reel including oil boom of 300 meters 3. 1 high pressure washer (10.7 hp) 4. 1 set of skimmer and pump 5. Keelung 735, clearance vessel, 20 GT, 420 hp, contracted vendor provides supplies of oil absorbent pads and anti-pollution devices.
	Suao Port Branch Office of Keelung Port, Taiwan International Ports Corporation, Ltd.	(03)9965121 ext. 257 Mr. Lin	No. 1, Port District, Sudong Village, Su'ao Township, Yilan County	1. 10 oil absorbent rolls (38 in. x 142 in.) 2. 65 boxes of oil absorbent pads (200 pads per box, 30 cm x 30 cm per pad) 3. 1 weir skimmer 4. 18 oil booms for harbor 5. 1 oil bag 6. 2 hand driven oil presses 7. 1 container architecture 8. 3 wireless transceivers 9. 3 boom reels

Area	Company Name	Telephone Number	Address	Remarks
	Suao Port Branch Office, TIPC Marine Corporation, Ltd.,	039-965121 ext. 342 Mr. Liu	4F, No. 1, Port District, Sudong Village, Su'ao Township, Yilan County	<ol style="list-style-type: none"> 1. TIPM 12501, harbor tugboat, 278 GT, 2530 hp, coastal area 2. TIPM 13202, harbor tugboat, 332 GT, 3200 hp, coastal area 3. TIPM 13301, harbor tugboat, 336 GT, 3372 hp, coastal area 4. TIPM 11701, harbor tugboat, 240 GT, 1700 hp, coastal area 5. TIPM 12603, harbor tugboat, 354 GT, 2600 hp, coastal area
	Hai Yang Marine Affairs Engineering Co., Ltd.	02-24283056	No. 34, Wenhua Road, Keelung City	4 divers
	Asia Pacific Harbor Engineering Co., Ltd.	02-24377099	2F, No. 467, Sec. 6, Zhongxiao East Road, Nangang District, Taipei City	<ol style="list-style-type: none"> 1. Yuan Hsiang, pontoon boat, 224 GT, unpowered, coastal area 2. 15 divers 3. Avatar Triumph, tugboat, 3511 GT, 12000 hp, offshore 4. Avatar Courage, tugboat, 1709 GT, 5400 hp, offshore
	Taiwan Power Company Hsieh-ho Power Plant	02-24248111#322 Ms. Huang	No. 80, Wenhua Road, Keelung City	<ol style="list-style-type: none"> 1. 200 pieces of oil absorbent pads 2. 5 packets of oil absorbent rolls (38 in. x 145 in.) 3. 22 packets of oil absorbent booms (4 booms per packet, 8 in. x 10 in. per boom) 4. 13 oil booms (for harbors, 0.5 m x 20 m) 5. 1 weir skimmer (20 metric tons/hour) 6. 1 screw pump (3 metric tons per

Area	Company Name	Telephone Number	Address	Remarks
				hour) 7. 32 tanks (temporary storage, 200 liter each) 8. 11 barrels of oil dispersant (19 liter each)
	J & L Machine Engineering Inc.	02-24246363 02-24281231	1F, No. 173, Zhongshan 3rd Road, Keelung City	J & L No.1, tugboat, 160.38 GT, 1200 hp, harbor area
	Hsin Hai Marine Engineering Co., Ltd.	02-24691800	No. 362, Beining Rd., Zhongzheng Dist., Keelung City	1. Hsin Hai No. 2, tugboat, 86.62 GT, 1281 hp, coastal area 2. San Ching No. 6, workboat, 97 GT, 1000 hp, coastal area 3. Ming Hai No. 1, work tender, 16.32 GT, 560 hp, coastal area 4. 3 oil booms (50 m) 5. 20 boxes of oil absorbent pads 6. 8 sets of water pumps (15 hp) 7. 3 sets of screw pumps 8. 6 divers
	Kuo Jye Engineering Co., Ltd.	02-24692437 0928-272463 Mr. Tang	No. 362-1, Beining Rd., Zhongzheng Dist., Keelung City	Kuo Jye No.1, workboat, 157 GT, 1000 hp, harbor area
	Kueen Yang Enterprise Co., Ltd	02-26195536 Tzu-Ming, Li, Chairman 0937-826536	3F, No. 123, Chun Building, Shanggang Road, Bali District, New Taipei City	1. Yu Shan No. 289, tugboat, 331 GT, 2800 hp, coastal area 2. Yu Yuan No. 101, tugboat, 303 GT, 3600 hp, coastal area 3. Yu Hong, tugboat, 337 GT, 4400 hp, coastal area 4. Yu Da No. 568, tugboat, 499 GT,

Area	Company Name	Telephone Number	Address	Remarks
				5000 hp, coastal area 5. Kueen Yang No. 601, tugboat, 446 GT, 6000 hp, coastal area
	Smit Kueen Yang Harbour Services Co., Ltd.	02-86302200 02-86301563 0918-964252 Mr. Cheng, General Manager 0933-952252 Mr. Ko, Manager	3F, No. 123, Shanggang Road, Bali District, New Taipei City	1. Sky 111, tugboat, 229 GT, 1600 hp, harbor area 2. Sky 211, tugboat, 331 GT, 2800 hp, coastal area 3. Sky 312, tugboat, 246 GT, 3200 hp, coastal area 4. Sky 401, tugboat, 398 GT, 4000 hp, coastal area 5. Sky 501, tugboat, 369 GT, 5500 hp, coastal area 6. Yu Yuan No. 101, tugboat, 303 GT, 3600 hp, coastal area 7. Yu Hong, tugboat, 337 GT, 4392 hp, coastal area 8. EC668, tugboat, 361 GT, 6000 hp, coastal area
	Chau-Hsen Enterprise Co., Ltd.	02-26051245#21 0935-977635 Mr. Chen	No. 42, Baodoucukeng, Jiabao Village, Linkou District, New Taipei City	1. Chau-Hsen No. 10, tugboat, 70.74 GT, 591 hp, coastal area 2. Chau-Hsen No. 12, tugboat, 175 GT, 1500 hp, coastal area 3. Chau-Hsen No. 1, pontoon boat, 742 GT, unpowered, coastal area 4. Chau-Hsen No. 3, pontoon boat, 549 GT, unpowered, coastal area 5. Chau-Hsen No. 7, pontoon boat, 407 GT, unpowered, coastal area 6. Chau-Hsen No. 9, pontoon boat, 492 GT, unpowered, coastal area 7. Chau-Hsen No. 16, workboat,

Area	Company Name	Telephone Number	Address	Remarks
				10.38 GT, 310 hp, coastal area 8. Chau-Hsen No. 20, workboat, 9.44 GT, 225 hp, coastal area 9. Chau-Hsen No. 5, floating crane, 434 GT, unpowered 10. Chau-Hsen No. 22, tugboat, 201 GT, 1600 hp, coastal area 11. Chau-Hsen No. 23, pontoon boat, 3314 GT, unpowered, coastal area 12. Chau-Hsen No. 330, pontoon boat, 6638 GT, unpowered, coastal area 13. Northeast No. 3, pontoon boat, 19.97 GT, 1050 hp, coastal area 14. Northeast No. 3, workboat, 19.97 GT, 1050 hp, coastal area 15. Chau-Hsen No. 26, tugboat, 298 GT, 3200 hp, coastal area 16. Chau-Hsen No. 28, tugboat, 495 GT, 5000 hp, coastal area 17. Chau-Hsen No. 111, tugboat, 201 GT, 1700 hp, coastal area 18. Chau-Hsen No. 813, tugboat, 26.38 GT, 540 hp, coastal area 19. Chau-Hsen No. 817, tugboat, 26.38 GT, 540 hp, coastal area 20. Chau-Hsen No. 818, tugboat, 26.38 GT, 540 hp, coastal area 21. Chau-Hsen No. 819, tugboat, 24.38 GT, 540 hp, coastal area 22. Chau-Hsen No. 8110, tugboat, 24.38 GT, 540 hp, coastal area 23. 5 divers
	Da Chuan Chi Marine Engineering Co., Ltd.	04-26563163	No. 25, Lane. 906, Sec. 4, Lingang Road, Wuqi District, Taichung City	1. DACC No. 1, dredger barge, 498 GT, unpowered, coastal area (stationed in Port of Taichung) 2. DACC No. 2, barge, 138 GT, unpowered, coastal area (lay up) 3. DACC No. 7, barge, 262 GT, 900 hp, coastal area (stationed in Port

Area	Company Name	Telephone Number	Address	Remarks
				of Taichung) 4. DACC No. 9, tugboat, 19.12 GT, 739 hp, coastal area (stationed in Port of Taichung) 5. DACC No. 10, workboat, 37.89 GT, 1200 hp, coastal area
	Sea & Land Integrated Corp.	02-86926001 Ext. 376	13F, No. 99, Fuxing North Road, Songshan District, Taipei City	1. Sea & Land No. 5, tugboat, 19 GT, 550 hp, coastal area 2. Sea & Land No. 6, tugboat, 357 GT, 3200 hp, coastal area 3. Sea & Land No. 7, 19 GT, 1200 hp, coastal area 4. Sea & Land No. 3, barge, 4212 GT, unpowered, coastal area 5. Sea & Land No. 8, pontoon boat, 2575 GT, unpowered, coastal area
	CPC Corporation, Taiwan	03-3835121 ext. 4220 Section Chief: Jui-Chi, Huang (Taoyuan Refinery) 0916198460	No. 1, Lane 1365, Sec. 1, Xibin Road, Neighborhood 6, Shalun Village, Dayuan District, Taoyuan City	1. Tao Yu No. 5, tugboat, 185 GT, 1500 hp, coastal area 2. Tao Yu No. 6, workboat, 554 GT, 3400 hp, coastal area 3. Tao Yu No. 3, tugboat, 471 GT, 3600 hp, coastal area (expected to be scrapped in Oct this year) 4. Tao Yu No. 9, multi-purpose workboat, 537 GT, 600 hp, coastal area (to replace Tao Yu No. 3) 5. Chu Wei, mooring ship, 18.19GT, 400 hp, harbor area 6. Chu Wei No. 2, workboat, 18.41 GT, 650 hp, harbor area

Area	Company Name	Telephone Number	Address	Remarks
				7. 22 barrels of oil dispersant 8. Oil boom (15 meters) 9. 1 U-BOOM oil boom 10. Macro belt skimmer*1 11. Slop tank with a capacity of 84.7 metric tons 12. Permanent air boom (100 meters, for river) 13. 5 divers
		03-9969341 #202 Pen-Huang Yu (Su'ao Oil Supply Center)	No. 299, Yongchun Road, Su'ao Township, Yilan County	1. Degreaser - 9200 liters 2. 2 dispersant sprayers 3. 5 sets of self-contained breathing apparatus (SCBA) 4. 8 gas detectors 5. 1 high pressure washer 6. 4 pilot lamps 7. 10 portable radios 8. Oil boom (990 meters) 9. 16 oil absorbent rolls (1 m x 80 m per roll)
		02-24976114 ext. 201 (Shen'ao Fishing Harbor)	No. 29-7, Haibin Road, Ruifang District, New Taipei City	1. Shen Ao No.3, tugboat, 389 GT, 3760 hp, coastal area 2. Shen Ao No.5, tugboat, 389 GT, 3760 hp, coastal area 3. Shen Ao No. 6, workboat, 18 GT, 410 hp, harbor area
	Chun Yang Marine Affairs Engineering Co., Ltd.	03-3256364 0932-365262 Mr. Miao	No. 2, Lane 197, Zhongpu 6th Street, Taoyuan District, Taoyuan City	1. Chun Yang No. 6, floating crane, 512 GT, unpowered, coastal area 2. Lash Crane, floating crane, 335 GT, unpowered, coastal area
	Keelung	0932-161585	B4-6, No. 6,	1. 30 divers

Area	Company Name	Telephone Number	Address	Remarks
	Rescue Association (search and rescue in water areas)	Kuan-Nian Peng, Secretary-General	Lane 8, Leli 3rd Street, Anle District, Keelung City	2. 40 diving cylinders 3. 1 equipment transport vehicle (3.5 metric tons) 4. 3 seven-seat lifeboats 5. 3 outboard motors (30 hp) 6. 1 personal water craft
	New Taipei City Search and Rescue Association	0936-813324 General Commander Chang	No. 2, Lane 131, Anxing Road, Xindian District, New Taipei City	1. 1 diver 2. 39 lifeguards 3. 2 lifeboats
	New Taipei City Police-Civil United Association	0988-539333 Executive Secretary Chan	1F, No. 115, Hougang 1st Road, Xinzhuang District, New Taipei City	1. 35 lifeguards 2. 3 rubber boats
	New Taipei City Rescue Association	02-22819595 Secretary-general Lin	1F, No. 617, Sanmin Road, Luzhou District, New Taipei City	1. Jinshan Branch: (1)6 divers (2)2 lifeboats (1 hard bottom, 1 soft bottom) (3)1 personal water craft 2. Sanzhi Branch (1)4 divers (2)1 lifeboat (1 soft bottom) 3. Tamsui Branch 2 lifeboats (1 soft bottom) 4. Bali Branch 3 lifeboats (2 hard bottom, 1 soft bottom) 5. Underwater Search and Rescue Team:

Area	Company Name	Telephone Number	Address	Remarks
				(1)22 divers (2)1 underwater vehicle (3)4 lifeboats (4 soft bottom) 6. Sea Search and Rescue Team: 9 personal water crafts 7. Luzhou Branch: (1)1 rescue equipment vehicle (2) 3 lifeboats (1 hard bottom, 1 soft bottom)
	Yilan County Lanyang Rescue Association	039-680474 Mr. Chuang, President	No. 9-1, Sec. 5, Dongshan Rd., Dongshan Township, Yilan County	1. 2 personal water crafts 2. 4 lifeboats (2 hard bottom, 2 soft bottom) 3. 1 powered paraglider 4. 50 sets of diving equipment
	Yilan County Water Life Saving Association	0972-159350 Mr. Chien, President 0937-497275 Executive Secretary Tsou	2F, No. 170, Siwei Road, Luodong Township, Yilan County	1. 1 personal water craft 2. 3 lifeboats (1 hard bottom, 2 soft bottom) 3. 7 sets of diving equipment
	Kavalan Rescue Association, Yilan County	0913-333987 Executive Secretary Lin	No. 93, Dongxing Street, Toucheng Township, Yilan County	1. 1 personal water craft 2. 2 lifeboats (1 hard bottom, 1 soft bottom) 3. 15 sets of diving equipment 4. 15 divers
	Life Saving Association, Lienchiang County	0921-933570 Yu-Lin, Chen, Executive Secretary 0928-812974	No. 133, Qingshui Vil., Nangan Township, Lienchiang	1. 2 lifeboats 2. 4 rubber boats 3. 10 sets of diving equipment 4. 10 divers

Area	Company Name	Telephone Number	Address	Remarks
		Yu-Chiu, Weng, President	County	

(Central Region)

Area	Company Name	Telephone Number	Address	Remarks
Central Region	Port of Taichung, Taiwan International Ports Corporation	04-26642390 Harbor Management Department Monitoring Center	No. 2, Sec. 10, Taiwan Boulevard, Wuqi District, Taichung City	1. Oil boom (for harbor), 200 m 2. Oil boom (for river), 200 m 3. 1 brush skimmer 4. 60 oil absorbent rolls (48m) 5. 20 packets of oil absorbent booms (3 booms per packet, 3 m per boom) 6. 70 barrels of degreaser 7. 2 high pressure dispersant sprayers
	TIPC Marine Corporation, Ltd.	04-26580300 04-26580821 Taichung Port Branch Office	No. 2, Beiheng 12th Rd., Qingshui Dist., Taichung City (ship repair center), No. 8 (port branch office)	1. TIPM 14403, tugboat, 473 GT, 4400 hp, coastal area. 2. TIPM 14405, tugboat, 473 GT, 4400 hp, coastal area. 3. TIPM 14501, tugboat, 442 GT, 4500 hp, coastal area. 4. TIPM 15001, tugboat, 496 GT, 5000 hp, offshore. 5. TIPM 22601, crew transfer O&M vessel, 176 GT, 3300 hp, offshore. 6. TIPM 22602, crew transfer O&M vessel, 176 GT, 3300 hp, offshore. 7. TIPM 22603 8. Chung No. 605, pontoon boat, 72 GT, unpowered, harbor area 9. Chung No. 606, pontoon boat, 72 GT, unpowered, harbor area 10. Chung No. 607, pontoon boat, 72 GT, unpowered, harbor area

Area	Company Name	Telephone Number	Address	Remarks
				11. Chung No. 608, pontoon boat, 172 GT, unpowered, harbor area 12. TIPM 51601, barge, 2066 GT, 0 hp, coastal area. 13. TIPM 514001, barge, 13521 GT, 0 hp, international.
	Great China Salvage Company	04-26561747 0913-561747 (Mr. Chu) 0937-284218 (Mr. Huang)	9F, No. 6, Lane 353, Daren Road, Wuqi District, Taichung City	1. Ta Han No. 711, tugboat, 498 GT, 1600 hp, offshore. 2. Sea Diving No. 8, tugboat, 447 GT, 3600 ps, offshore. 3. AMO, tugboat, 499 GT, 2800 hp, offshore. 4. Ta Han No. 6, tugboat, 19.96 GT, 1140 ps, offshore. 5. 2 forklifts (3 tons) 6. 4 alternators 7. 4 direct current arc weldings 8. 4 oxygen and acetylene steel cylinders 9. 2 sets of self-contained breathing apparatus 10. 1 set of four-inch water pump (gasoline) 11. Oil boom (for harbor), 1000 m 12. Oil boom (for river), 1000 m 13. 30 oil absorbent rolls (48 m) 14. 30 packets of oil absorbent booms (3 booms per packet, 3 m per boom) 15. 20 barrels of degreaser (200 liter per barrel)

Area	Company Name	Telephone Number	Address	Remarks
				16. 2 high pressure dispersant sprayers 17. 4 engineers 18. 4 divers; 4 sets of diving equipment 19. 20 oil containers (1000 m) 20. 2 container architecture 21. 10 wireless transceivers 22. 2 sets of underwater photography and video equipment (50m) 23. 2 personal water crafts 24. 3 lifeboats
	Taiwan Salvage Co., Ltd.	04-26561882	1F, No. 197, Wenxing Road, Qingshui District, Taichung City	1. EC656, tugboat, 492 GT, 5000 hp, offshore 2. EC658, tugboat, 437 GT, 5000 hp, coastal area 3. EC620, tugboat, 272 GT, 2400 hp, coastal area 4. EC626, tugboat, 328 GT, 2400 hp, coastal area 5. EC615, tender, 41.65 GT, 1050 hp, coastal area 6. EC612, tender, 41.12 GT, 1200 hp, coastal area 7. EC611, tender, 41.65 GT, 1200 hp, coastal area 8. 1 forklift (3.5 tons) 9. Oil boom (above water, 20 cm/underwater 50 cm), 1000 m 10. 60 barrels of degreaser 11. 10 divers; 10 sets of diving

Area	Company Name	Telephone Number	Address	Remarks
				<p>equipment</p> <p>12. 6 high pressure washers</p> <p>13. 100 sets of protective clothing</p> <p>14. 10 hand driven suction pumps</p> <p>15. 50 oil absorbent rolls</p> <p>16. 10 wireless transceivers</p> <p>17. 1 set of acoustimeter including electronic navigational charts</p> <p>18. 1 set of underwater photography and video equipment (50 m)</p>
	Mailiao Harbor Administration Corporation	05-6815001 Maritime Affairs Division (Mr. Liao, Division Chief)	No. 1-1, Formosa Plastics Group Industrial Zone, Mailiao Township, Yunlin County	<p>1. Mailiao No. 1243, tugboat, 277 GT, 2400 hp, coastal area</p> <p>2. Mailiao No. 1245, tugboat, 277 GT, 2400 hp, coastal area</p> <p>3. Mailiao No. 1246, tugboat, 277 GT, 2400 hp, coastal area</p> <p>4. Mailiao No. 1401, tugboat/firefighting ship, 326 GT, 4000 hp, coastal area</p> <p>5. Mailiao No. 1402, tugboat/firefighting ship, 326 GT, 4000 hp, coastal area</p> <p>6. Mailiao No. 1404, tugboat/firefighting ship, 326 GT, 4000 hp, coastal area</p> <p>7. Mailiao No. 1501, tugboat/firefighting ship, 430 GT, 5150 hp, coastal area</p> <p>8. Mailiao No. 1502, tugboat/firefighting ship, 430 GT, 5150 hp, coastal area</p> <p>9. Mailiao No. 1503,</p>

Area	Company Name	Telephone Number	Address	Remarks
				tugboat/firefighting ship, 400 GT, 5000 hp, coastal area
	Red Cross Society of the Republic of China Taiwan Province Nantou County Branch	0937-757631 Executive Secretary Chang	No. 68, Lingxing Road, Nantou City	1. 6 divers 2. 6 sets of diving equipment 3. 4 lifeboats
	Miaoli County Water Life Saving Association	0933-546576 Mr. Lin, Chief of Staff	1F, No. 88, Mingsheng Road, Neighborhood 7, Kaiyuan Village, Zhunan Township, Miaoli County	4 lifeboats, 1 personal water craft
	Diving Rescue Association R.O.C.	04-23386168 Association	No. 200, Xinxing Road, Wuri District, Taichung City	1. 2 lifeboats 2. 1 heavy-duty vehicle 3. 36 divers 4. 36 sets of diving equipment
	Taichung City Water Life Saving Association	0933-838837 (Executive Secretary Lin)	No. 36, Alley 51, Lane 36, Jiadong Road, Waipu District, Taichung City	1. 5 sets of scuba equipment 2. 4 rubber boats, 1 aluminum case 3. 4 personal water crafts
	Taichung Harbor Volunteer Fire Brigade	04-26572480	No. 159, Zhongnan 1st Road, Wuqi District, Taichung City	4 divers

Area	Company Name	Telephone Number	Address	Remarks
	Red Cross Society Yunlin County Branch Water Life Saving Squadron	05-5353128	Rm. A, 3F., No. 228, Zhuangjing Rd., Douliu City, Yunlin County	1. 10 divers 2. 1 lifeboat 3. 10 sets of diving equipment
	Kinmen County Volunteer Firefighting Team	082-324021#5604 (Fire and Rescue Planning Section, Kinmen County Fire Bureau)	No. 315, Dinglin Road, Jinning Township, Kinmen County	1. West Kinmen Rescue Team: 16 members 2. East Kinmen Rescue Team: 22 members
	Kinmen County Harbor Management	Shuitou: 082-329538 Liao Luo: 082-332268	Shuitou: No. 5, Sec. 1, Xihai Road, Jincheng Township, Kinmen County Liao Luo: No. 2, Liaoluo Harbor, Jinhu Township, Kinmen County	1. Absorbent equipment: 2 boxes of oil absorbent pads (0.3 cm thickness, 100 pads per box) 2. Absorbent equipment: 2 oil absorbent rolls 3. Absorbent equipment: 10 packets of oil absorbent booms (10 booms per packet, 3 in.x 9.8 in.) 4. Absorbent equipment: 6 boxes of oil absorbent pads and pom poms 5. Absorbent equipment: 29 packets of oil absorbent booms (3 in.x 9.84 in., 10 booms per packet) 6. Degreasing equipment: 1 small scale high pressure dispersant sprayers (5 hp) 7. Protective equipment: 1 backpack breathing equipment 8. Protective equipment: 1 set of B

Area	Company Name	Telephone Number	Address	Remarks
				<p>grade protective clothing</p> <p>9. Protective equipment: 1 self-contained breathing apparatus</p> <p>10. Kao No. 103, tugboat, 327 GT, 2430 hp, coastal area.</p> <p>11. King Kang No. 1, tugboat, 198 GT, 1058 hp, coastal area</p>

(Southern Region)

Area	Company Name	Telephone Number	Address	Remarks
Southern Region	Port of Kaohsiung, Taiwan International Ports Corporation, Ltd.	07-5622127	No. 10, Penglai Rd., Gushan Dist., Kaohsiung City	1. TIPM 14401, tugboat, 473 GT, 4400 hp, coastal area (coastline) 2. TIPM 16401, tugboat, 498 GT, 6400 hp, coastal area (coastline) 3. TIPM 14502, tugboat, 442 GT, 4500 hp, coastal area (coastline) 4. TIPM 13401, tugboat, 344 GT, 3400 hp, coastal area (coastline) 5. TIPM 13403, tugboat, 399 GT, 3400 hp, coastal area (coastline) 6. TIPM 13403, tugboat, 344 GT, 3400 hp, coastal area (coastline) 7. TIPM 13405, tugboat, 399 GT, 3200 hp, coastal area (coastline) 8. TIPM 12601, tugboat, 342 GT, 2600 hp, coastal area (coastline) 9. TIPM 16402, tugboat, 499 GT, 6400 hp, coastal area (coastline) 10. TIPM 12605, tugboat, 392 GT, 2600 hp, coastal area (coastline) 11. TIPM 12606, tugboat, 392 GT, 2600 hp, coastal area (coastline) 12. TIPM 15401, tugboat, 498 GT, 5400 hp, coastal area (coastline) 13. TIPM 15402, tugboat, 498 GT, 5400 hp, coastal area (coastline)
	Yu Pin Shipping Co., Ltd.	Mr. Chen, Vice President 07-9686833 0985876657	9F-6, No. 110, Sanduo 4th Road, Lingya District,	1. Yu Da No. 568, tugboat, 499 GT, 5000 hp, coastal area (coastline) 2. Yu Yuan No. 101, tugboat, 303 GT, 3600 hp, coastal area

Area	Company Name	Telephone Number	Address	Remarks
		(Company) Dispatch station 07-5318598	Kaohsiung City	(coastline) 3. Yu Hong, tugboat/firefight ship, 337 GT, 4400 hp, coastal area (coastline) 4. Yu Ding No. 303, tugboat, 340 GT, 3300 hp, coastal area (coastline) 5. Yu Jing, tugboat, 221 GT, 2400 hp, coastal area (coastline) 6. Yu Chia, tugboat, 360 GT, 3500 hp, coastal area (coastline) 7. Yu Ying, tugboat, 358 GT, 3500 hp, coastal area (coastline) 8. Yu Chin No. 302, tugboat, 287 GT, 3200 hp, coastal area (coastline)
	Kaohsiung Marine Shiptservice Corp.	07-3312123 Mr. Chen, Chairman	12F-2, No. 29, Haibian Road, Lingya District, Kaohsiung City	1. Kao No. 145, tugboat, 198 GT, 1800 hp, harbor area and outer harbor 2. Kao No. 112, tugboat, 278 GT, 2400 hp, coastal area (coastline) 3. KMSC 451, tugboat, 484 GT, 4500 hp, coastal area (coastline) 4. KMSC 321, tugboat, 328 GT, 3200 hp, coastal area (coastline) 5. KMSC 322, tugboat, 329 GT, 3200 hp, coastal area (coastline)
	Asian Marine Company Limited	07-2692700 0936-368236 Mr. Lu	24F-1, No. 29, Haibian Road, Lingya District, Kaohsiung City	1. Salvage Ace, ocean-going tugboat, 1714 GT, 9000 hp 2. Salvage Champion, ocean-going tugboat, 1830 GT, 10000 hp 3. Salvage Rover, multi-purpose

Area	Company Name	Telephone Number	Address	Remarks
				workboat, 1879 GT, 6700 hp, offshore 4. Salvage Rigger, multi-purpose workboat, 1879 GT, 6700 hp, offshore 5. Salvage Worker, multi-purpose workboat, 2325 GT, 11000 hp, offshore 6. Salvage Buccaneer, multi-purpose workboat, 1974 GT, 12000 hp, offshore
	Woen Jinn Harbor Engineering Co., Ltd.	07-8022171	7F, No. 381, Hanmin Road, Xiaogang District, Kaohsiung City	1. Woen Jinn No. 1, tugboat, 197 GT, 2900 hp, offshore 2. Woen Jinn No. 8, tugboat, 48 GT, 1200 hp, coastal area (coastline) 3. Woen Jinn No. 16, anchor handling ship, 54 GT, 1166 hp, offshore
	Seagreen Marine Service Co., Ltd.	07-8136401 0937310225 Mr. Hou	No. 31, Lane 5, Xinsheng Road, Qianzhen District, Kaohsiung City	1. Seagreen No. 15, tugboat, 321 GT, 1074 hp, offshore 2. Oil withdrawal equipment (1) 10 double diaphragm pumps (2-inch) (2) 10 double diaphragm pumps (3-inch) (3) 10 oil pressure supply units (4) 8 high pressure air compressors (5) 12 caisson pumps (6) 2 centrifugal oil pumps (7) 2 pumps (8) 2 combined pumps

Area	Company Name	Telephone Number	Address	Remarks
	Hwa Chi Construction Co., Ltd.	07-8125968 0911333010 Mr. Tsai	Number 558, Kaixuan 4th Road, Qianzhen District, Kaohsiung City	1. Hai Yang No. 8, tugboat, 195 GT, 2200 hp, offshore 2. Hai Yang No. 9, tugboat, 197 GT, 3200 hp, offshore
	Hang Wen Enterprises Co., Ltd.	07-8033951 Mr. Li	2F., No. 27, Hongguang St., Xiaogang District, Kaohsiung City	Harnng Woen No. 5, tugboat, 155 GT, 2600 hp, offshore
	Ming Liang Transportation and Shipping Co., Ltd.	07-8062772 0911378321 Mr. Wu	1F, No. 507, Shanming Road, Xiaogang District, Kaohsiung City	Ming Liang No. 5, tugboat, 32 GT, 700 hp, coastal area (coastline)
	An-Ton Company Limited	07-8158636	10F-1, No. 102-5, Ziqiang 2nd Road, Qianjin District, Kaohsiung City	Oil withdrawal equipment 1. 4 three-inch high pressure air compressors 2. 6 two-inch high pressure air compressors 3. 3 three-inch motor pumps

(Eastern Region)

Area	Company Name	Telephone Number	Address	Remarks
Eastern Region	TIPC Marine Corporation, Ltd. (Hualien Port Branch Office)	(03)8223821 Mr. Yen-Sheng, Chuang	No. 21, Gangkou Rd., Hualien City, Hualien County	3 harbor tug and firefighting ships (1) TIPM 13203, tugboat, 329 GT, 3155 hp, coastal area. (2) TIPM 13205, tugboat, 347 GT, 3155 hp, coastal area. (3) TIPM 14302, tugboat, 415 GT, 4300 hp, coastal area. (Supporting Port of Keelung tentatively, which is expected to end in August 2021)
	Port of Hualien Branch, Taiwan International Ports Corporation, Ltd.	(03)8325131#25 21 0925-882817 Kuo-Hsien, Chang, Manager	No. 66, Hai'an Road, Hualien City	1. Oil absorbent equipment (1) Roll - 14 rolls (2) Pad - 7 boxes 2. 40 oil absorbent booms 3. Degreaser (in barrel) - 675 liters 4. Oil boom (1) Permanent air boom for harbor, 200 m (2) For rivers, 275 m 5. 1 set of weir skimmer 6. Dispersant sprayer equipment (1) Muscular operated system - 4 sets (2) High pressure system - 1 set 7. 1 high pressure dispersant sprayers 8. 1 high-pressure street washer truck 9. 1 forklift 10. 1 set of boom reel 11. 97 sets of D grade protective clothing 12. 1 patrolling vehicle

Area	Company Name	Telephone Number	Address	Remarks
	Hoping Industrial Port Corporation	(03)8681477 ext. 320 Section Chief: Wen-Hui, Yu	No. 6, Hegong 5th Road, Heping Village, Xiulin Township, Hualien County	1. 3 harbor tug and firefighting ships (1) Hopin Port No. 1, tugboat, 400 GT, 3619 hp, coastal area. (2) Hopin Port No. 2, tugboat, 400 GT, 3619 hp, coastal area. (3) Hopin Port No. 3, tugboat, 400 GT, 3619 hp, coastal area. 2. Oil absorbent equipment (1) Roll - 12 packets (2) Pad - 10 boxes
	Hualien County Water Sports Association	0952-009770 Kuan-Cheng, Chang, President	No. 341, Heping Rd., Hualien City, Hualien County	52 divers/underwater operators
	Hualien County Emergency Rescue Association	(03)8543919 0928-876599 Lien-Hsun, Lo, President	No. 100, Jixing Road, Ji'an Township, Hualien County	1. 10 personnel 2. 2 personal water crafts
	Hualien Oil Supply Center Hualien Silo	(03)8239770#14 1 0922-065835 Shih-Jung Chou	No. 2, Jilin Rd., Hualien City, Hualien County	1. 22 oil absorbent rolls (43 m - 13 rolls; 44 m - 1 roll; 80 m - 8 rolls) 2. Sawdust (absorbent equipment) - 480 kg 3. Oil boom (1) For harbors, 300 m (2) For rivers, 300 m
	CPC Hualien Oil Supply Service Center	(03)8267573#32 4 Min-Chieh,	No. 103-1, Jialin Village, Xincheng	1. Oil absorbent equipment (1) Pad - 30 pieces (2) Roll (43 m) - 11 rolls

Area	Company Name	Telephone Number	Address	Remarks
	(Beipu Silo)	Chuang	Township, Hualien County	2. Sawdust (absorbent equipment) - 6 gunny bags 3. Oil boom, 20 meters
	Santong Engineering Co., Ltd.	(03)8524888 Chun-Chi, Lai	No. 211, Jifeng Road, Ji'an Township, Hualien County	1 KATO hoist (25 tons)
	Shin Fa Marine Co., Ltd.	(089)351931 0932663492 Chih-Hsiung, Hsu	No. 79, Zhongzheng Road, Taitung City, Taitung County	Da Fa No. 1, general cargo ship, 284 GT, 520 hp, coastal area (Taitung Offshore Islands)
	Giant Dragon Co., Ltd.	(089)325811 0937390335 Tsung-Lung, Tien	No. 23, Lane 199, Chang'an Street, Taitung City, Taitung County	M/V Long Chun No. 2, general cargo ship, 332 GT, 1280 hp, coastal area (Taitung Offshore Islands)
	CPC Taitung Transportation Center	(089)227820 #249、254 (089)225992 0910390208 Jung-Feng, Peng	No. 19, Sec. 2, Zhongxing Road, Taitung City	1. 17 oil absorbent rolls 2. Sawdust (absorbent equipment) - 100 kg 3. Oil boom Permanent air boom for harbor, 500 m (including Green Island, 80 m and Orchid Island, 80 m)
	Jong Shyn Shipbuilding Group, Hualien	0916903130 Hsu-Ming, Chu, Manager	No. 35, Gangbin, Hualien City,	1 underwater operator

Area	Company Name	Telephone Number	Address	Remarks
	Office		Hualien County	
	Dong Yi Marine Engineering Co., Ltd.	(03)8534315 0937168534 Hsing-Jung, Lien	1F., No. 356, Sec. 2, Ji'an Rd., Ji'an Township, Hualien County	1. Dong Lian No. 1, mud barge, 196 GT, 1450 hp, coastal area 2. Dong Lian No. 2, mud barge, 198 GT, 1479 hp, coastal area 3. Dong Lian No. 8, tugboat, 130.67 GT, 986 hp, offshore 4. Dong Lian No. 15, work pontoon, 845 GT, unpowered, coastal area
	Hung Yang Marine Engineering Co., Ltd.	(03)8534315 0937168534 Hsing-Jung, Lien	1F, No. 34-112, Heping Village, Xiulin Township, Hualien County	1. Dong Lian No. 3, floating crane, 586 GT, unpowered, coastal area 2. Dong Lian No. 5, dredger, 983 GT, unpowered, coastal area 3. Dong Lian No. 6, workboat, 19.57 GT, 434 hp, coastal area

Appendix 5. Contact Information for Reporting Marine Casualty per Administration Zones, Maritime and Port Bureau, Ministry of Transportation and Communications

Contact Information for Reporting Marine Casualty per Administration Zones, Maritime and Port Bureau, Ministry of Transportation and Communications

I. Contact information for reporting marine casualty to Maritime and Port Bureau:

- (I) Maritime and Port Bureau: Telephone no.: 02-89782563; mobile no.: 0972-762-608, fax no.: 02-27018491
- (II) North Taiwan Maritime Affairs Center, Maritime and Port Bureau: Telephone no.: 02-24285369; mobile no.: 0963-795-853; fax no.: 02-24284322
- (III) Central Taiwan Maritime Affairs Center, Maritime and Port Bureau: Telephone no.: 04-23690729; mobile no.: 0963-835-995; fax no.: 04-26580302
- (IV) South Taiwan Maritime Affairs Center, Maritime and Port Bureau: Telephone no.: 07-2620750, 07-2620762; mobile no.: 0963-798-659; fax no.: 07-5216078, 07-5215805
- (V) East Taiwan Maritime Affairs Center, Maritime and Port Bureau: Telephone no.: 03-8509011; mobile no.: 0972-762-922; fax no.: 02-33229323

II. Maritime and Port Bureau's division of seas for search and rescue operations and jurisdictional seas for maritime administration certification of maritime cases are as follows:

- (I) Jurisdictional sea of North Taiwan Maritime Affairs Center: Areas from the intersection of Hualien County and Yilan County (Heping River at 24 degrees 18 minutes 44 seconds north latitude, 121 degrees 45 minutes 45

seconds east longitude) at true bearing 090 degree line to the intersection of Taoyuan City and Hsinchu County (Keke Port at 24 degrees 57 minutes 00 seconds north latitude, 120 degrees 58 minutes 30 seconds east longitude) at true bearing 305 degree line. The areas are under the jurisdiction of North Taiwan Maritime Affairs Center, Maritime and Port Bureau.

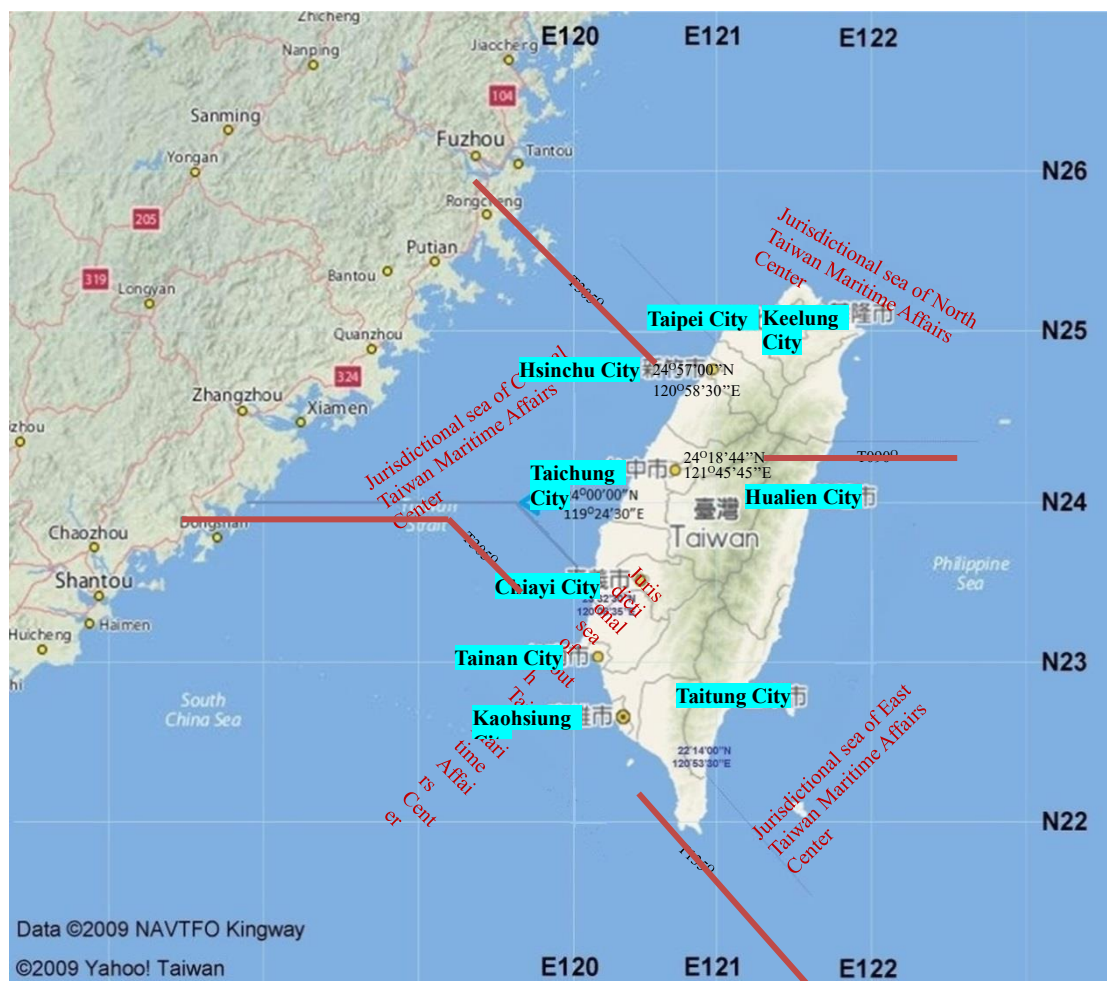
(II) Jurisdictional sea of Central Taiwan Maritime Affairs Center: Areas from the intersection of Taoyuan City and Hsinchu County (Keke Port at 24 degrees 57 minutes 00 seconds north latitude, 120 degrees 58 minutes 30 seconds east longitude) at true bearing 305 degree line to the intersection of Yunlin County and Chiayi County (Beigang River at 23 degrees 32 minutes 30 seconds north latitude, 120 degrees 08 minutes 35 seconds east longitude) stretching west along the true bearing 305 degree line to 24 degrees 00 minutes 00 seconds north latitude, 119 degrees 24 minutes 30 seconds east longitude, and bordered by 24 degrees north latitude. The areas are under the jurisdiction of Central Taiwan Maritime Affairs Center, Maritime and Port Bureau.

(III) Jurisdictional sea of South Taiwan Maritime Affairs Center: Areas west from the intersection of Yunlin County and Chiayi County (Beigang River at 23 degrees 32 minutes 30 seconds north latitude, 120 degrees 08 minutes 35 seconds east longitude) along true bearing 305 degree line to 24 degrees 00 minutes 00 seconds north latitude, 119 degrees 24 minutes 30 seconds east longitude, and from there along the 24 degree north latitude line to the intersection of Pingtung County and Taitung County (Guanyinbi at 22 degrees 14 minutes 00 seconds north latitude, 120 degrees 53 minutes 30 seconds east longitude) at true bearing 135 degrees. The areas are under the jurisdiction of South Taiwan Maritime Affairs Center, Maritime and Port Bureau.

(IV) Jurisdictional sea of East Taiwan Maritime Affairs Center: Areas from the

intersection of Pingtung County and Taitung County (Guanyinbi at 22 degrees 14 minutes 00 seconds north latitude, 120 degrees 53 minutes 30 seconds east longitude) at true bearing 135 degree line to the intersection of Hualien County and Yilan County (Heping River Port at 24 degrees 18 minutes 44 seconds north latitude, 121 degrees 45 minutes 45 seconds east longitude) at true bearing 090 degree line. The areas are under the jurisdiction of Eastern Taiwan Maritime Affairs Center, Maritime and Port Bureau.

Division of jurisdictional seas of maritime affairs centers, Maritime and Port Bureau



Appendix 6. Operation Principles of Incident Command for Marine Salvage of Port and Pier (also applicable to fishing and yacht harbors)

I. Objectives:

The principles shall serve as the reference for the incident command of marine salvage conducted at harbors, piers and seas (including underwater marine salvage).

II. Designation of incident commander of marine casualties and the scope of duties:

- (I) To implement unified command, coordination, and integration of disaster relief resources, in the event of a marine casualty and disaster occurring in a harbor (commercial and fishing harbors, naval bases, industrial and yacht harbors) area, the incident commander shall be assumed by the head of the port management agency (affiliated institution) or a personnel designated by the head. For marine salvage at areas outside harbors, the commander of the coast guard unit of the jurisdiction or his designated personnel shall serve as the incident commander.
- (II) For harbors, piers, fishing harbors and coastline area that are not under the purview of any management agencies (affiliated institutions) and managers, the Coast Guard Administration and the corresponding municipal and county (city) governments shall jointly assume the incident command for the marine salvage. For marine salvage on sea surface and estuaries, the coast guard unit shall assume the incident command role. For rescue within inland area, the municipal and county (city) governments shall assume the execution role.
- (III) After the establishment of the Central Emergency Operation Center for marine casualty, its commander shall designate a member of a pertinent unit to serve as the incident commander depending on the salvage situation. The

incident commander shall direct and integrate all salvage teams of all search and rescue units, as well as their assignments.

- (IV) Criteria for the candidate of the incident commander: 1. Familiar with the harbors, piers, environment of the seas. 2. Possess the authority to direct the use of harbor resources 3. The first candidate shall be the manager of the harbor; the backup candidate shall be the response manager; the second backup candidate shall be the occupational safety manager. (The candidate and backup candidates shall be pre-determined based on the harbor characteristics.)

III. Incident command of marine salvage

- (I) For on-site marine salvage, the director of the port or waterway management authority (agency) may designate the harbor master or disaster relief supervisor to take charge of the incident command and mobilize the relevant agencies of the harbor or overseeing the waterways: coast guard units, fire departments, customs, health inspection units, environmental protection agencies, maritime affair centers, lessees of storage and pier, shipping agents, tug operators, supporting units and police. These units shall gather at the forward command post.
- (II) For marine casualties with four casualties or missing person(s), and a leak or imminent leak of residual fuel oil between 100 metric tonnes and 700 metric tonnes from a vessel on the seas of Taiwan, the Maritime and Port Bureau and Ministry of Transportation and Communications shall be alerted; for marine casualties caused by offshore wind power generation, the Ministry of Economic Affairs shall be alerted; for marine casualties with over ten casualties or missing person(s), and a leak or imminent leak of residual fuel oil exceeding 700 metric tonnes from a vessel on the seas of Taiwan, the Execution Yuan shall be alerted (Office of Disaster Management, 02-

89114211).

IV. Venue for establishing forward command post

The port or waterways management agencies (affiliated institutions) shall regularly check for the appropriate location to serve as the forward command post on a regular basis, and establish a database. The criteria for location selection are as follows:

- (I) Avoid setting up at indoor or outdoor location that may be subject to secondary disasters.
- (II) The space can accommodate at least 30 persons and has water and electricity supply, telecommunication and internet.
- (III) The traffic of the location shall be convenient and conducive for on-site coordination, liaison and commanding.

V. Functions and composition of forward command post

The main functions of the forward command post is undertaking on-site marine salvage. Saving casualties is the priority. The functions undertaken by on-site tasks shall include saving lives, and providing information and logistics support. Depending on the actual needs of the situation or the nature of the sea, the division of functions and number of stationing personnel shall be adjusted, or increased (decreased) so that the forward command post is able to fulfil its integrated administrative function in marine salvage. As such, the grouping of tasks and stationing units shall be recommended as follows:

- (I) Search team: The search team shall be taken charge by the unit where the incident commander belongs to. Depending on the situation of the disaster, coast guard units, fire departments, national army, National Airborne Service Corps, high tech and academic units shall be liaised and included.
- (II) Support allocation team: The port or waterways management agencies (affiliated institutions) shall take charge. The fire departments, coast guard

units and national army shall also take part. Undertake support allocation matters.

- (III) Medical care team: The departments of health of local county or city governments shall take charge. The shipping lines, shipping agents and port or waterways management agencies (affiliated institutions) shall collaborate in the effort. Monitor the number of casualties and coordinate for casualties to receive medical care. Meanwhile, the port management agencies (affiliated institutions) shall provide all resources needed for salvage to departments of health as much as possible, including salvage resources, equipment, and venue and contact information.
- (IV) Pollution treatment team: The port or waterways management agencies (affiliated institutions) shall take charge. The coast guard units, environmental protection agencies, maritime affair centers and shipping lines whose vessels are involving in the marine casualties shall take part in executing the emergency response measures for marine pollution.
- (V) Field control team: The police department of the region shall take charge, whilst the port or waterways management agencies (affiliated institutions) shall also take part. Undertake access control for personnel and maintenance of security at the disaster area.
- (VI) Aides and staff team: The port or waterways management agencies (affiliated institutions) shall take charge, whilst the maritime affair centers shall also take part.
1. Undertake collection of disaster information, reporting, announcements of disaster updates and consolidation of rescue situation.
 2. Liaise with the relevant agencies (affiliated institutions) and support units.
 3. Monitor the overall response measures, analyze and evaluate the situation of the disaster and provide contingent plan for decision making on response

measures.

4. Undertake the announcements to the press and prepare press releases to the spokesperson, so that the spokesperson is able to speak on behalf of the forward command post.
 5. Serve as the liaison channel for the forward command post to promptly communicate the central government's response policy or on-site situation and needs of the disaster.
 6. Arrange for officials of minister level or higher to survey the disaster site.
- (VII) Logistics support team: The competent agencies (affiliated institutions) of port or waterways management shall take charge.
1. Undertake procurement, accounting, reimbursement of expenses and other matters.
 2. Set up the telephone, computers, fax machines, internet, e-mails and other communication method for the forward command post.
 3. Arrange for the transportation, food and lodging of stationing personnel, reception of victim families, allocation of vehicles and other miscellaneous matters.
- (VIII) Evacuation and shelter team: The local county or city governments and social affairs units shall take charge. The shipping lines, shipping agents and port or waterways management agencies (affiliated institutions) shall collaborate in the effort. Undertake the evacuation of victims.

VI. Procedures for incident command (Table 6, Attachment 1):

- (I) Different management agencies (affiliated institutions) shall promptly verify the severity of the marine casualty when it occurs and report to the rescue units.
- (II) As the number of casualties mounting and the magnitude of disaster expanding, the forward command post shall be established and the relevant

rescue units within and without the harbor area shall be notified to station in the forward command post. The director of the port or waterway management agency (affiliated institution) or the personnel designated by the director shall assume the position of the incident commander. The incident commander shall designate on deputy incident commander to assist in undertaking the relevant matters, as well as assuming the position as the spokesperson.

- (III) After various units arrive at the designated location, they shall send a representative to report to the incident commander and establish or join a functional grouping according to the directive of the incident commander. The team leader of each functional grouping shall be designated by the leading unit and shall command the task execution.
- (IV) After the forward command post is established, the incident commander shall be tasked to inform the units present regarding the situation of the disaster, and shall request different management agencies (affiliated institutions) to report the situation of the disaster. The search team shall provide supplement to the report and inform on the survey of the disaster site. After listening to the reports of different groupings, the incident commander shall formulate the strategy of the marine salvage and consolidate the capacity of different rescue units.
 - 1. Implement rescue measures based on (by referring to) the opinions of the coast guard units, fire departments, national army, National Airborne Service Corps, high tech and academic units. Various rescue units shall provide assistance.
 - 2. Where underwater rescue is required, seek opinion of the R.O.C. Navy Underwater Operations Unit and China Aviation Industry Foundation personnel training center on the manpower and equipment required.

3. For oil and chemical pollutions, request shall be put to the environmental protection agencies and Ocean Affairs Council for conducting disaster site survey and providing their opinion on the marine salvage.
 4. For issues pertaining to vessels or cargo, the opinion of custom agencies and maritime affair centers shall be sought.
- (V) When the incident commander determines that the capacity for salvage is not adequate, he shall request supporting capacity or undertake emergency procurements where necessary.
1. Request for support from the local or neighboring governments, Coast Guard Administration, national army, etc.
 2. For emergency search and rescue for major disaster requiring swift mobilization of various relevant rescue units to execute the rescue missions, the incident commander shall report to the National Rescue Command Center to apply for supporting capacity in accordance with the center's operating guidelines.
 3. For emergency search and rescue for major disaster requiring underwater marine salvage capacity, in accordance with the Regulations on National Army Assistance in Disaster Prevention and Protection, the local governments or central competent authority shall make a request to the Ministry of National Defense for support. However, in case of an emergency, they may report to National Rescue Command Center. The relevant units still have to submit their applications in accordance with the regulations.
 4. In accordance with the support provision agreements signed, the neighboring county (city) governments, Coast Guard Administration, national army, private rescue enterprises shall also be invited to form the rescue capacity.

5. When the existing government capacity in terms of equipment, machinery or personnel is insufficient and in need of mobilizing other private resources, emergency procurement shall be undertaken.
- (VI) The incident commander shall convene rescue and response meeting regularly to gain understanding on the disaster situation, including “rescue units reporting to duty, tasks assignment”, “progress of rescue”, “status of stranded and missing person(s) and casualties” and “follow-up of victims receiving medical care”, and then, issue directives on the tasks.
- (VII) The stationing personnel shall perform verification first on the tasked received or disaster cases, and undertake these tasks in accordance with regulations. When they are on duty, they shall not leave their positions without permission. They shall not be derelict in their duties and shall not alter their duties randomly.
- (VIII) To avoid having the public speculating on the rescue situation, the deputy incident commander shall promptly and uniformly issue press releases, so as to deliver accurate information and progress report of the rescue measures.

VII. Timing of dissolution

When the situation of the disaster has improved or resolved, the coordination of salvage measures has been completed or can be done via liaising by telephone and documents, the commander may determine whether to reduce the grouping or dissolve the team.

VIII. Precautions for on-site rescue:

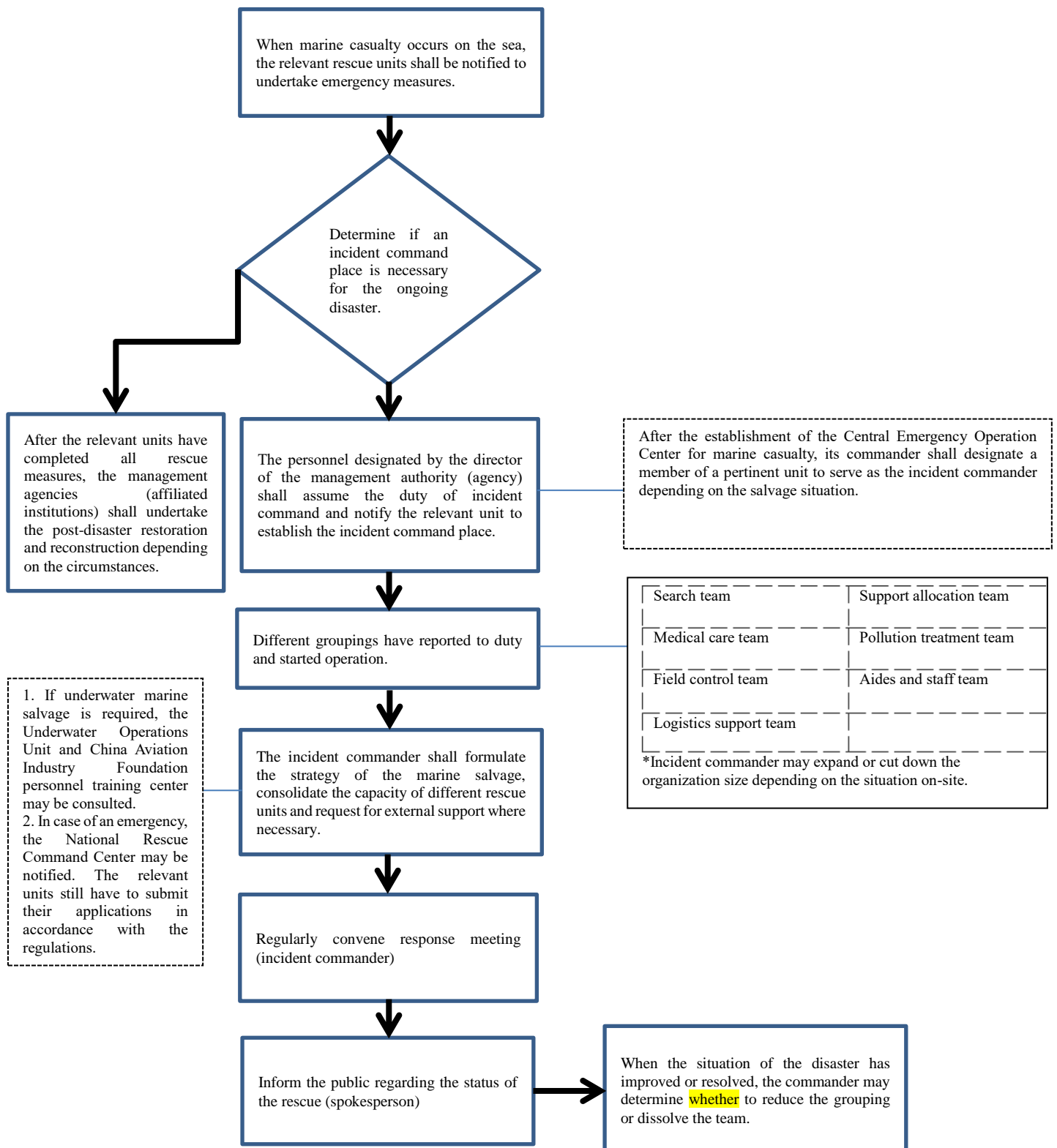
- (I) Set up on-site control zones and establish alerting posts. Limit foot and vehicle traffics and remind other agencies to stay alert.
- (II) The aides and staff team shall survey the magnitude of the disaster and report to the incident commander to establish “Report-to-Duty Stand”, “Incident

Command Stand”, “Medical Stand”, “Joint Services Center” and “Reception of Media”.

- (III) If the platforms are established for more than one day, they shall work in shifts, where the morning shift is from 8 a.m. to 8 p.m., whilst the night shift is from 8 p.m. to 8 a.m. in the following morning.
- (IV) To facilitate the liaison between various rescue units, the port or waterways management agencies (affiliated institutions) shall regularly establish an emergency contact list on a regular basis to document the contact personnel and information of the relevant rescue units for the use in marine casualty emergencies. Meanwhile, the contact list shall be updated regularly to ensure the accuracy of the information.
- (V) The traffic on-site shall be subject to the supervision of harbor police brigades, whilst the reporters shall be received by the spokesperson of the incident command place.
- (VI) Pertaining to regional matters, coordination with local governments shall be undertaken to reach consensus and avoid a shifting of responsibility.
- (VII) Functions of Marine Casualty Response Records Table for Ports, Piers, and Water Areas (also referable for fishing and yacht harbors) (Appendix 6, Attachment 2): The form is for attendance marking for the relevant units. The unit which cannot be present shall contact the incident command place or the liaison to report to duty. For units that are absent without permission, the Maritime and Port Bureau shall forward to the Executive Yuan for further inspection. The form shall also record the survey on the disaster site and opinion on the rescue measures performed by the fire departments, coast guard units, national army and environmental protection agencies for the information of the incident commander on directing the rescue effort and documentation purpose.

- (VIII) The incident commander shall oversee and maintain a proper span of management and authority. Unnecessary units shall be dissolved.
- (IX) To facilitate rescue identification, report-to-duty, attendance marking and incident command, the incident commander and stationing personnel shall wear vests or armbands.
- (X) After completing the rescue missions, a copy of the Marine Casualty Disaster Report and Marine Casualty Response Records Table shall be forwarded to the Maritime and Port Bureau and Ministry of Transportation and Communications for documentation purpose. They shall also serve as a key performance evaluation item for the municipal, county and city governments on marine casualty prevention and protection measures.

Appendix 6 - Attachment 1 Operating Procedures for Incident Command for Marine Salvage of Port and Pier



Appendix 6 - Attachment 2 Marine Casualty Response Records Table for Ports, Piers, and Water Areas (also referable for fishing and yacht harbors)

Year/Month/Day

I. Name of incident:

II. Incident commander:

III. Deputy incident commander(s):

IV. Record:

V. Sign-in list for the pertinent response units for marine casualty in port areas: (different authorities may make revision based on their own requirements)

Unit	Position	Name	Telephone number		Unit	Position	Name	Telephone number
Fire department					Regional environmental protection agency			
Harbor police brigade					Coast guard unit			
Customs					Maritime affair centers			
Taiwan International Ports Corporation, Ltd.					Shipping line			
Pier contractor					Cargo owner and shipmaster			
Tug operator					Health inspection unit			
Reporter								

VI. Survey on disaster situation and recommendations:

VII. Rescue functional groupings of the incident command place

Grouping	Leading unit	Participating unit	Function	Group chief	Number of members

VIII. Recommendations by pertinent rescue units:

IX. Directives of incident commander

Appendix 6 - Attachment 3 Checklist for Basic Equipment in the Incident Command Place

No.	Equipment	Item	Ready
1	Hardware equipment	Tent	
2		Table	
3		Chair	
4		Barricade tape	
5		Traffic cone	
6	Telecommunication equipment	Wireless transceivers	
7	Operating accessories for grouping	Vest	
8		Flag	
9		Badge	
10	Power generation equipment	Generator	
11		Wire extension	
12	Briefing and word processing	LCD screen	
13		Speaker equipment	
14		Briefing whiteboard	
15		Multi-function printer	
16		Laptop	
17	Lighting equipment	Lighting equipment in incident command tent	
18		Mobile illuminating lamp	
19	Audio recording equipment	Recording pen	

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Appendix 7. Standard operating procedures of Central Emergency Operation Center for marine casualty

I. Citation of regulations:

- (I) Disaster Prevention and Protection Act
- (II) The Commercial Port Law
- (III) The Enforcement Rules of Disaster Prevention and Protection Act
- (IV) Operation Guidelines for Central Emergency Operation Center

II. Objectives:

These operating procedures are to unify the rescue procedures for marine casualties and strengthen the effectiveness of the rescue measures. In the event of a marine casualty, the authorities shall be able to command, oversee, coordinate and liaise with various pertinent agencies and local governments to undertake the subsequent response measures, in hopes of minimizing the effect and damage of the marine casualty. As such, these operating procedures stipulate the operating details, so as to serve as the basis of compliance.

III. The missions of Central Emergency Operation Center for marine casualty are as follows:

- (I) Strengthen the vertical command, supervision, horizontal coordination, and liaison of the pertinent authorities responsible for marine casualty prevention and protection and undertake various disaster response measures.
- (II) Monitor the development of disaster, provide disaster information promptly, and notify relevant units to undertake response measures.
- (III) Undertake data collection, evaluation, processing, compilation and reporting of disaster development information.

(IV) Undertake the distribution and support for emergency disaster relief manpower and resources.

(V) Undertake other salvage measures.

IV. Stationing agencies and personnel of the Central Emergency Operation Center for marine casualty:

The Ministry of Transportation and Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Economic Affairs, Ministry of Justice, Council of Agriculture, Environmental Protection Administration, Mainland Affairs Council, Ministry of Health and Welfare, Ocean Affairs Council, Coast Guard Administration, Ocean Conservation Administration, Office of Disaster Management, Department of Information Services shall send personnel to join the operation center to undertake emergency response measures. Depending on the severity of marine casualty, they shall notify other agencies (units and organizations) to designate personnel to join the operation center upon the approval of the commander.

V. Timing of establishment and dissolution:

(I) Timing of establishment:

In the event of a marine casualties occurring within the scope of search and rescue of Taiwan (Taipei Flight Information Region) with severe damage to the vessel and more than 15 estimated casualties or missing persons, or a leak or imminent leak of residual fuel oil exceeding 700 metric tonnes, and the conditions are severe, once the Ministry of Transportation and Communications deems the establishment of the center necessary, and the center is thereof established, it shall immediately report to the convener of the Central Disaster Prevention and Response Council (hereafter, the Council Convener). The Council

Convener shall designate the Minister of Transportation and Communications to serve as the incident commander to oversee the disaster response of the operation center. The Council Convener shall designate one to five Ministers Without Portfolio of the Executive Yuan and other directors of central competent authorities for disaster prevention and protection to assist the commander in undertaking disaster response. The commander shall designate one to five deputy commanders. One of the deputy commanders designated shall be the Director-general of National Fire Agency. Meanwhile, In the event of the marine casualty giving rise to an oil leak, one of the deputy commanders designated shall be the director-general of the Ocean Conservation Administration to provide assistance to the commander and coordinate with the commander in undertaking the response measures.

(II) Timing of dissolution:

When the disaster has stopped expanding in magnitude or the situation of the disaster has improved, the commander may determine whether to reduce the grouping. For personnel who are no longer required to undertake emergency measures, they shall be allowed to return to their original position. The emergency response measures for disaster have been completed. The subsequent restoration and reconstruction shall be undertaken by different authorities or units. As the convener, the incident commander shall inform of the dissolution via a written report.

VI. Location of Central Emergency Operation Center for marine casualty:

In accordance with the Operation Guidelines for Central Emergency Operation Center, in principles, the location of the operation center shall be set at the National Fire Agency. The venue must be furnished with sufficient

office supplies, information and telecommunication facilities and other necessary software and hardware equipment. The information and telecommunication facilities shall be operated and maintained by the National Fire Agency.

VII. Assignments of the stationing units in the Central Emergency Operation Center for marine casualty:

(I) Ministry of Transportation and Communications:

1. Requisition and allocation transportation vehicles.
2. Provide information on sea and weather conditions.
3. Coordinate with transportation operators in providing refrigeration container required to store the deceased.
4. Oversee marine salvage authorities and agencies of all levels in undertaking the marine salvage and rescue at harbor area (commercial and fishing harbors, naval bases, industrial and yacht harbors).
5. Undertake other marine casualty response measures.

(II) Ocean Affairs Council: Oversee the undertaking of marine salvage and marine oil pollution response measures.

(III) Coast Guard Administration, Ocean Affairs Council:

1. Undertake evidence collection and other measures for marine casualties of offshore vessels.
2. Undertake the search, rescue, and emergency aid for vessels and personnel in marine casualties and aircrafts, as well as personnel in offshore crashes.
3. Promptly collect the marine casualty information within the vicinity of the incident and report information in accordance with the regulations on emergency reporting operations for marine casualties.
4. Maintain the alertness and order at the coastal control zones.

5. Undertake the marine casualty and marine pollution response for vessels in accordance with Marine Pollution Control Act.
6. Assist the maritime administration or port management agencies (affiliated institutions) in the necessary marine traffic dispersion and control measures.
7. Assist in emergency transportation for salvage manpower, supplies and victims.

(IV) Ocean Conservation Administration: Undertake and assist the investigation, monitoring and evaluation of marine oil pollution in accordance with Contingency Plans for Major Marine Oil Pollution Emergencies.

(V) Ministry of National Defense: As per the directive of the commander of Central Emergency Operation Center, the following work shall be undertaken:

1. Oversee national army on standby to execute major marine salvage and search for survivors.
2. Undertake the marine casualty emergency response measures on naval bases under its purview.
3. Assist various disaster prevention and protection authorities in rescue missions of emergency response measures.

(VI) Ministry of the Interior:

1. Execute the marine casualty emergency response measures on yacht harbors under its purview.
2. Oversee and assist the fire departments in executing rescue measures for marine casualties taking place at coastal areas.
3. Oversee and assist local governments in handling bodies of victims and funerary matters; where necessary, coordinate with related agencies (affiliated institutions) for the undertaking.

4. Oversee and execute the guard duty at coastal area of the disaster and traffic dispersion; and assist in the autopsy of the deceased.
5. Oversee the assistance provided by local governments in maintaining the alertness and order at the coastal control zones.

(VII) Ministry of Foreign Affairs:

1. Assist in the nationality verification of foreign casualties or missing persons and the shipowner.
2. Coordinate and liaise to secure foreign aid resources in cases of severe disasters.
3. Supervise embassies (consulates) in foreign regions to provide proper assistance for search and rescue and disaster relief operations for merchant vessels, fishing boats, and seafarers of Taiwan involved in marine casualties overseas.
4. Other related coordination and liaison for affairs that involve foreign countries.

(VIII) Ministry of Justice: Oversee local prosecutors offices in completing the autopsies of victims as early as possible.

(IX) Ministry of Economic Affairs:

1. Oversee management of harbors (industrial harbors) under its purview and offshore wind farm operators in undertaking the marine casualty response measures.
2. Oversee and undertake the marine casualty and marine pollution response for harbor (industrial harbors) under the purview and vessels at offshore wind farm operators in accordance with Marine Pollution Control Act.

(X) Ministry of Health and Welfare: Monitor the activation of emergency medical care system of local governments and their capacity after

receiving marine casualty reports and provide the necessary assistance.

(XI) Council of Agriculture, Executive Yuan:

1. Oversee the fishing harbor authorities (interim management) in executing the marine salvage at fishing harbor.
2. Assist in the emergency search and rescue of crew members of fishing vessels, boat towing and other emergency response measures.
3. Provide information on the nationality, crew members, seafarers, gross tonnage, etc. of the fishing vessel involving in the incident.
4. Undertake the marine salvage rescue and response.
5. Supervise fisheries radio broadcasting stations and Fishery Radio Station in executing marine salvage notifications.

(XII) Environmental Protection Administration, Executive Yuan: Accept sludge from cleanup.

(XIII) Mainland Affairs Council:

1. Assist in the liaising with the agencies from Mainland China, Hong Kong and Macau to assist casualties, seafarers or otherwise, from the said areas and arrange for their families coming to Taiwan.
2. Assist in the liaising with the agencies from Mainland China, Hong Kong and Macau to handle matters pertaining to marine casualties.

(XIV) National Rescue Command Center: In accordance with the operating guidelines of National Rescue Command Center, undertake the search and rescue, and emergency casualty transportation to medical institutions.

(XV) Department of Information Services: Assist the central competent authorities of disaster prevention and protection. Via mass media, strengthen the news reporting on response measures and disseminate the latest information to the public.

(XVI) Office of Disaster Management: Undertake the analysis on information of

disaster and salvage strategy. Provide recommendations to the incident commander for decision making. Oversee and evaluate the marine salvage measures undertaken by various Central Emergency Operation Center agencies.

(XVII) Municipal and county (city) governments:

1. Execute the marine casualty response measures in all harbors and scenic spots under its purview.
2. Oversee and undertake the marine casualty and marine pollution response for harbor (fishing, commercial and yacht harbors) under the purview in accordance with Marine Pollution Control Act and harbor functions regulations.
3. Assist in maintaining the alertness and order at the coastal control zones.
4. Provide temporary shelters.
5. Ensure smooth traffic for transporting casualties and the deceased. Ensure proper storage and autopsy of the bodies.
6. Provide support to search and rescue undertaken at coastal area of the disaster and assist in providing land transportation.
7. Activate the emergency medical care system and arrange for casualties to receive medical care.
8. Impose control and prohibition measures on the establishment of danger zone and controlled area at the coast.
9. Data collection and reporting of information on the disaster.

VIII. To cater to the needs of the Central Emergency Operation Center for marine casualty, aides, information, operation and administration teams shall be established to undertake various disaster response measures. The leading and participating authorities for various functional groupings and their assignments are as follows:

- (I) Aide group: Convert data pertinent to disaster prevention and rescue. Consolidate decisions pertinent to disaster prevention and rescue, and recommendations on rescue measures.
1. Aides and staff team: The team is led by the Office of Disaster Management and participated by the Ministry of Transportation and Communications, Council of Agriculture, Ocean Affairs Council, Coast Guard Administration, Ministry of National Defense, Ministry of the Interior and Ministry of Economic Affairs. It shall undertake the analysis of disaster situation, forecast of subsequent development, recommendation of rescue strategies and measures for the decision making of the incident commander.
 2. Evaluation and follow-up team: The team is led by the Office of Disaster Management and participated by the Ministry of Transportation and Communications and Council of Agriculture. It shall undertake the evaluation and follow-up on the execution of various response measures and the matters instructed by the incident commander or stipulated by work reports.
 3. Disaster monitoring team: The team is led by the Ministry of Transportation and Communications and participated by the Ocean Affairs Council, Coast Guard Administration, Council of Agriculture, Ministry of the Interior, Ministry of Economic Affairs and Ministry of Health and Welfare. It shall undertake in disaster data collection, verification and follow-up, and monitor news reporting. It shall also consolidate the latest disaster information of different groupings and prepare disaster report regularly which shall be made public online.
- (II) Information team: Consolidate and convert information pertaining to various disaster prevention and response and meet the objective of effectuating

the ubiquity of disaster prevention information.

1. Press Team: The team is led by the Department of Information Services, and participated by the Ministry of Transportation and Communications, Council of Agriculture, Ocean Affairs Council, Coast Guard Administration, Ministry of the Interior and Ministry of Economic Affairs. It shall hold press conferences at the Central Emergency Operation Center for marine casualty, issue press releases, correct erroneous reporting, promote public awareness on disaster prevention and liaise with media outlets.

2. Internet information team: The team is led by the Ministry of Transportation and Communications, and participated by the Council of Agriculture, Ocean Affairs Council, Coast Guard Administration and Ministry of the Interior. It shall monitor the development of the disaster and the transmission of response information, undertake the effectuation of the ubiquity and transparency of the disaster prevention information, update and maintain the information on the website dedicated for disaster response.

(III) Operation team: Provide support and undertake the execution of various rescue measures.

1. Support allocation team: The team is led by the Ministry of National Defense, and assisted by the Ministry of Transportation and Communications, Council of Agriculture, Ocean Affairs Council, Coast Guard Administration, Ministry of the Interior and Ministry of Economic Affairs. It shall integrate the all-out national defense mobilization system, monitor and follow up on the delivery time, location and progress of the allocation of manpower, machineries and other resources. It shall also undertake other pertinent allocation of resources.

2. Search and rescue team: The team is led by the Ocean Affairs Council and Coast Guard Administration, and assisted by the Ministry of National Defense and Ministry of the Interior. It shall undertake the search and rescue, as well as the allocation and support of emergency medical care.
3. Shelter provision team: The team is led by the Ministry of Health and Welfare, and participated by the Ministry of National Defense, Ministry of Transportation and Communications, and Council of Agriculture. It shall monitor the location of various shelters, sheltering of victims and the number of victims that can be accommodated. It shall also undertake other support matters pertaining to sheltering and assisting the allocation of relief.
4. Medical team: The medical team is led by the Ministry of Health and Welfare who undertakes the direction of medical support affairs and supervision of patient admission of emergency care responsibility hospitals.
5. Foreign aid team: The team is led by the Ministry of Foreign Affairs, and participated by the Ministry of Transportation and Communications, Council of Agriculture and Mainland Affairs Council. It shall monitor the information and progress of foreign aids, and undertake the coordination and liaison with foreign counterparts.
6. Pollution treatment team: The team is led by the Ocean Affairs Council and Ocean Conservation Administration. It shall coordinate with the pertinent central authorities, local governments and other competent authorities to undertake the emergency response measures for marine pollution as per organization hierarchy. The latest results of the response measures shall be reported back to the central disaster response center

for marine casualty promptly. The central disaster response center for marine casualty shall then perform the overall planning of the marine casualty prevention and protection measures.

(IV) Administration team: Provide support in holding meetings of the Central Emergency Operation Center for marine casualty and undertake administrative and logistics matters.

1. Administrative team: The team is led by the Ministry of Transportation and Communications to undertake the documentation of meeting minutes and records for the Central Emergency Operation Center for marine casualty.

2. Logistics team: The team is led by the Ministry of Transportation and Communications, and participated by the Ministry of the Interior. It shall undertake the allocation of logistics support for the Central Emergency Operation Center for marine casualty.

IX. Depending on the circumstances, the incident commander shall initiate functional grouping or increase the stationing personnel from other agencies in a flexible manner. The incident commander shall also designate the leading authority of the functional grouping in overseeing the coordination with local governments to provide the necessary assistance. The member agencies of the functional grouping shall send units under their purview to station in the operation center where necessary; where necessary, the leading agencies of the functional groupings, after seeking the approval of the incident commander, shall inform other agencies to send personnel to participate in the operation.

X. For matters not stipulated by this SOP, the Disaster Prevention and Protection Act and Operation Guidelines for Central Emergency Operation Center shall be applicable.

Appendix 8. Regulations Governing the Operation of Forward Coordination Post of the Central Emergency Operation Center for Marine Casualty

I. Objectives

These regulations are for executing Operation Guidelines for Central Emergency Operation Center, Article 16, and Operation Plan for Marine Casualty Prevention and Protection, Part IV, Chapter 4, Section 2. To monitor the rescue situation on-site and the support needs, so as to monitor the rescue situation and the needs of supporting resources on-site, strengthen the coordination and liaison between the central and local governments, as well as the allocation of supporting mechanism. This shall effectively consolidate rescue resources and assist local governments in the relief effort. As such, these regulations are thus formulated.

II. Timing of activation

In the event of a marine casualty, to assist local governments, the Ministry of Transportation and Communications or Central Emergency Operation Center shall designate personnel to coordinate and assist in the rescue effort. After seeking the approval of the incident commander of Central Emergency Operation Center, the forward coordination post of the Central Emergency Operation Center (hereafter, the forward coordination post) or substation (branch), and the leading authority shall be designated.

III. Venue for establishing forward coordination post

In principles, the forward coordination post shall be established in maritime affair centers where the Maritime and Port Bureau designates the operation site for marine casualty rescue. Depending on the situation of the disaster, the municipal and county (city) governments, and the pertinent agencies (affiliated institutions) may also be requested to provide a location that meets the following criteria to establish the forward command post of

regional emergency operation center (hereafter, the forward command post) or other appropriate location. The coordinator shall evaluate the needs of the marine casualty and establish the forward coordination post after obtaining the approval of the incident commander of the Central Emergency Operation Center.

- (I) Avoid setting up at indoor or outdoor location that may be subject to secondary disasters.
- (II) The space can accommodate at least 30 persons and has water and electricity supply.
- (III) The traffic of the location shall be convenient for coordination and liaison with the regional emergency operation center.

IV. Chief coordinator and deputy chief coordinator

- (I) The forward coordination post shall establish one chief coordinator position to oversee the response measures of the forward coordination post, and two to three deputy chief coordinators to assist the chief coordinator in undertaking the response measures of the forward coordination post.
- (II) The incident commander of the Central Emergency Operation Center shall designate personnel of the appropriate rank to assume the aforementioned positions. If underwater rescue is required, one of the deputy chief coordinators shall be a personnel with the appropriate rank from the Ministry of National Defense (vice team leader of the support allocation team).

V. Assignments

The forward coordination post shall be under the purview of the Central Emergency Operation Center to coordinate the supporting of response measures and other matters. The undertaking of the forward coordination post is as follows:

- (I) Receive requests from the regional emergency operation center and evaluate the supporting content and volume of the requests.
- (II) Monitor the contact information, attendance (report to work) of the supporting units.
- (III) Where necessary, survey the disaster site.
- (IV) Coordinate the opinions of the supporting and supported units.
- (V) Undertake other matters instructed by the Central Emergency Operation Center.

VI. Grouping

- (I) Where necessary, the incident commander of the Central Emergency or the chief coordinator of the forward coordination post shall activate functional grouping to divide the stationing personnel in the forward coordination post, or further designate other authorities (units) to send stationing personnel to assume the leading or assisting authorities (units) on a flexible manner; the leading authorities (units) of different functional groupings, where necessary, shall seek the approval of the incident commander of the operation center or the chief coordinator before informing other authorities (units) to designate personnel to join the forward coordination post.
- (II) The number of stationing personnel in different functional groupings of the forward coordination post are as per Attachment 2. The leading authorities (units) of various functional groupings shall at least designate one personnel of ninth grade (or comparable to the nine level ranking) and above, whilst the assisting authorities (units) shall at least designate one stationing aide to execute assignments stipulated by Operation Guidelines for Central Emergency Operation Center, Article 13, and the following operation:

1. Aides and staff team: The Ministry of Transportation and Communications and Maritime and Port Bureau shall take charge.
 - (1) Monitor the overall response measures, analyze and evaluate the situation of the disaster and provide contingent plan for decision making on response measures.
 - (2) Undertake matters related to press releases.
 - (3) Serve as the liaison channel for the forward coordination post, disaster site and local governments to promptly communicate the central government's response policy or on-site situation and regional needs for disaster rescue.
 - (4) Arrange for officials of minister level or higher to survey the disaster site.
2. Support allocation team: The team is led by the Ministry of National Defense, and participated by the Ministry of the Interior, Coast Guard Administration, Fisheries Agency and Ministry of Transportation and Communications. Monitor and follow up on the delivery time, location and progress of the allocation of manpower, machineries and other resources. It shall also undertake other pertinent allocation of resources and support.
3. Search and rescue team: The team is led by the Ocean Affairs Council and Coast Guard Administration, and participated by the Ministry of National Defense, Ministry of the Interior.
 - (1) Undertake the search, rescue, allocation of emergency medical care and provision of support and assistance.
 - (2) Collect the statistics on casualties.
4. Medical team: Led by the Ministry of Health and Welfare. Monitor the patient admission of emergency care responsibility hospitals, locations of

shelters established, accommodation and number of victims taken in. Where necessary, assistance is provided.

5. Pollution treatment team: The team is led by the Ocean Affairs Council and Ocean Conservation Administration to coordinate with the pertinent central authorities, local governments and other competent authorities, and undertake the emergency response measures for marine pollution as per organization hierarchy.
6. Administrative and miscellaneous team: The team is led by the Ministry of Transportation and Communications and Maritime and Port Bureau.
 - (1) Prepare, manage and maintain the environment of the forward coordination post.
 - (2) Set up the telephone, computers, fax machines, internet, e-mails and other communication method for the forward coordination post.
 - (3) Undertake procurement, accounting, reimbursement of expenses and other matters.
 - (4) Oversee the access control and arrange for the transportation of stationing personnel, allocation of vehicles and other miscellaneous matters.

VII. Operating mechanism

- (I) Where the forward coordination post convenes meetings or negotiates for significant matters, the municipal and county (city) governments or district (town hall, city hall, township) offices shall be informed to send representative to attend.
- (II) The forward coordination post shall maintain close communication with the Central Emergency Operation Center, regional emergency operation center and forward command post. As per the directive and mandate of the Central Emergency Operation Center, it shall represent operation

center to assist the municipal and county (city) governments or district (town hall, city hall, township) offices in undertaking the disaster response measures.

VIII. Logistics support

For the location, food and accommodation, transportation, water and electricity supply, administrative and miscellaneous matters, and the necessary equipment, the forward coordination post shall request the assistance from the local governments and the pertinent authorities (units). Where necessary, it shall align with the operation of the (on-site) forward command post and its expenses shall be borne by the Ministry of Transportation and Communications.

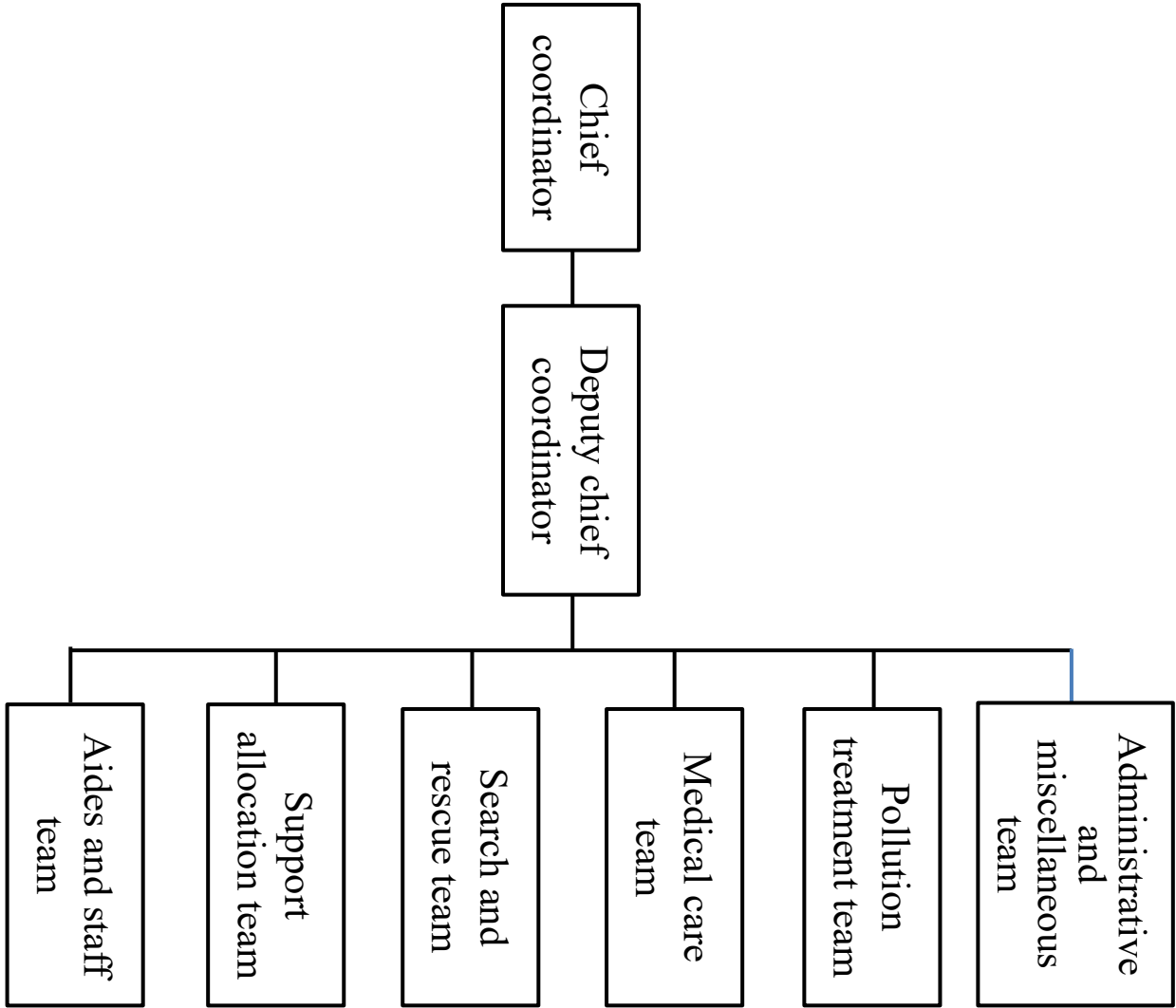
IX. Timing of dissolution

When the situation of the disaster has improved or resolved, the coordination of salvage measures has been completed or can be done via liaising by telephone and documents, the commander of the Central Emergency Operation Center may determine whether to reduce the grouping or dissolve the forward coordination post.

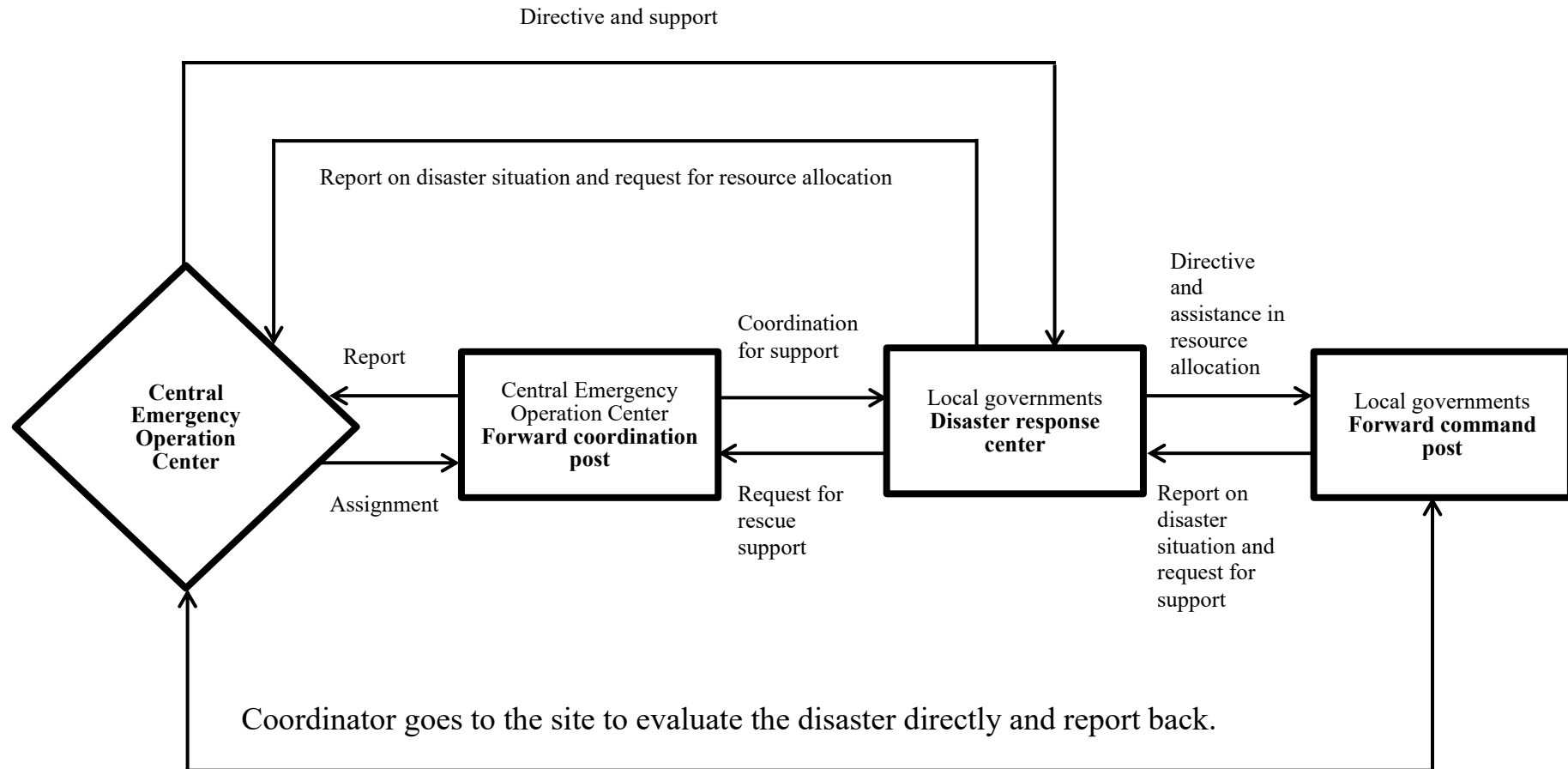
X. Reward

Personnel from various stationing authorities (units) who have performed assignments in accordance with these regulations and achieved outstanding results shall be rewarded by the stationing authorities (units) as per regulations; for personnel whose performance is unsatisfactory and gives rise to severe consequence shall be dealt with as per regulations.

Appendix 8 - Attachment 1 Organization Chart of Forward Coordination
Post of the Central Emergency Operation Center for Marine
Casualty



Appendix 8 - Attachment 2 Schematic Diagram of the Central Emergency Operation Center for Marine Casualty, Forward Coordination Post, Local Disaster Disaster Response Center and Forward Command Post



Appendix 8 - Attachment 3 Functional Grouping of Forward
Coordination Post of the Central Emergency Operation Center for
Marine Casualty

No.	Functional grouping	Leading and assisting authorities (units)				Remarks
		Leading authority (Unit)	Number of members	Assisting authorities (units)	Number of members	
1	Aides and staff team	Ministry of Transportation and Communications, Maritime and Port Bureau	2			
2	Support allocation team	Ministry of National Defense	1	One each from the Ministry of the Interior, Ocean Affairs Council, Coast Guard Administration, Ministry of Transportation and Communications, Maritime and Port Bureau, Fisheries Agency	4	
3	Search and rescue team	Ocean Affairs Council, Coast Guard Administration	1	Ministry of the Interior	1	
4	Medical care team	Ministry of Health and Welfare	1			
5	Pollution treatment team	Ocean Affairs Council and Ocean Conservation Administration	1			
6	Administrative and miscellaneous	Ministry of Transportation and	2			

	team	Communications, Maritime and Port Bureau				
	Total		8		5	

Table 1. Marine Casualty Disaster Report

(Full name of the authority) Marine Casualty Disaster Report

Reporting authority (unit)	Reporting time	Year/Month/Day/Hour/Minute		
<input type="checkbox"/> Premier of Executive Yuan (02-2393-1484) <input type="checkbox"/> Vice Premier of Executive Yuan (02-23960114) <input type="checkbox"/> Minister without Portfolio of Executive Yuan <input type="checkbox"/> Secretary-General of Executive Yuan (02-33566561) <input type="checkbox"/> Spokesperson of Executive Yuan (02-2321-7981) <input type="checkbox"/> Political Deputy Secretary-General of Executive Yuan (02-2394-8196) <input type="checkbox"/> Administrative Deputy Secretary-General of Executive Yuan (02-2321-9085) <input type="checkbox"/> Director of Department of the Interior, Health and Welfare, and Labor, Executive Yuan (02-3356-6749) <input type="checkbox"/> Director of Department of Transportation, Environment and Natural Resources, Executive Yuan (02-3356-6784) <input type="checkbox"/> Director of Department of Information Services, Executive Yuan (02-2341-4480) <input type="checkbox"/> Chief of Office of Homeland Security, Executive Yuan (02-2356-3773) <input type="checkbox"/> Director of Office of Disaster Management, Executive Yuan (02-8912-7161)	Type of report	<input type="checkbox"/> First-time report <input type="checkbox"/> Follow-up report () <input type="checkbox"/> Conclusion report		
	Reporting personnel	Unit: Position: Name:		
	Telephone number	(xx) xxxx-xxxx	Fax number	(xx) xxxx-xxxx
Type of disaster				
Disaster prevention and protection Competent authority				Telephone no.:
Time and date of occurrence	_____ (month) _____ (day), _____ (year) _____ (hour) _____ (minute)			
Location of disaster				
Incident commander	Unit: Position: Name: Telephone number:			
Reason(s) of occurrence				

Situation on-site	
Casualties/Losses (damage)	Number of deaths: Number of missing person(s): Number of injured person(s): Losses:
Item for requesting backup	<input type="checkbox"/> No <input type="checkbox"/> Yes, authorities (units): Item for backup:
Response measures	<input type="checkbox"/> No emergency response team established yet <input type="checkbox"/> Establish emergency response team (____ (month) ____ (day), ____ (year) ____ (hour) ____ (minute)) <input type="checkbox"/> Dissolve emergency response team (____ (month) ____ (day), ____ (year) ____ (hour) ____ (minute)) <input type="checkbox"/> Other measures:
Remarks	

● The report and other fax information total (____) pages.

Note: This table is provided for reporting to the Executive Yuan. Different government authorities may revise the report tables based on their requirements or combine reports for submission.

Note: The reporting authority (unit) is requested to comply with actual requirements for addition and deletion.

Note: The report shall include coordinates of the site where the marine casualty occurred, time of occurrence, number of people on board, vessel specifications (gross tonnage), and damage conditions.

Table 2. Marine Casualty Disaster Magnitude and Reporting Hierarchy

Marine Casualty Disaster Magnitude and Reporting Hierarchy	
Magnitude	Reporting hierarchy
<p>Marine casualties of Class A magnitude:</p> <p>I. The occurrence or imminent occurrence of a serious marine casualty involving vessel(s) on the seas of Taiwan with severe vessel damage and casualties or missing person(s) totaling ten (inclusive) persons or more.</p> <p>II. A leak or imminent leak of residual fuel oil of more than 700 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.</p> <p>III. A disaster that shows signs of expansion in magnitude and has foreseeable material impact on society.</p> <p>IV. A disaster with media, political, or social impact, or a disaster that the (Deputy) Minister of Economic Affairs deems necessary to disclose (e.g., death or missing person(s) caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted according to the development of the disaster.</p>	Executive Yuan
<p>Class B magnitude of marine casualties:</p> <p>I. The occurrence or imminent occurrence of a marine casualty involving vessel(s) with casualties or missing person(s) totaling four (inclusive) persons or more, and less than ten persons.</p> <p>II. A leak or imminent leak of residual fuel oil between 100 metric tonnes and 700 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.</p> <p>III. A major accident involving a vessel or an accident with media impact (e.g., no death or missing person caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted according to the development of the disaster.</p>	The Ministry of Transportation and Communications, National Fire Agency of the Ministry of the Interior, Ocean Affairs Council, Coast Guard Administration, Ocean Conservation Administration, Council of Agriculture (fishing vessels), Ministry of Economic Affairs (pertaining to marine casualties caused by offshore wind power generation).
<p>Class C magnitude of marine casualties:</p> <p>I. The occurrence or imminent occurrence of a marine casualty with no immediate casualties or danger to personnel.</p> <p>II. A leak or imminent leak of residual fuel oil below 100 metric tonnes from a vessel that subjects the seas of Taiwan to marine casualty.</p> <p>III. The occurrence of a marine casualty involving</p>	The Fire Department and pertinent competent authorities of municipal and county (city) governments for disaster response (local coast guard units, port communication centers, Maritime and Port Bureau and maritime affair centers, etc.), Bureau of Energy (pertaining to marine

vessel(s) where death or missing person(s) totaling less than three (inclusive) persons. Meanwhile, countermeasures shall be adjusted according to the development of the disaster.	casualties caused by offshore wind power generation).
<p>Note 1: In the event of severe casualties involving Mainlanders, Hong Kong and Macau residents, horizontal notification shall be performed to inform the Maritime and Port Bureau (Chinese Search and Rescue Association is tasked to contact the Mainland counterpart) and Mainland Affairs Council.</p> <p>Note 2 (Operation Guidelines for Central Emergency Operation Center):</p> <p>Marine casualty:</p> <p>1. Timing of the establishment: Marine casualties occurring in the Taipei Flight Information Region with severe damage to the vessel, more than 15 estimated casualties or missing persons, severe condition, and the Ministry of Transportation and Communications deems the establishment of the center necessary.</p> <p>2. Stationing agencies (units and organizations): Ministry of Transportation and Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Justice, Ministry of Economic Affairs, Council of Agriculture, Environmental Protection Administration, Ministry of Health and Welfare, Mainland Affairs Council, Coast Guard Administration, Ocean Conservation Administration of Ocean Affairs Council, Office of Disaster Management and Department of Information Services</p>	

Table 3. Contact Information of Pertinent Units in the Incident Command Place for Marine Casualty

Contact information of units in the incident command place for marine casualty		Telephone number	Fax number	Remarks
Duty Command Center, Coast Guard Administration, Ocean Affairs Council		(02)22399228(day, night) (02)22399235(day, night) Hotline 118, i.e. service hotline of Coast Guard Administration	(02)22399271	
Duty Command Center, Fleet Branch, Coast Guard Administration, Ocean Affairs Council		02-28053990 ext.362900 (day, night) Hotline 118, i.e. service hotline of Coast Guard Administration	(02)28051357	
Ocean Conservation Administration, Ocean Affairs Council		(07)3382057(day) 0905-169-227(day, night) 0905-165-756(day, night)	(07)3381755	
Commercial harbor	Port of Keelung	(02)24206263(day, night) (02)24206597(day, night)	(02)24254275	
	Port of Taichung	(04)26562164(day, night) (04)26642327(day, night)	(04)26572300	
	Port of Kaohsiung	(07)5622127(day, night) (07)5519018(day, night)	(07)5513953	
	Port of Hualien	(03)8344476(day, night)	(03)8333771	
	Su'ao Port	(03)9972008(day) (03)9972009(night)	(03)9951276	
	Port of Taipei	(02)26196005(day), (02)26196010(night)	(02)86301939	
	Port of Anping	(06)2925756(day), (06)2627449(night, weekend)	(06)2653064(day) (06)2620172(night)	
	Port of Penghu	(06)9272006(hotline for day time), (06)9272303ext. 2516 for day time; ext. 1501 for night time (06)9920601(hotline for night time)	(06)9273645day (06)9920602night	
	Budai Port	(05)3475267(day) (05)3479830(night)	(05)3475256	
	Port of Kinmen	(082)334483(day, night), (082)332268	(082)333760	
Industrial harbors	Fu'ao Harbor	(0836)22948(day, night), (0836)23213	(0836)22952	
	Mailiao Harbor	(05)6812533(day, night)	(05)6812534	
	Hoping Industrial Port	(03)8682078(day, night)	(03)8682080	

Contact information of units in the incident command place for marine casualty		Telephone number	Fax number	Remarks
Fishing harbors	Fisheries Agency, Council of Agriculture, Executive Yuan	(02)23835781(24 hours)	(02)23012801	
Hou-bihu Marina	Kenting National Park Headquarters, Construction and Planning Agency, Ministry of the Interior	(08)8861321(day, night)	(08)8862997	
Longdong Marina	Tourism Bureau, Ministry of Transportation and Communications (Northeast National Scenic Area)	(02)24991115	(02)24991283	
Dapeng Bay Marina	Tourism Bureau, Ministry of Transportation and Communications (Dapeng Bay Scenic Area Administration)	(08)8338100ext. 151 (day) (08)8338100ext. 125 (night, weekend)	(08)8338107 (08)8352629	
Budai Yacht Harbor	Chiayi County government	(05)3628123#383(day) (05)3479189(day, night)	(05)3621913 (05)3479189	
Maritime and Port Bureau, Ministry of Transportation and Communications		(02)89782563(day) (02)0972762608(night)	(02)27018491	

Appendix 4 Maritime Disaster Response Capacity (Northern Region)

Area	Company Name	Telephone Number	Address	Remarks
Northern Region	Port of Keelung, Taiwan International Ports Corporation, Ltd.	Control room (harbor boats) - 02-24206318 Chia-Lun, Yeh - 02-24206300	No. 18, Gangxi Street, Keelung City	12. Keelung 735, clearance vessel, 19.98 gross tonnage (GT), 450 horsepower (hp) (Port of Taipei), harbor area 13. Keelung 743, surveying ship, 12.08 GT, 261 hp, harbor area 14. Keelung 731, clearance vessel, 16.87 GT, 300 hp, harbor area 15. Keelung 733, clearance vessel, 19.66 GT, 440 hp, harbor area 16. Keelung 737, clearance vessel, 8.2 GT, 340 hp, harbor area 17. Keelung 315, floating crane, 2016 GT, 1700 hp (Port of Kaohsiung) 18. Keelung 620, mooring ship, 15.73 GT, 385 hp, harbor area 19. 2 street washer trucks 20. 1 street sweeper truck 21. 20 oil absorbent rolls 22. 53 boxes of oil absorbent pads
	Keelung Port Branch Office, TIPM Marine Corporation Ltd.	02-24206323 02-24206324 Keelung Port Branch Office 02-24206256 02-24206260 Monitoring	No. 8, Zhongshan 3rd Road, Heping Village, Zhongshan District, Keelung City	9. TIPM 12601, harbor tugboat, 342 GT, 2600 hp, coastal area 10. TIPM 12701, harbor tugboat, 331 GT, 2760 hp, coastal area 11. TIPM 12702, harbor tugboat, 331 GT, 2760 hp, coastal area 12. TIPM 13302, harbor tugboat, 336 GT, 3326 hp, coastal area

Area	Company Name	Telephone Number	Address	Remarks
		Center		<p>13. TIPM 13303, harbor tugboat, 336 GT, 3326 hp, coastal area</p> <p>14. TIPM 14301, harbor tugboat, 415 GT, 4345 hp, coastal area</p> <p>15. TIPM 14302, harbor tugboat, 415 GT, 4345 hp, coastal area</p> <p>16. TIPM 15002, harbor tugboat, 499 GT, 5000 hp, coastal area (currently docking at Port of Kaohsiung)</p>
	TIPC Taipei Port Branch Office	02-26196006 Mr. Tseng	No. 123, Shanggang Road, Bali District, New Taipei City	<p>6. 6 boxes of oil absorbent pads (100 pads per box)</p> <p>7. 1 set of boom reel including oil boom of 300 meters</p> <p>8. 1 high pressure washer (10.7 hp)</p> <p>9. 1 set of skimmer and pump</p> <p>10. Keelung 735, clearance vessel, 20 GT, 420 hp, contracted vendor provides supplies of oil absorbent pads and anti-pollution devices.</p>
	Suao Port Branch Office of Keelung Port, Taiwan International Ports Corporation, Ltd.	(03)9965121 ext. 257 Mr. Lin	No. 1, Port District, Sudong Village, Su'ao Township, Yilan County	<p>10. 10 oil absorbent rolls (38 in. x 142 in.)</p> <p>11. 65 boxes of oil absorbent pads (200 pads per box, 30 cm x 30 cm per pad)</p> <p>12. 1 weir skimmer</p> <p>13. 18 oil booms for harbor</p> <p>14. 1 oil bag</p> <p>15. 2 hand driven oil presses</p> <p>16. 1 container architecture</p> <p>17. 3 wireless transceivers</p> <p>18. 3 boom reels</p>

Area	Company Name	Telephone Number	Address	Remarks
	Suao Port Branch Office, TIPC Marine Corporation, Ltd.	039-965121 ext. 342 Mr. Liu	4F, No. 1, Port District, Sudong Village, Su'ao Township, Yilan County	6. TIPM 12501, harbor tugboat, 278 GT, 2530 hp, coastal area 7. TIPM 13202, harbor tugboat, 332 GT, 3200 hp, coastal area 8. TIPM 13301, harbor tugboat, 336 GT, 3372 hp, coastal area 9. TIPM 11701, harbor tugboat, 240 GT, 1700 hp, coastal area 10. TIPM 12603, harbor tugboat, 354 GT, 2600 hp, coastal area
	Hai Yang Marine Affairs Engineering Co., Ltd.	02-24283056	No. 34, Wenhua Road, Keelung City	4 divers
	Asia Pacific Harbor Engineering Co., Ltd.	02-24377099	2F, No. 467, Sec. 6, Zhongxiao East Road, Nangang District, Taipei City	5. Yuan Hsiang, pontoon boat, 224 GT, unpowered, coastal area 6. 15 divers 7. Avatar Triumph, tugboat, 3511 GT, 12000 hp, offshore 8. Avatar Courage, tugboat, 1709 GT, 5400 hp, offshore
	Taiwan Power Company Hsieh-ho Power Plant	02-24248111#322 Miss Huang	No. 80, Wenhua Road, Keelung City	9. 200 pieces of oil absorbent pads 10. 5 packets of oil absorbent rolls (38 in. x 145 in.) 11. 22 packets of oil absorbent booms (4 booms per packet, 8 in. x 10 in. per boom) 12. 13 oil booms (for harbors, 0.5 m x 20 m) 13. 1 weir skimmer (20 metric tons/hour) 14. 1 screw pump (3 metric tons per

Area	Company Name	Telephone Number	Address	Remarks
				hour) 15. 32 tanks (temporary storage, 200 liter each) 16. 11 barrels of oil dispersant (19 liter each)
	J & L Machine Engineering Inc.	02-24246363 02-24281231	1F, No. 173, Zhongshan 3rd Road, Keelung City	J & L No.1, tugboat, 160.38 GT, 1200 hp, harbor area
	Hsin Hai Marine Engineering Co., Ltd.	02-24691800	No. 362, Beining Rd., Zhongzheng Dist., Keelung City	9. Hsin Hai No. 2, tugboat, 86.62 GT, 1281 hp , coastal area 10. San Ching No. 6, workboat, 97 GT, 1000 hp, coastal area 11. Ming Hai No. 1, work tender, 16.32 GT, 560 hp, coastal area 12. 3 oil booms (50 m) 13. 20 boxes of oil absorbent pads 14. 8 sets of water pumps (15 hp) 15. 3 sets of screw pumps 16. 6 divers
	Kuo Jye Engineering Co., Ltd.	02-24692437 0928-272463 Mr. Tang	No. 362-1, Beining Rd., Zhongzheng Dist., Keelung City	Kuo Jye No.1, workboat, 157 GT, 1000 hp, harbor area
	Kueen Yang Enterprise Co.,Ltd	02-26195536 Tzu-Ming, Li, Chairman 0937-826536	3F, No. 123, Chun Building, Shanggang Road, Bali District, New Taipei City	6. Yu Shan No. 289, tugboat, 331 GT, 2800 hp, coastal area 7. Yu Yuan No. 101, tugboat, 303 GT, 3600 hp, coastal area 8. Yu Hong, tugboat, 337 GT, 4400 hp, coastal area 9. Yu Da No. 568, tugboat, 499 GT,

Area	Company Name	Telephone Number	Address	Remarks
				5000 hp, coastal area 10. Kueen Yang No. 601, tugboat, 446 GT, 6000 hp, coastal area
	Smit Kueen Yang Harbour Services Co., Ltd.	02-86302200 02-86301563 0918-964252 Mr. Cheng, General Manager 0933-952252 Mr. Ko, Manager	3F, No. 123, Shanggang Road, Bali District, New Taipei City	9. Sky 111, tugboat, 229 GT, 1600 hp, harbor area 10. Sky 211, tugboat, 331 GT, 2800 hp, coastal area 11. Sky 312, tugboat, 246 GT, 3200 hp, coastal area 12. Sky 401, tugboat, 398 GT, 4000 hp, coastal area 13. Sky 501, tugboat, 369 GT, 5500 hp, coastal area 14. Yu Yuan No. 101, tugboat, 303 GT, 3600 hp, coastal area 15. Yu Hong, tugboat, 337 GT, 4392 hp, coastal area 16. EC668, tugboat, 361 GT, 6000 hp, coastal area
	Chau-Hsen Enterprise Co., Ltd.	02-26051245#21 0935-977635 Mr. Chen	No. 42, Baodoucukeng, Jiabao Village, Linkou District, New Taipei City	24. Chau-Hsen No. 10, tugboat, 70.74 GT, 591 hp, coastal area 25. Chau-Hsen No. 12, tugboat, 175 GT, 1500 hp, coastal area 26. Chau-Hsen No. 1, pontoon boat, 742 GT, unpowered, coastal area 27. Chau-Hsen No. 3, pontoon boat, 549 GT, unpowered, coastal area 28. Chau-Hsen No. 7, pontoon boat, 407 GT, unpowered, coastal area

Area	Company Name	Telephone Number	Address	Remarks
				<p>29. Chau-Hsen No. 9, pontoon boat, 492 GT, unpowered, coastal area</p> <p>30. Chau-Hsen No. 16, workboat, 10.38 GT, 310 hp, coastal area</p> <p>31. Chau-Hsen No. 20, workboat, 9.44 GT, 225 hp, coastal area</p> <p>32. Chau-Hsen No. 5, floating crane, 434 GT, unpowered</p> <p>33. Chau-Hsen No. 22, tugboat, 201 GT, 1600 hp, coastal area</p> <p>34. Chau-Hsen No. 23, pontoon boat, 3314 GT, unpowered, coastal area</p> <p>35. Chau-Hsen No. 330, pontoon boat, 6638 GT, unpowered, coastal area</p> <p>36. Northeast No. 3, pontoon boat, 19.97 GT, 1050 hp, coastal area</p> <p>37. Northeast No. 3, workboat, 19.97 GT, 1050 hp, coastal area</p> <p>38. Chau-Hsen No. 26, tugboat, 298 GT, 3200 hp, coastal area</p> <p>39. Chau-Hsen No. 28, tugboat, 495 GT, 5000 hp, coastal area</p> <p>40. Chau-Hsen No. 111, tugboat, 201 GT, 1700 hp, coastal area</p> <p>41. Chau-Hsen No. 813, tugboat, 26.38 GT, 540 hp, coastal area</p> <p>42. Chau-Hsen No. 817, tugboat, 26.38 GT, 540 hp, coastal area</p> <p>43. Chau-Hsen No. 818, tugboat, 26.38 GT, 540 hp, coastal area</p> <p>44. Chau-Hsen No. 819, tugboat, 24.38 GT, 540 hp, coastal area</p> <p>45. Chau-Hsen No. 8110, tugboat, 24.38 GT, 540 hp, coastal area</p> <p>46. 5 divers</p>
	Da Chuan Chi Marine Engineering	04-26563163	No. 25, Lane. 906, Sec. 4, Lingang Road,	6. DACC No. 1, dredger barge, 498 GT, unpowered, coastal area (stationed in Port of Taichung)

Area	Company Name	Telephone Number	Address	Remarks
	Co., Ltd.		Wuqi District, Taichung City	7. DACC No. 2, barge, 138 GT, unpowered, coastal area (lay up) 8. DACC No. 7, barge, 262 GT, 900 hp, coastal area (stationed in Port of Taichung) 9. DACC No. 9, tugboat, 19.12 GT, 739 hp, coastal area (stationed in Port of Taichung) 10. DACC No. 10, workboat, 37.89 GT, 1200 hp, coastal area
	Sea & Land Integrated Corp.	02-86926001 Ext. 376	13F, No. 99, Fuxing North Road, Songshan District, Taipei City	6. Sea & Land No. 5, tugboat, 19 GT, 550 hp, coastal area 7. Sea & Land No. 6, tugboat, 357 GT, 3200 hp, coastal area 8. Sea & Land No. 7, 19 GT, 1200 hp, coastal area 9. Sea & Land No. 3, barge, 4212 GT, unpowered, coastal area 10. Sea & Land No. 8, pontoon boat, 2575 GT, unpowered, coastal area
	CPC Corporation, Taiwan	03-3835121 ext. 4220 Section Chief: Jui-Chi, Huang (Taoyuan Refinery) 0916198460	No. 1, Lane 1365, Sec. 1, Xibin Road, Neighborhood 6, Shalun Village, Dayuan District, Taoyuan City	14. Tao Yu No. 5, tugboat, 185 GT, 1500 hp, coastal area 15. Tao Yu No. 6, workboat, 554 GT, 3400 hp, coastal area 16. Tao Yu No. 3, tugboat, 471 GT, 3600 hp, coastal area (expected to be scrapped in Oct this year) 17. Tao Yu No. 9, multi-purpose workboat, 537 GT, 600 hp, coastal area (to replace Tao Yu No. 3)

Area	Company Name	Telephone Number	Address	Remarks
				18. Chu Wei, mooring ship, 18.19GT, 400 hp, harbor area 19. Chu Wei No. 2, workboat, 18.41 GT, 650 hp, harbor area 20. 22 barrels of oil dispersant 21. Oil boom (15 meters) 22. 1 U-BOOM oil boom 23. Macro belt skimmer*1 24. Slop tank with a capacity of 84.7 metric tons 25. Permanent air boom (100 meters, for river) 26. 5 divers
		03-9969341 #202 Pen-Huang Yu (Su'ao Oil Supply Center)	No. 299, Yongchun Road, Su'ao Township, Yilan County	10. Degreaser - 9200 liters 11. 2 dispersant sprayers 12. 5 sets of self-contained breathing apparatus (SCBA) 13. 8 gas detectors 14. 1 high pressure washer 15. 4 pilot lamps 16. 10 portable radios 17. Oil boom (990 meters) 18. 16 oil absorbent rolls (1 m x 80 m per roll)
		02-24976114 ext. 201 (Shen'ao Fishing Harbor)	No. 29-7, Haibin Road, Ruifang District, New Taipei City	4. Shen Ao No.3, tugboat, 389 GT, 3760 hp, coastal area 5. Shen Ao No.5, tugboat, 389 GT, 3760 hp, coastal area 6. Shen Ao No. 6, workboat, 18 GT, 410 hp, harbor area
	Chun Yang Marine Affairs	03-3256364 0932-365262	No. 2, Lane 197, Zhongpu 6th	3. Chun Yang No. 6, floating crane, 512 GT, unpowered, coastal area

Area	Company Name	Telephone Number	Address	Remarks
	Engineering Co., Ltd.	Mr. Miao	Street, Taoyuan District, Taoyuan City	4. Lash Crane, floating crane, 335 GT, unpowered, coastal area
	Keelung Rescue Association (search and rescue in water areas)	0932-161585 Kuan-Nian Peng, Secretary-General	B4-6, No. 6, Lane 8, Leli 3rd Street, Anle District, Keelung City	7. 30 divers 8. 40 diving cylinders 9. 1 equipment transport vehicle (3.5 metric tons) 10. 3 seven-seat lifeboats 11. 3 outboard motors (30 hp) 12. 1 personal water craft
	New Taipei City Search and Rescue Association	0936-813324 General Commander Chang	No. 2, Lane 131, Anxing Road, Xindian District, New Taipei City	4. 1 diver 5. 39 lifeguards 6. 2 lifeboats
	New Taipei City Police-Civil United Association	0988-539333 Executive Secretary Chan	1F, No. 115, Hougang 1st Road, Xinzhuang District, New Taipei City	3. 35 lifeguards 4. 3 rubber boats
	New Taipei City Rescue Association	02-22819595 Secretary-general Lin	1F, No. 617, Sanmin Road, Luzhou District, New Taipei City	8. Jinshan Branch: (4)6 divers (5)2 lifeboats (1 hard bottom, 1 soft bottom) (6)1 personal water craft 9. Sanzhi Branch (3)4 divers (4)1 lifeboat (1 soft bottom) 10. Tamsui Branch 2 lifeboats (1 soft bottom) 11. Bali Branch

Area	Company Name	Telephone Number	Address	Remarks
				3 lifeboats (2 hard bottom, 1 soft bottom) 12. Underwater Search and Rescue Team: (4)22 divers (5)1 underwater vehicle (6)4 lifeboats (4 soft bottom) 13. Sea Search and Rescue Team: 9 personal water crafts 14. Luzhou Branch: (2)1 rescue equipment vehicle (2) 3 lifeboats (1 hard bottom, 1 soft bottom)
	Yilan County Lanyang Rescue Association	039-680474 Mr. Chuang, President	No. 9-1, Sec. 5, Dongshan Rd., Dongshan Township, Yilan County	5. 2 personal water crafts 6. 4 lifeboats (2 hard bottom, 2 soft bottom) 7. 1 powered paraglider 8. 50 sets of diving equipment
	Yilan County Water Life Saving Association	0972-159350 Mr. Chien, President 0937-497275 Executive Secretary Tsou	2F, No. 170, Siwei Road, Luodong Township, Yilan County	4. 1 personal water craft 5. 3 lifeboats (1 hard bottom, 2 soft bottom) 6. 7 sets of diving equipment
	Kavalan Rescue Association, Yilan County	0913-333987 Executive Secretary Lin	No. 93, Dongxing Street, Toucheng Township, Yilan County	5. 1 personal water craft 6. 2 lifeboats (1 hard bottom, 1 soft bottom) 7. 15 sets of diving equipment 8. 15 divers
	Life Saving	0921-933570	No. 133,	5. 2 lifeboats

Area	Company Name	Telephone Number	Address	Remarks
	Association, Lienchiang County	Yu-Lin, Chen, Executive Secretary 0928-812974 Yu-Chiu, Weng, President	Qingshui Vil., Nangan Township, Lienchiang County	6. 4 rubber boats 7. 10 sets of diving equipment 8. 10 divers

(Central Region)

Area	Company Name	Telephone Number	Address	Remarks
Central Region	Port of Taichung, Taiwan International Ports Corporation	04-26642390 Harbor Management Department Monitoring Center	No. 2, Sec. 10, Taiwan Boulevard, Wuqi District, Taichung City	8. Oil boom (for harbor), 200 m 9. Oil boom (for river), 200 m 10.1 brush skimmer 11.60 oil absorbent rolls (48m) 12.20 packets of oil absorbent booms (3 booms per packet, 3 m per boom) 13.70 barrels of degreaser 14.2 high pressure dispersant sprayers
	TIPC Marine Corporation, Ltd.	04-26580300 04-26580821 Taichung Port Branch Office	No. 2, Beiheng 12th Rd., Qingshui Dist., Taichung City (ship repair center), No. 8 (port branch office)	1. TIPM 14403, tugboat, 473 GT, 4400 hp, coastal area. 2. TIPM 14405, tugboat, 473 GT, 4400 hp, coastal area. 3. TIPM 14501, tugboat, 442 GT, 4500 hp, coastal area. 4. TIPM 15001, tugboat, 496 GT, 5000 hp, offshore. 5. TIPM 22601, crew transfer O&M vessel, 176 GT, 3300 hp, offshore. 6. TIPM 22602, crew transfer O&M vessel, 176 GT, 3300 hp, offshore. 7. TIPM 22603 8. Chung No. 605, pontoon boat, 72 GT, unpowered, harbor area 9. Chung No. 606, pontoon boat, 72 GT, unpowered, harbor area 10. Chung No. 607, pontoon boat, 72 GT, unpowered, harbor area

Area	Company Name	Telephone Number	Address	Remarks
				<p>11. Chung No. 608, pontoon boat, 172 GT, unpowered, harbor area</p> <p>12. TIPM 51601, barge, 2066 GT, 0 hp, coastal area.</p> <p>13. TIPM 514001, barge, 13521 GT, 0 hp, international.</p>
	Great China Salvage Company	04-26561747 0913-561747 (Mr. Chu) 0937-284218 (Mr. Huang)	9F, No. 6, Lane 353, Daren Road, Wuqi District, Taichung City	<p>25. Ta Han No. 711, tugboat, 498 GT, 1600 hp, offshore.</p> <p>26. Sea Diving No. 8, tugboat, 447 GT, 3600 ps, offshore.</p> <p>27. AMO, tugboat, 499 GT, 2800 hp, offshore.</p> <p>28. Ta Han No. 6, tugboat, 19.96 GT, 1140 ps, offshore.</p> <p>29. 2 forklifts (3 tons)</p> <p>30. 4 alternators</p> <p>31. 4 direct current arc weldings</p> <p>32. 4 oxygen and acetylene steel cylinders</p> <p>33. 2 sets of self-contained breathing apparatus</p> <p>34. 1 set of four-inch water pump (gasoline)</p> <p>35. Oil boom (for harbor), 1000 m</p> <p>36. Oil boom (for river), 1000 m</p> <p>37. 30 oil absorbent rolls (48 m)</p> <p>38. 30 packets of oil absorbent booms (3 booms per packet, 3 m per boom)</p> <p>39. 20 barrels of degreaser (200 liter per barrel)</p>

Area	Company Name	Telephone Number	Address	Remarks
				40. 2 high pressure dispersant sprayers 41. 4 engineers 42. 4 divers; 4 sets of diving equipment 43. 20 oil containers (1000 m) 44. 2 container architecture 45. 10 wireless transceivers 46. 2 sets of underwater photography and video equipment (50m) 47. 2 personal water crafts 48. 3 lifeboats
	Taiwan Salvage Co., Ltd.	04-26561882	1F, No. 197, Wenxing Road, Qingshui District, Taichung City	19. EC656, tugboat, 492 GT, 5000 hp, offshore 20. EC658, tugboat, 437 GT, 5000 hp, coastal area 21. EC620, tugboat, 272 GT, 2400 hp, coastal area 22. EC626, tugboat, 328 GT, 2400 hp, coastal area 23. EC615, tender, 41.65 GT, 1050 hp, coastal area 24. EC612, tender, 41.12 GT, 1200 hp, coastal area 25. EC611, tender, 41.65 GT, 1200 hp, coastal area 26. 1 forklift (3.5 tons) 27. Oil boom (above water, 20 cm/underwater 50 cm), 1000 m 28. 60 barrels of degreaser 29. 10 divers; 10 sets of diving

Area	Company Name	Telephone Number	Address	Remarks
				<p>equipment</p> <p>30. 6 high pressure washers</p> <p>31. 100 sets of protective clothing</p> <p>32. 10 hand driven suction pumps</p> <p>33. 50 oil absorbent rolls</p> <p>34. 10 wireless transceivers</p> <p>35. 1 set of acoustimeter including electronic navigational charts</p> <p>36. 1 set of underwater photography and video equipment (50 m)</p>
	Mailiao Industrial Harbor Administration Corporation	05-6815001 Maritime Affairs Division (Mr. Liao, Division Chief)	No. 1-1, Formosa Plastics Group Industrial Zone, Mailiao Township, Yunlin County	<p>10. Mailiao No. 1243, tugboat, 277 GT, 2400 hp, coastal area</p> <p>11. Mailiao No. 1245, tugboat, 277 GT, 2400 hp, coastal area</p> <p>12. Mailiao No. 1246, tugboat, 277 GT, 2400 hp, coastal area</p> <p>13. Mailiao No. 1401, tugboat/firefighting ship, 326 GT, 4000 hp, coastal area</p> <p>14. Mailiao No. 1402, tugboat/firefighting ship, 326 GT, 4000 hp, coastal area</p> <p>15. Mailiao No. 1404, tugboat/firefighting ship, 326 GT, 4000 hp, coastal area</p> <p>16. Mailiao No. 1501, tugboat/firefighting ship, 430 GT, 5150 hp, coastal area</p> <p>17. Mailiao No. 1502, tugboat/firefighting ship, 430 GT, 5150 hp, coastal area</p> <p>18. Mailiao No. 1503,</p>

Area	Company Name	Telephone Number	Address	Remarks
				tugboat/firefighting ship, 400 GT, 5000 hp, coastal area
	Red Cross Society of the Republic of China Taiwan Province Nantou County Branch	0937-757631 Executive Secretary Chang	No. 68, Lingxing Road, Nantou City	1. 6 divers 2. 6 sets of diving equipment 3. 4 lifeboats
	Miaoli County Water Life Saving Association	0933-546576 Mr. Lin, Chief of Staff	1F, No. 88, Mingsheng Road, Neighborhood 7, Kaiyuan Village, Zhunan Township, Miaoli County	4 lifeboats, 1 personal water craft
	Diving Rescue Association R.O.C.	04-23386168 Association	No. 200, Xinxing Road, Wuri District, Taichung City	5. 2 lifeboats 6. 1 heavy-duty vehicle 7. 36 divers 8. 36 sets of diving equipment
	Taichung City Water Life Saving Association	0933-838837 (Executive Secretary Lin)	No. 36, Alley 51, Lane 36, Jiadong Road, Waipu District, Taichung City	4. 5 sets of scuba equipment 5. 4 rubber boats, 1 aluminum case 6. 4 personal water crafts
	Taichung Harbor Volunteer Fire Brigade	04-26572480	No. 159, Zhongnan 1st Road, Wuqi District, Taichung City	4 divers

Area	Company Name	Telephone Number	Address	Remarks
	Red Cross Society Yunlin County Branch Water Life Saving Squadron	05-5353128	Rm. A, 3F., No. 228, Zhuangjing Rd., Douliu City, Yunlin County	1. 10 divers 2. 1 lifeboat 3. 10 sets of diving equipment
	Kinmen County Volunteer Firefighting Team	082-324021#5604 (Fire and Rescue Planning Section, Kinmen County Fire Bureau)	No. 315, Dinglin Road, Jinning Township, Kinmen County	1. West Kinmen Rescue Team: 16 members 2. East Kinmen Rescue Team: 22 members
	Kinmen County Harbor Management	水頭： 082-329538 料羅： 082-332268	Shuitou: No. 5, Sec. 1, Xihai Road, Jincheng Township, Kinmen County Liao Luo: No. 2, Liaoluo Harbor, Jinhu Township, Kinmen County	1. Absorbent equipment: 2 boxes of oil absorbent pads (0.3 cm thickness, 100 pads per box) 2. Absorbent equipment: 2 oil absorbent rolls 3. Absorbent equipment: 10 packets of oil absorbent booms (10 booms per packet, 3 in.x 9.8 in.) 4. Absorbent equipment: 6 boxes of oil absorbent pads and pom poms 5. Absorbent equipment: 29 packets of oil absorbent booms (3 in.x 9.84 in., 10 booms per packet) 6. Degreasing equipment: 1 small scale high pressure dispersant sprayers (5 hp) 7. Protective equipment: 1 backpack breathing equipment 8. Protective equipment: 1 set of B

Area	Company Name	Telephone Number	Address	Remarks
				<p>grade protective clothing</p> <p>9. Protective equipment: 1 self-contained breathing apparatus</p> <p>10. Kao No. 103, tugboat, 327 GT, 2430 hp, coastal area.</p> <p>11. King Kang No. 1, tugboat, 198 GT, 1058 hp, coastal area</p>

(Southern Region)

Area	Company Name	Telephone Number	Address	Remarks
Southern Region	Port of Kaohsiung, Taiwan International Ports Corporation	07-5622127	No. 10, Penglai Rd., Gushan Dist., Kaohsiung City	1. TIPM 14401, tugboat, 473 GT, 4400 hp, coastal area (coastline) 2. TIPM 16401, tugboat, 498 GT, 6400 hp, coastal area (coastline) 3. TIPM 14502, tugboat, 442 GT, 4500 hp, coastal area (coastline) 4. TIPM 13401, tugboat, 344 GT, 3400 hp, coastal area (coastline) 5. TIPM 13403, tugboat, 399 GT, 3400 hp, coastal area (coastline) 6. TIPM 13403, tugboat, 344 GT, 3400 hp, coastal area (coastline) 7. TIPM 13405, tugboat, 399 GT, 3200 hp, coastal area (coastline) 8. TIPM 12601, tugboat, 342 GT, 2600 hp, coastal area (coastline) 9. TIPM 16402, tugboat, 499 GT, 6400 hp, coastal area (coastline) 10. TIPM 12605, tugboat, 392 GT, 2600 hp, coastal area (coastline) 11. TIPM 12606, tugboat, 392 GT, 2600 hp, coastal area (coastline) 12. TIPM 15401, tugboat, 498 GT, 5400 hp, coastal area (coastline) 13. TIPM 15402, tugboat, 498 GT, 5400 hp, coastal area (coastline)
	Yu Pin Shipping Co., Ltd.	Mr. Chen, Vice President 07-9686833 0985876657(Co	9F-6, No. 110, Sanduo 4th Road, Lingya District,	1. Yu Da No. 568, tugboat, 499 GT, 5000 hp, coastal area (coastline) 2. Yu Yuan No. 101, tugboat, 303 GT, 3600 hp, coastal area

Area	Company Name	Telephone Number	Address	Remarks
		mpany) Dispatch station 07-5318598	Kaohsiung City	(coastline) 3. Yu Hong, tugboat/firefight ship, 337 GT, 4400 hp, coastal area (coastline) 4. Yu Ding No. 303, tugboat, 340 GT, 3300 hp, coastal area (coastline) 5. Yu Jing, tugboat, 221 GT, 2400 hp, coastal area (coastline) 6. Yu Chia, tugboat, 360 GT, 3500 hp, coastal area (coastline) 7. Yu Ying, tugboat, 358 GT, 3500 hp, coastal area (coastline) 8. Yu Chin No. 302, tugboat, 287 GT, 3200 hp, coastal area (coastline)
	Kaohsiung Marine Shiptservice Corp.	07-3312123 Mr. Chen, Chairman	12F-2, No. 29, Haibian Road, Lingya District, Kaohsiung City	1. Kao No. 145, tugboat, 198 GT, 1800 hp, harbor area and outer harbor 2. Kao No. 112, tugboat, 278 GT, 2400 hp, coastal area (coastline) 3. KMSC 451, tugboat, 484 GT, 4500 hp, coastal area (coastline) 4. KMSC 321, tugboat, 328 GT, 3200 hp, coastal area (coastline) 5. KMSC 322, tugboat, 329 GT, 3200 hp, coastal area (coastline)
	Asian Marine Company Limited	07-2692700 0936-368236 Mr. Lu	24F-1, No. 29, Haibian Road, Lingya District, Kaohsiung City	1. Salvage Ace, ocean-going tugboat, 1714 GT, 9000 hp 2. Salvage Champion, ocean-going tugboat, 1830 GT, 10000 hp 3. Salvage Rover, multi-purpose

Area	Company Name	Telephone Number	Address	Remarks
				<p>workboat, 1879 GT, 6700 hp, offshore</p> <p>4. Salvage Rigger, multi-purpose workboat, 1879 GT, 6700 hp, offshore</p> <p>5. Salvage Worker, multi-purpose workboat, 2325 GT, 11000 hp, offshore</p> <p>6. Salvage Buccaneer, multi-purpose workboat, 1974 GT, 12000 hp, offshore</p>
	Woen Jinn Harbor Engineering Co., Ltd.	07-8022171	7F, No. 381, Hanmin Road, Xiaogang District, Kaohsiung City	<p>1. Woen Jinn No. 1, tugboat, 197 GT, 2900 hp, offshore</p> <p>2. Woen Jinn No. 8, tugboat, 48 GT, 1200 hp, coastal area (coastline)</p> <p>3. Woen Jinn No. 16, anchor handling ship, 54 GT, 1166 hp, offshore</p>
	Seagreen Marine Service Co., Ltd.	07-8136401 0937310225 Mr. Hou	No. 31, Lane 5, Xinsheng Road, Qianzhen District, Kaohsiung City	<p>1. Seagreen No. 15, tugboat, 321 GT, 1074 hp, offshore</p> <p>2. Oil withdrawal equipment</p> <p>(1) 10 double diaphragm pumps (2-inch)</p> <p>(2) 10 double diaphragm pumps (3-inch)</p> <p>(3) 10 oil pressure supply units</p> <p>(4) 8 high pressure air compressors</p> <p>(5) 12 caisson pumps</p> <p>(6) 2 centrifugal oil pumps</p> <p>(7) 2 pumps</p> <p>(8) 2 combined pumps</p>

Area	Company Name	Telephone Number	Address	Remarks
	Hwa Chi Construction Co., Ltd.	07-8125968 0911333010 Mr. Tsai	Number 558, Kaixuan 4th Road, Qianzhen District, Kaohsiung City	1. Hai Yang No. 8, tugboat, 195 GT, 2200 hp, offshore 2. Hai Yang No. 9, tugboat, 197 GT, 3200 hp, offshore
	Hang Wen Enterprises Co., Ltd.	07-8033951 Mr. Li	2F., No. 27, Hongguang St., Xiaogang District, Kaohsiung City	Harnng Woen No. 5, tugboat, 155 GT, 2600 hp, offshore
	Ming Liang Transportation and Shipping Co., Ltd.	07-8062772 0911378321 Mr. Wu	1F, No. 507, Shanming Road, Xiaogang District, Kaohsiung City	Ming Liang No. 5, tugboat, 32 GT, 700 hp, coastal area (coastline)
	An-Ton Company Limited	07-8158636	10F-1, No. 102-5, Ziqiang 2nd Road, Qianjin District, Kaohsiung City	Oil withdrawal equipment 1. 4 three-inch high pressure air compressors 2. 6 two-inch high pressure air compressors 3. 3 three-inch motor pumps

(Eastern Region)

Area	Company Name	Telephone Number	Address	Remarks
Eastern Region	TIPC Marine Corporation, Ltd. (Hualien Port Branch Office)	(03)8223821 Mr. Yen-Sheng, Chuang	No. 21, Gangkou Rd., Hualien City, Hualien County	3 harbor tug and firefighting ships (1) TIPM 13203, tugboat, 329 GT, 3155 hp, coastal area. (2) TIPM 13205, tugboat, 347 GT, 3155 hp, coastal area. (3) TIPM 14302, tugboat, 415 GT, 4300 hp, coastal area. (Supporting Port of Keelung tentatively, which is expected to end in August 2021)
	Port of Hualien Branch, Taiwan International Ports Corporation	(03)8325131# 2521 0925-882817 Kuo-Hsien, Chang, Manager	No. 66, Hai'an Road, Hualien City	3. Oil absorbent equipment (1) Roll - 14 rolls (2) Pad - 7 boxes 4. 40 oil absorbent booms 5. Degreaser (in barrel) - 675 liters 6. Oil boom (1) Permanent air boom for harbor, 200 m (2) For rivers, 275 m 7. 1 set of weir skimmer 8. Dispersant sprayer equipment (1) muscular operated system - 4 sets (2) high pressure system - 1 set 9. 1 high pressure dispersant sprayers 10. 1 high-pressure street washer truck 11. 1 forklift 12. 1 set of boom reel

Area	Company Name	Telephone Number	Address	Remarks
				13. 97 sets of D grade protective clothing 14. 1 patrolling vehicle
	Hoping Industrial Port Corporation	(03)8681477 ext. 320 Section Chief: Wen-Hui, Yu	No. 6, Hegong 5th Road, Heping Village, Xiulin Township, Hualien County	15. 3 harbor tug and firefighting ships (1) Hopin Port No. 1, tugboat, 400 GT, 3619 hp, coastal area. (2) Hopin Port No. 2, tugboat, 400 GT, 3619 hp, coastal area. (3) Hopin Port No. 3, tugboat, 400 GT, 3619 hp, coastal area. 16. Oil absorbent equipment (1) Roll - 12 packets (2) Pad - 10 boxes
	Hualien County Water Sports Association	0952-009770 Kuan-Cheng, Chang, President	No. 341, Heping Rd., Hualien City, Hualien County	52 divers/underwater operators
	Hualien County Emergency Rescue Association	(03)8543919 0928-876599 Lien-Hsun, Lo, President	No. 100, Jixing Road, Ji'an Township, Hualien	1. 10 personnel 2. 2 personal water crafts

Area	Company Name	Telephone Number	Address	Remarks
			County	
	Hualien Oil Supply Center Hualien Silo	(03)8239770# 141 0922-065835 Shih-Jung Chou	No. 2, Jilin Rd., Hualien City, Hualien County	4. 22 oil absorbent rolls (43 m - 13 rolls; 44 m - 1 roll; 80 m - 8 rolls) 5. Sawdust (absorbent equipment) - 480 kg 6. Oil boom (1) For harbors, 300 m (2) For rivers, 300 m
	CPC Hualien Oil Supply Service Center (Beipu Silo)	(03)8267573# 324 Min-Chieh, Chuang	No. 103-1, Jialin Village, Xincheng Township, Hualien County	4. Oil absorbent equipment (1) Pad - 30 pieces (2) Roll (43 m) - 11 rolls 5. Sawdust (absorbent equipment) - 6 gunny bags 6. Oil boom, 20 meters
	Santong Engineering Co., Ltd.	(03)8524888 Chun-Chi, Lai	No. 211, Jifeng Road, Ji'an Township, Hualien County	1 KATO hoist (25 tons)
	Shin Fa Marine Co., Ltd.	(089)351931 0932663492 Chih-Hsiung, Hsu	No. 79, Zhongzheng Road, Taitung City, Taitung County	Da Fa No. 1, general cargo ship, 284 GT, 520 hp, coastal area (Taitung Offshore Islands)
	Giant Dragon Co., Ltd.	(089)325811 0937390335 Tsung-Lung, Tien	No. 23, Lane 199, Chang'an Street, Taitung City, Taitung County	M/V Long Chun No. 2, general cargo ship, 332 GT, 1280 hp, coastal area (Taitung Offshore Islands)

Area	Company Name	Telephone Number	Address	Remarks
	CPC Taitung Transportation Center	(089)227820 #249、254 (089)225992 0910390208 Jung-Feng, Peng	No. 19, Sec. 2, Zhongxing Road, Taitung City	4. 17 oil absorbent rolls 5. Sawdust (absorbent equipment) - 100 kg 6. Oil boom Permanent air boom for harbor, 500 m (including Green Island, 80 m and Orchid Island, 80 m)
	Jong Shyn Shipbuilding Group, Hualien Office	0916903130 Hsu-Ming, Chu, Manager	No. 35, Gangbin, Hualien City, Hualien County	1 underwater operator
	Dong Yi Marine Engineering Co., Ltd.	(03)8534315 0937168534 Hsing-Jung, Lien	1F., No. 356, Sec. 2, Ji'an Rd., Ji'an Township, Hualien County	5. Dong Lian No. 1, mud barge, 196 GT, 1450 hp, coastal area 6. Dong Lian No. 2, mud barge, 198 GT, 1479 hp, coastal area 7. Dong Lian No. 8, tugboat, 130.67 GT, 986 hp, offshore 8. Dong Lian No. 15, work pontoon, 845 GT, unpowered, coastal area
	Hung Yang Marine Engineering Co., Ltd.	(03)8534315 0937168534 Hsing-Jung, Lien	1F, No. 34-112, Heping Village, Xiulin Township, Hualien County	4. Dong Lian No. 3, floating crane, 586 GT, unpowered, coastal area 5. Dong Lian No. 5, dredger, 983 GT, unpowered, coastal area 6. Dong Lian No. 6, workboat, 19.57 GT, 434 hp, coastal area

Maritime Disaster Response Capacity (Universities and Research Institutions)

University (Institution)	Telephone Number	Address	Remarks
Department of Fisheries Production and Management, National Kaohsiung Marine University	07-3617141ext. 3517/3533 for Prof. Liu	No. 142, Haizhuan Road, Nanzi District, Kaohsiung City 81157	<ol style="list-style-type: none"> 1. One set of EdgeTech 4120 Side Scan Sonar System (made in UK) 2. One set of Kelien 3000 Side Scan Sonar System (made in USA) 3. One set of Simrad EY60 120/200 KHz scientific echo sounder (made in Norway) 4. One set of Furuno Navnet 50/200 KHz fish finder and depth sounder (made in Japan)
National Taiwan Ocean University	02-24622192ext. 2290 Mr. Hsu	Research Vessel Affairs Center, No. 2, Beining Road, Zhongzheng District, Keelung City	<ol style="list-style-type: none"> 1. New Ocean Researcher 2, research vessel, 811 GT, 2145 hp, coastal area. 2. Equipment of university and professor, not under New Ocean Researcher 2 (1)Scuba diving equipment (2)ROV
National Taiwan University	02-33661611Hsu-Ching, Chan, Ship Affairs Superintendent	Institute of Oceanography, National Taiwan University, No. 1, Sec. 4, Roosevelt Rd., Taipei 10617	<ol style="list-style-type: none"> 1. New Ocean Researcher 1, 2155 GT, DP 1 2. Underwater detection system: Kongsberg EA 640 (12/38/200 kHz) single beam echo sounder, EK80 (38/120/200 kHz)

			<p>scientific echo sounder, Kongsberg EM 304 (1°×1°, 150°, 26-34 kHz, 10-7000 m) deep water multibeam echo sounder, Kongsberg EM 2040 (0.7°×0.7°, 140°, 200-400 kHz, 0.5-600 m) near bottom multibeam echo sounder, Edgetech 3300 (1.5-12 kHz , >5000 m) sub-bottom profiler, Kongsberg HiPAP 502 (5000 m) hydroacoustic positioning reference system, Teledyne RDI OS 75/150 kHz Acoustic Doppler Current Profilers.</p> <p>3. Launching equipment and winches: CTD Winch and A frame (8000 meter cable), deep-sea winch (10000 meter cable), warping winch, multifunctional hoist.</p> <p>4. Portable equipment of Marine Exploration Instrument Center, National Taiwan University: EdgeTech 4200 (100/400 kHz; depth rating (max.) 2000 m) Side Scan Sonar</p>
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			System, SeaSPY and G-882 magnetometer.
National Sun Yat-sen University	07-5252000ext. 5007 Mr. Chu	No. 70, Lien-hai Rd., Gushan Dist., Kaohsiung City 804	<p>1. Research vessel New Ocean Researcher 3</p> <p>(1) 811 GT</p> <p>(2) CR Class, offshore</p> <p>2. Underwater detection system:</p> <p>(1) Single beam echo sounder</p> <p>(2) Multibeam echo sounder</p> <p>(3) Sub-bottom profiler</p> <p>(4) Hydroacoustic positioning reference system</p> <p>(5) Acoustic Doppler Current Profilers</p> <p>(6) Thermosalinograph</p>
Taiwan Ocean Research Institute, National Applied Research Laboratories	07-2618688ext. 345 for Ms. Li-Wen, Wang	No. 196, Henan 2nd Rd., Qianjin Dist., Kaohsiung City 80143	<p>1. R/V Legend, 2629 GT, DP 1, CR Class, offshore.</p> <p>2. Underwater detection system: KONSBERG EA 600 single beam echo sounder, KONSBERG EM 122 + EM 2040 multibeam echo sounder, KONSBERG SBP 120 sub-bottom profiler, KONSBERG HiPAP 102 hydroacoustic positioning reference system, TRDI Ocean Surveyor 38/150 kHz Acoustic Doppler Current Profilers, SBE 21 thermosalinograph.</p>

			3. 3000-meter remotely operated vehicle (ROV).
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The International Salvage Union

Area (Country)	Company Name	Telephone Number	Address	Remarks
Taiwan	Asian Marine Co. Ltd	Tel: +886 7 2692700 / 2692701 Fax: +886 7 2692702 24 Hour Contact: Tel: +886 9 36368236 Fax: +886 7 2692702	24 F-1, 29 Hai Ban Road, Kaohsiung, Chinese Taipei	E-mail: amc@nullasian-marine.com.tw Web site: www.asian-marine.com.tw
China	China Rescue & Salvage Company	Tel: +86 10 6529 3201; +86 10 6529 2236 Fax: +86 10 6529 2235; +86 10 6529 3283 24 Hour Contact: Tel: +86 10 6529 2217 Fax: +86 10 6529 2235	11 Jianguomennei Ave., Beijing 100736, China	E-mail: chinasal@null163.com
Hong Kong	Hongkong Salvage & Towage (A division of Hong Kong United Dockyards Ltd)	Tel: +852 2612 6800 Fax: +852 2480 5894	3/F, HUD Building, 108RP Sai Tso Wan Road, Tsing Yi Island, N.T., Hong Kong, SAR	E-mail: david.murphy@nullhud.com.hk Web site: www.hktug.com

Area (Country)	Company Name	Telephone Number	Address	Remarks
Japan	Fukada Salvage & Marine Works Co., Ltd.	Tel: +81 3 5213 5581 Fax: +81 3 5213 5585 24 Hour Contact: Tel: +81 3 5213 5581 Out-of-hours mobiles: +81 90 3218 3764; +81 90 1017 7887 Fax: +81 3 5213 5585	Tatsumi Building, 3-8-7, Iidabashi, Chiyoda-ku, Tokyo 102-0072, Japan	E-mail: salvage.towage@nullfukasal.co.jp Web site: www.fukasal.co.jp
Japan	The Nippon Salvage Co. Ltd.	Tel: +81 3 5762 7172 Fax: +81 3 5762 7177 24 Hour Contact: Tel: +81 93 321 0937 Fax: +81 93 331 9466	Omori-eki Higashiguchi Building, 5-1 Ohmorikita, 1- Chome, Ohta-ku, Tokyo 143-0016, Japan	E-mail: tokyo@nullnipponsalvage.co.jp Web site: www.nipponsalvage.co.jp
South Korea	UMI Corporation	Tel: +82 31 817 7700 Fax: +82 2 6008 7614 24 Hour Contact: Tel: +82 10 7115 7325	B-802, Pangyo InnoValley, 253 Pangyo-Ro, Bundang-Gu, Seongnam-Si 463- 400, South Korea	E-mail: ten.dtlimu@mikic E-mail: cikim@nullumiltd.net Web site: www.umiltd.net
Singapore	SEMCO Salvage and Towage Pte Ltd	24 Hour Contact: Tel: +65 6265 6917 / Fax: +65 6264 4190	No. 1 Kim Seng Promenade, #06- 01A, Great World City, Singapore 237944	E-mail: posh.er@nullpaccoffshore.com.sg Web site: www.posh.com.sg

Area (Country)	Company Name	Telephone Number	Address	Remarks
re Singapore	Swire Salvage Pte Ltd	300 Beach Road, #15-01 The Concourse, Singapore 199555	300 Beach Road, #15-01 The Concourse, Singapore 199555	E-mail: ken.ellam@nullswire.com.sg E-mail: salvage@nullswire.com.sg Web site: www.swire.com.sg

**Table 5. Underwater Rescue Capacity
(Northern Region)**

Area	Name of unit	Telephone Number	Address	Remarks
Northern Region	Taipei City Fire Department	02-27297668ext. 6322 Member, Yi-Lai, Lin	No. 1, Songren Rd., Xinyi Dist., Taipei City	1. 72 divers for open water (inclusive) and above 2. 68 sets of scuba diving equipment 3. 4 sets of underwater communication equipment
	Taipei City Fire Department (NGO)	02-27297668ext. 6332 Kuan-Hao, Chen	No. 1, Songren Rd., Xinyi Dist., Taipei City	1. 2 divers for open water (inclusive) and above 2. 24 sets of scuba diving equipment 3. 5 sets of underwater communication equipment 4. 24 surface buoyancy makers
	Fire Department, New Taipei City Government	02-89519119ext. 6318 Chien-Yuan, Chen	No. 15, Sec. 2, Nanya W. Rd., Banqiao Dist., New Taipei City	1. 119 divers for open water (inclusive) and above 2. 112 sets of scuba diving equipment 3. 2 sets of underwater communication equipment
	Fire Department, New Taipei City Government (NGO)	02-89519119ext. 6224 Officer, Cheng-Ju, Yu	No. 15, Sec. 2, Nanya W. Rd., Banqiao Dist., New Taipei City	1. 104 divers for open water (inclusive) and above 2. 2 level C technicians for professional diving 3. 52 sets of underwater communication equipment 4. 1 set of underwater video equipment
	Taoyuan Fire Department	03-3379119ext	No. 280, Lixing Rd.,	1. 109 divers for open water (inclusive) and above

Area	Name of unit	Telephone Number	Address	Remarks
		. 172 Officer, Mr. Wang	Taoyuan Dist., Taoyuan City	2. 61 sets of scuba diving equipment 3. 2 sets of underwater communication equipment
	Taoyuan Fire Department (NGO)	03-3379119ext . 399 Chien-Chi, Tseng	No. 280, Lixing Rd., Taoyuan Dist., Taoyuan City	1. 53 divers for open water (inclusive) and above 2. 25 sets of scuba diving equipment 3. 1 set of underwater communication equipment 4. 1 set of underwater video recording equipment 5. 2 surface buoyancy makers
	Keelung City Fire Department	02-24302691ext. 534 Wan-Jou, Lin	No. 6, Ln. 129, Jijin 1st Rd., Anle Dist., Keelung City	1. 27 divers for open water (inclusive) and above 2. 30 sets of scuba diving equipment
	Keelung City Fire Department (NGO)	02-24302691 ext. 532 Chiung-Yun, Chang	No. 6, Ln. 129, Jijin 1st Rd., Anle Dist., Keelung City	1. 30 divers for open water (inclusive) and above 2. 20 sets of scuba diving equipment
	Yilan County Fire Bureau	03-9365027ext . 1401 Chao-Hsuan, Liu	No. 1, Jiucheng S. Rd., Yilan City, Yilan County	1. 16 divers for open water (inclusive) and above 2. 10 sets of scuba diving equipment
	Yilan County Fire	03-9365027ext . 1503	No. 1, Jiucheng S. Rd., Yilan	1. 69 divers for open water (inclusive) and above 2. 72 sets of scuba diving

Area	Name of unit	Telephone Number	Address	Remarks
	Bureau (NGO)	Wei-Chi, Hung	City, Yilan County	equipment
	Fire Bureau, Lienchiang County	0836-23799ext. 361 Officer, Chien-Ping, Tsao	No. 84-1, Qingshui Village, Nangan Township, Lienchiang County	1. 22 divers for open water (inclusive) and above 2. 22 sets of scuba diving equipment
	Keelung Harbor Fire Brigade, National Fire Agency, Ministry of the Interior	02-24220119 Wan-Tsing, Hsu	No. 117, Zhongshan 2nd Rd., Zhongshan Dist., Keelung City	1. 16 divers for open water (inclusive) and above 2. 12 sets of scuba diving equipment
	Chinese-Taipei Diving Development Association	02-27862451 Mei-Nai, Wang	No. 509, Chongyang Rd., Nangang Dist., Taipei City	1. 1 diver for open water (inclusive) and above 2. 20 sets of scuba diving equipment 3. 20 surface buoyancy makers
	Chau-Hsen Enterprise Co., Ltd.	0935-977635 Ssu-Chin, Chen	No. 42, Baodoucuoke ng, Chiabao Village, Linkou Dist., New Taipei City	1. 2 level C technicians for professional diving 2. 3 level B technicians for professional diving 3. 8 sets of scuba diving equipment 4. 8 sets of air supply diving-hose

Area	Name of unit	Telephone Number	Address	Remarks
				5. 2 sets of mixed gas surface supplied diving-hose 6. 2 sets of underwater cutter welder 7. 1 set of underwater communication equipment 8. 1 set of underwater video equipment 9. 1 set of underwater video recording equipment
	Hai Yang Marine Affairs Engineering Co., Ltd.	02-24283056 Ms. Chang	No. 34, Wenhua Road, Keelung City	1. 2 divers for open water (inclusive) and above 2. 2 level C technicians for professional diving 3. 2 persons qualified for Underwater Operations Unit 4. 5 sets of scuba diving equipment 5. 2 sets of underwater cutter welder
	Kuo Jye Engineering Co., Ltd.	02-24692437 0928-272463 Mr. Tang	No. 362-1, Beining Rd., Zhongzheng Dist., Keelung City	1. 30 divers for open water (inclusive) and above 2. 30 level C technicians for professional diving 3. 10 level B technicians for professional diving 4. 10 persons qualified for Underwater Operations Unit 5. 20 sets of scuba diving equipment 6. 3 sets of air supply diving-hose

Area	Name of unit	Telephone Number	Address	Remarks
				7. 2 sets of underwater cutter welder 8. 2 sets of underwater communication equipment 9. 1 set of underwater video equipment 10. 4 sets of underwater video recording equipment 11. 10 surface buoyancy makers
	Keelung Rescue Association	0932-161585 Secretary-General, Kuan-Nian Peng	B4-6, No. 6, Lane 8, Leli 3rd Street, Anle District, Keelung City	1. 40 divers for open water (inclusive) and above 2. 20 sets of scuba diving equipment 3. 5 sets of underwater video recording equipment
	Plus Dive Center	0919-208538 Coach, Chi-Hong, Yu	1F., No. 53, Xinxing Rd., Sanchong Dist., New Taipei City	1. 1 diver for open water (inclusive) and above 2. 1 level C technician for professional diving 3. 10 sets of scuba diving equipment
	Phoenix Diving	0984-392138	No. 210-4, Dongding Rd., Ruifang Dist., New Taipei City	1. 2 divers for open water (inclusive) and above 2. 3 sets of scuba diving equipment
	Hsin Hai Marine Engineering Co., Ltd.	02-24691800 Mr. Shen	No. 362, Beining Rd., Zhongzheng Dist., Keelung City	1. 6 level C technicians for professional diving 2. 6 sets of scuba diving equipment 3. 2 sets of air supply diving-hose

Area	Name of unit	Telephone Number	Address	Remarks
				4. 2 sets of underwater cutter welder 5. 1 set of underwater communication equipment 6. 1 set of underwater video equipment 7. 1 set of underwater video recording equipment 8. 5 surface buoyancy makers
	Yin Cheng Co., Ltd.	0928-171051 Mr. Yin-Cheng, Chi	No. 127, Fuao Village, Lienchiang County	1. 2 diving coaches for open water (inclusive) and above 2. 2 complete sets of scuba diving equipment (air bottle, buoyancy control devise (BCD), regulator set, gauges).
	Northern Branch, Coast Guard Administration, Ocean Affairs Council (Yilan County, New Taipei City, Keelung City, Taoyuan City, Hsinchu County,	0912-506063 Shi-Wei, Teng	No. 45, Sec. 1, Zhong'ai Road, Guanyin District, Taoyuan City	1. 68 divers for open water (inclusive) and above 2. 4 sets of scuba diving equipment

Area	Name of unit	Telephone Number	Address	Remarks
	Hsinchu City)			
	Kinmen-Matsu-Penghu Branch, Coast Guard Administration, Ocean Affairs Council (Lienchiang County, Kinmen County, Penghu County)	02-29406341 ext. 361208 Officer, Mr. Shang-Han, Tsai	No. 129, Xiufeng Street, Zhonghe District, New Taipei City	1. 99 divers for open water (inclusive) and above 2. 2 sets of scuba diving equipment
	Coast Guard 10th Corps, Kinmen-Matsu-Penghu Branch, Coast Guard Administration, Ocean Affairs Council (Lienchiang County)	836-23449ext. 810111, /0978396017 Officer, Kuan-Yan, Chen	No. 137, Neighborhood 9, Qingshui Village, Nangan Township, Lienchiang County	1. 8 divers for open water (inclusive) and above
	Coast Guard Administration	03-3541675	No. 36-20, Neighborhood	1. 42 divers for open water (inclusive) and above

Area	Name of unit	Telephone Number	Address	Remarks
	on Special Task Force, Ocean Affairs Council	Squad Leader, Chin-Yuan, Chen	18, Haihu Village, Luzhu Dist., Taoyuan City	2. 36 sets of scuba diving equipment
	Fleet Branch (North, Central, Southern and Eastern Sectors Flotilla, excluding Nantou County), Coast Guard Administration, Ocean Affairs Council	02-28053990ext. 362224 Officer, Chen-Yu, Chen	No. 20, Lane 63, Sec. 1, Zhongzheng Road, Tamsui District, New Taipei City	1. 471 divers for open water (inclusive) and above 2. 293 sets of scuba diving equipment 3. 52 sets of underwater communication equipment
	Team 3, R.O.C. Navy Underwater Operations Unit	02-24626061 0988007559 Lieutenant commander, Hung-Ming, Li	Keelung Heping Island, Su'ao Naval Base	1. 27 current staff of Underwater Operations Unit 2. 21 sets of scuba diving equipment 3. 3 sets of air supply diving-hose 4. 4 sets of underwater cutter welder 5. 1 set of underwater video equipment 6. 2 sets of underwater video recording equipment

Area	Name of unit	Telephone Number	Address	Remarks
				7. 209 surface buoyancy makers

(Central Region)

Area	Company Name	Telephone Number	Address	Remarks
Central Region	Fire Bureau, Hsinchu City	03-5229508ext. 505 Associate Technical Specialist, Fan-Chi, Li	No. 679, Xida Rd., North Dist., Hsinchu City	1. 16 divers for open water (inclusive) and above 2. 30 sets of scuba diving equipment
	Fire Bureau, Hsinchu City (NGO)	03-5229508ext. 507 Officer, Shu-Wei, Lin	No. 679, Xida Rd., North Dist., Hsinchu City	1. 40 divers for open water (inclusive) and above 2. 32 sets of scuba diving equipment 3. 1 set of underwater video recording equipment
	Fire Bureau, Hsinchu County Government	03-5513522ext. 411 command center/ ext. 515, Disaster Rescue Section	No. 295, Guangming 5th St., Zhubei City, Hsinchu County	1. 11 divers for open water (inclusive) and above 2. 40 sets of scuba diving equipment
	Fire Bureau, Hsinchu County Government (NGO)	03-5513522ext. 514 Tsung-Han, Yu	No. 295, Guangming 5th St., Zhubei City, Hsinchu County	19 divers for open water (inclusive) and above

Area	Company Name	Telephone Number	Address	Remarks
	Miaoli County Fire Bureau	037-558119ext. 1215 Branch Head, Chung-Han, Chou	No. 201, Sec. 4, Jingguo Rd., Miaoli City, Miaoli County	78 sets of scuba diving equipment
	Miaoli County Fire Bureau (NGO)	037-558119ext. 1612 Kai-Ming, Liu	No. 201, Sec. 4, Jingguo Rd., Miaoli City, Miaoli County	2 divers for open water (inclusive) and above
	Miaoli County Water Life Saving Association	0933-546576 Mr. Lin, Chief of Staff	1F, No. 88, Mingsheng Road, Neighborhood 7, Kaiyuan Village, Zhunan Township, Miaoli County	1. 4 lifeboats 2. 1 personal water craft
	Fire Bureau of Taichung City Government	04-23811119ext. 287 Officer, Chien-Chi, Tseng	No. 119, Wenxin S. 9th Rd., Nantun Dist., Taichung City	1. 79 divers for open water (inclusive) and above 2. 50 sets of scuba diving equipment
	Fire Bureau of Taichung City Government (NGO)	04-23811119ext. 291 Officer, Sheng-Hung, Huang	No. 119, Wenxin S. 9th Rd., Nantun Dist., Taichung City	1. 30 divers for open water (inclusive) and above 2. 30 sets of scuba diving equipment 3. 30 surface buoyancy makers

Area	Company Name	Telephone Number	Address	Remarks
	Taichung City Water Life Saving Association	0933-838837 (Executive Secretary Lin)	No. 36, Alley 51, Lane 36, Jiadong Road, Waipu District, Taichung City	1. 5 sets of scuba equipment 2. 4 rubber boats, 1 aluminum case 3. 4 personal water crafts
	DWTEK Co., Ltd.	04-35024890	No. 22, Dongying Rd., East Dist., Taichung City	1. 2 ROVs (DWTEK I-90) (1) Operating depth 500-1000 meters (2) 4.5 knots (speed) (3) Payload 27 kg (depth of 500 meters) (4) 1080P (5) Underwater position fixing
	DIVING MONKEY	04-24617019	No. 32, Ln. 362, Fuke Rd., Xitun Dist., Taichung City	1. 13 divers. 2. 25 sets of diving equipment
	Fire Bureau of Changhua County	04-7512119ext. 295 Chih-Mei, Chiang	No. 1, Zhongyang Rd., Changhua City, Changhua County	1. 29 divers for open water (inclusive) and above 2. 28 sets of scuba diving equipment 3. 3 sets of underwater communication equipment

Area	Company Name	Telephone Number	Address	Remarks
	Fire Bureau of Changhua County (NGO)	04-7512119ext. 269 Chia-Hung, Chung	No. 1, Zhongyang Rd., Changhua City, Changhua County	1. 5 divers for open water (inclusive) and above 2. 2 sets of scuba diving equipment
	Red Cross Society of the Republic of China Taiwan Province Nantou County Branch	0937-757631 Executive Secretary Chang	No. 68, Lingxing Road, Nantou City	1. 6 divers 2. 6 sets of diving equipment 3. 4 lifeboats
	Yunlin County Fire Department	05-5325707ext. 252 Officer, Ching-Yu, Tsai	No. 6, Gongyuan Rd., Douliu City, Yunlin County	1. 2 divers for open water (inclusive) and above 2. 38 sets of scuba diving equipment
	Yunlin County Fire Department (NGO)	05-5325707ext. 257 Tsing-Chen, Wu	No. 6, Gongyuan Rd., Douliu City, Yunlin County	1. 46 divers for open water (inclusive) and above 2. 21 sets of scuba diving equipment
	Red Cross Society Yunlin County Branch Water Life Saving Squadron	05-5353128	Rm. A, 3F., No. 228, Zhuangjing Rd., Douliu City, Yunlin County	1. 10 divers 2. 1 lifeboat 3. 10 sets of diving equipment

Area	Company Name	Telephone Number	Address	Remarks
	Fire Bureau of Nantou County Government	049-2226119ext. 5208 Pei-Yu, Tsai	No. 494, Minzu Rd., Nantou City, Nantou County	1. 26 divers for open water (inclusive) and above 2. 26 sets of scuba diving equipment 3.1 ROV
	Fire Bureau of Nantou County Government (NGO)	049-2226119#55502 Pei-Lun, Lai	No. 494, Minzu Rd., Nantou City, Nantou County	1. 11 divers for open water (inclusive) and above 2. 11 sets of scuba diving equipment
	Fire Bureau, Kinmen County	082-324021ext. 6201	No. 315, Dinglin Road, Jinning Township, Kinmen County	1. 75 divers for open water (inclusive) and above 2. 44 sets of scuba diving equipment
	Kinmen County Volunteer Firefighting Team	082-324021#5604 (Fire and Rescue Planning Section, Kinmen County Fire Bureau)	No. 315, Dinglin Road, Jinning Township, Kinmen County	1. West Kinmen Rescue Team: 16 members 2. East Kinmen Rescue Team: 22 members

Area	Company Name	Telephone Number	Address	Remarks
	Kinmen County Water Life Saving Association	0933-629490 Executive Secretary, Nien-Cheng, Chen	No. 4, Ln. 122, Minguan Rd., Jincheng Township, Kinmen County	1. 9 divers for open water (inclusive) and above 2. 14 sets of scuba diving equipment 3. 2 rubber boats
	Central Special Search and Rescue Team, National Fire Agency, Ministry of the Interior	049-2624999 Branch Head, Shun-Tien, Chen	No. 100, Dagong St., Zhushan Township, Nantou County	1.8 divers for open water (inclusive) and above
	Taichung Harbor Fire Brigade, National Fire Agency, Ministry of the Interior	04-26572480 #206 Section Chief, Chun-Ching, Chen	No. 159, Sec. 2, Zhongnan 1st Rd., Wuqi Dist., Taichung City	1.2 divers for open water (inclusive) and above 2. 10 sets of scuba diving equipment
	Central Branch, Coast Guard Administration, Ocean Affairs Council (Miaoli County, Taichung City, Changhua County, Yunlin County and Chiayi County)	04-26582545ext. 562207 Officer, Mr. Shang-Han, Tsai	No. 900, Zhongshe Road, Qingshui District, Taichung City	1.84 divers for open water (inclusive) and above 2. 5 sets of scuba diving equipment

Area	Company Name	Telephone Number	Address	Remarks
	Coast Guard 9th Corps, Kinmen- Matsu-Penghu Branch, Coast Guard Administration, Ocean Affairs Council	082- 336431#809111 Officer, Han- Wen, Lo	No. 200, Shangyi, Jinhu Township, Kinmen County	1.23 divers for open water (inclusive) and above

Area	Company Name	Telephone Number	Address	Remarks
	Great China Salvage Company	04-26561747	9F, No. 6, Lane 353, Sect. 2, Daren Road, Wuqi District, Taichung City	1.2 divers for open water (inclusive) and above 2.2 level C technicians for professional diving 3.3 sets of scuba diving equipment 4.2 sets of air supply diving-hose 5.1 set of decompression chamber 6.2 sets of underwater cutter welder 7.2 sets of underwater communication equipment 8.2 sets of underwater video equipment 9.3 sets of underwater video recording equipment

Area	Company Name	Telephone Number	Address	Remarks
	Taichung Harbor Volunteer Fire Brigade	04-26572480	No. 159, Zhongnan 1st Road, Wuqi District, Taichung City	4 divers
	Diving Rescue Association R.O.C.	04-23386168 Association	No. 200, Xinxing Road, Wuri District, Taichung City	1. 2 lifeboats 2. 1 heavy-duty vehicle 3. 36 divers 4. 36 sets of diving equipment

(Southern Region)

Area	Company Name	Telephone Number	Address	Remarks
Southern Region	Tainan City Government Fire Bureau	06-2975119ext. 1214 Yi-Chun, Chang	No. 898, Sec. 2, Yonghua Rd., Anping Dist., Tainan City	1. 70 divers for open water (inclusive) and above 2. 70 sets of scuba diving equipment
	Tainan City Government Fire Bureau (NGO)	06-2975119ext. 1316 Chang-Ming, Wu	No. 898, Sec. 2, Yonghua Rd., Anping Dist., Tainan City	1. 30 divers for open water (inclusive) and above 2. 31 sets of scuba diving equipment
	Fire Bureau, Kaohsiung City Government	07-8128111ext. 3057 Chih-Feng, Hsiao	No. 119, Kaixuan 4th Rd., Qianzhen Dist., Kaohsiung City	1. 231 divers for open water (inclusive) and above 2. 168 sets of scuba diving equipment
	Fire Bureau, Kaohsiung City Government (NGO)	07-8128111ext. 3061 Specialist, Yi-Ching, Wen	No. 119, Kaixuan 4th Rd., Qianzhen Dist., Kaohsiung City	1. 45 divers for open water (inclusive) and above 2. 5 level C technicians for professional diving 3. 1 level B technician for professional diving

Area	Company Name	Telephone Number	Address	Remarks
				<p>4. 1 person qualified for Underwater Operations Unit</p> <p>5. 40 sets of scuba diving equipment</p> <p>6. 3 sets of underwater video recording equipment</p> <p>7. 1 survey vessel</p> <p>8. 25 surface buoyancy makers</p>
	Penghu County Government Fire Bureau (NGO)	06-9263346ext. 6633	No. 320, Siwei Rd., Magong City, Penghu County	<p>1. 29 divers for open water (inclusive) and above</p> <p>2. 1 level C technician for professional diving</p> <p>3. 30 sets of scuba diving equipment</p>
	Fire Bureau, Chiayi City Government	05-2716660ext. 318 Yu-Chieh, Liu	No. 16, Lixue St., East Dist., Chiayi City	<p>1. 67 divers for open water (inclusive) and above</p> <p>2. 49 sets of scuba diving equipment</p>

Area	Company Name	Telephone Number	Address	Remarks
	Fire Bureau, Chiayi City Government (NGO)	0921-200962 Chien-Hung, Chen	No. 16, Lixue St., East Dist., Chiayi City	1. 18 divers for open water (inclusive) and above 2. 1 person qualified for Underwater Operations Unit 3. 11 sets of scuba diving equipment
	Chiayi County Fire Bureau	05-3620233ext. 121 Chin-An, Chen	No. 6, Sec. E., Xianghe 2nd Rd., Taibao City, Chiayi County	1. 175 divers for open water (inclusive) and above 2. 127 sets of scuba diving equipment
	Chiayi County Fire Bureau (NGO)	05-3620233ext. 121 Chin-An, Chen	No. 6, Sec. E., Xianghe 2nd Rd., Taibao City, Chiayi County	1. 42 divers for open water (inclusive) and above 2. 1 level C technician for professional diving 3. 27 sets of scuba diving equipment 4. 1 set of underwater video recording equipment

Area	Company Name	Telephone Number	Address	Remarks
	Bureau of Fire and Emergency Services, Pingtung County	08-7662911 ext. 1903, Wei-Hong, Chen ext. 1904, Chung-Tsai, Hsieh ext. 5310, Wei-Hsun, Cheng	No. 226, Zhongxiao Rd., Ho-Tsing Village, Pingtung City, Pingtung County	1. 40 divers for open water (inclusive) and above 2. 40 sets of scuba diving equipment 3. 2 sets of underwater communication equipment
	Bureau of Fire and Emergency Services, Pingtung County (NGO)	08-7662911#5302 Employee, Yao-Ting, Hsieh	No. 226, Zhongxiao Rd., Ho-Tsing Village, Pingtung City, Pingtung County	1. 89 divers for open water (inclusive) and above 2. 1 level C technician for professional diving 3. 40 sets of scuba diving equipment 4. 63 sets of air supply diving-hose 5. 3 sets of underwater video equipment 6. 9 surface buoyancy makers
	Bureau of Fire and Emergency Services, Pingtung County (Volunteer Firemen)	08-7662911ext. 5303 Rescue Section	No. 226, Zhongxiao Rd., Pingtung City,	1. 1 diver for open water (inclusive) and above 2. 1 level C

Area	Company Name	Telephone Number	Address	Remarks
				technician for professional diving 3. 4 sets of scuba diving equipment 4. 63 sets of air supply diving-hose
	Southern Special Search and Rescue Team, National Fire Agency, Ministry of the Interior	06-2891199 Branch Head, Shun-Tsung, Su	No. 1050, Jichang Rd., Rende Dist., Tainan City	1. 2 divers for open water (inclusive) and above 2. 2 sets of scuba diving equipment
	Kaohsiung Harbor Fire Brigade, National Fire Agency, Ministry of the Interior	07-5622601ext. 654 Yu-Ting, Huang	No. 25, Linhaixin Rd., Gushan Dist., Kaohsiung City	1. 17 divers for open water (inclusive) and above 2. 40 sets of scuba diving equipment 3. 4 sets of underwater communication equipment 4. 1 set of underwater video equipment 5. 20 surface buoyancy makers
	Seagreen Marine Service Co., Ltd.	07-8136401 General manager, Po-Yu, Hou	No. 35, Lane 5, Xinsheng Road, Qianzhen District, Kaohsiung City	1. 5 level C technicians for professional diving

Area	Company Name	Telephone Number	Address	Remarks
				<p>2. 3 level B technicians for professional diving</p> <p>3. 1 person qualified for Underwater Operations Unit</p> <p>4. 5 sets of scuba diving equipment</p> <p>5. 4 sets of air supply diving-hose</p> <p>6. 4 sets of mixed gas surface supplied diving-hose</p> <p>7. 4 sets of decompression chambers</p> <p>8. 8 sets of underwater cutter welder</p> <p>9. 9 sets of underwater communication equipment</p> <p>10. 4 sets of underwater video equipment</p> <p>11. 4 sets of underwater</p>

Area	Company Name	Telephone Number	Address	Remarks
				video recording equipment 12. 1 ROV 13. 5 surface buoyancy makers
	National Kaohsiung University of Science and Technology	07-3617141ext. 23886 Diving Club	No. 142, Haizhuan Road, Nanzi District, Kaohsiung City	1. 4 divers for open water (inclusive) and above 2. 2 level C technicians for professional diving 3. 2 level B technicians for professional diving 4. 20 sets of scuba diving equipment 5. 2 sets of air supply diving-hose 6. 2 sets of mixed gas surface supplied diving-hose 7. 1 set of decompression chamber 8. 1 set of diving bell 9. 3 sets of

Area	Company Name	Telephone Number	Address	Remarks
				underwater communication equipment 10. 1 set of underwater video equipment 11. 25 surface buoyancy makers
	Chiayi Scuba Divers Association	05-2911944 Hsiao-Chieh, Li	No. 9, Jiang'an St., West Dist., Chiayi City	1. 15 divers for open water (inclusive) and above
	Tainan Scuba Divers Association	06-2229886/ 0915-259991 Mr. Li	2F., No. 70, Nanhua St., West Central Dist., Tainan City	1. 5 divers for open water (inclusive) and above
	Kaohsiung Scuba Divers Association	0921225325 Chien-Fung, Huang	No. 282, Baotai Rd., Fengshan Dist., Kaohsiung City	1. 10 divers for open water (inclusive) and above 2. 5 sets of scuba diving equipment 3. 3 sets of underwater video recording equipment 4. 10 surface buoyancy makers
	Chao Kuo Construction Co., Ltd.	0937-498221 / 06-9219888	2F., No. 439, Xinsheng Road,	1. 1 ROV

Area	Company Name	Telephone Number	Address	Remarks
	(Chao Kuo Marine Engineering)		Magong City, Penghu County	
	Penghu Scuba Divers Association	06-9271345	No. 7-1, Yulong Rd., Magong City, Penghu County	1. 20 divers for open water (inclusive) and above 2. 30 sets of scuba diving equipment 3. 30 sets of air supply diving-hose 4. 20 sets of mixed gas surface supplied diving-hose 5. 2 sets of underwater video recording equipment 6. 20 surface buoyancy makers
	Southern Branch, Coast Guard Administration, Ocean Affairs Council (Tainan City, Kaohsiung City, Pingtung County)	07-6986011ext. 762203 Specialist, Cho-Jen, Li	No. 1, Zhengyuan Rd., Qieding Dist., Kaohsiung City	1. 73 divers for open water (inclusive) and above 2. 6 sets of scuba diving equipment
	Coast Guard 7th Corps, Kinmen-Matsu-Penghu Branch, Coast Guard	06-9219388 ext. 807111 Officers, Wei-Chieh, Chang,	No. 1-30, Shuangtougua, Xingren Village,	1. 68 divers for open water (inclusive) and above

Area	Company Name	Telephone Number	Address	Remarks
	Administration, Ocean Affairs Council (Penghu County)	Chia-Yu, Tien, Ling-Hui, Tsai	Magong City, Penghu County	2. 2 sets of scuba diving equipment
	Taiwan International Ports Corporation/Port of Kaohsiung	07-5219000ext. 3535 / 07-5622269 Engineer, Po-Yi, Lin Manager, Chien-Ho, Chen	No. 1, Penglai 2nd Road, Gushan District, Kaohsiung City	1. 2 level C technicians for professional diving 2. 2 sets of scuba diving equipment 3. 2 sets of air supply diving-hose 4. 1 survey vessel 5. 2 surface buoyancy makers
	R.O.C. Navy Underwater Operations Unit (Corps, Team 1, Underwater Demolition Team, Deep Sea Team)	07-5871023 0958102874 Lieutenant, Wei-Hsu, Yu	Tsoying Naval Base	1. 75 current staff of Underwater Operations Unit 2. 63 sets of scuba diving equipment 3. 5 sets of air supply diving-hose 4. 2 sets of mixed gas surface supplied diving-hose 5. 2 sets of decompression chambers 6. 2 sets of diving bells

Area	Company Name	Telephone Number	Address	Remarks
				<p>7. 3 sets of underwater cutter welder</p> <p>8. 4 sets of underwater communication equipment</p> <p>9. 4 sets of underwater video equipment</p> <p>10. 2 sets of underwater video recording equipment</p> <p>11. 210 surface buoyancy makers</p>
	Team 2, R.O.C. Navy Underwater Operations Unit	06-9210176 0988622625 Lieutenant Commander, Chia-Yi Lin	Magong Naval Base	<p>1. 16 current staff of Underwater Operations Unit</p> <p>2. 12 sets of scuba diving equipment</p> <p>3. 3 sets of air supply diving-hose</p> <p>4. 2 sets of underwater cutter welder</p> <p>5. 2 sets of underwater communication equipment</p> <p>6. 3 sets of</p>

Area	Company Name	Telephone Number	Address	Remarks
				underwater video recording equipment 7. 77 surface buoyancy makers

(Eastern Region)

Area	Company Name	Telephone Number	Address	Remarks
Eastern Region	Hualien County Fire Department	03-8462119ext. 4707 Yuan-Ming, Tsai	No. 842, Sec. 3, Zhongyang Rd., Hualien City, Hualien County	1. 25 divers for open water (inclusive) and above 2. 22 sets of scuba diving equipment
	Hualien County Fire Department (NGO)	03-8462119ext. 4707 Yuan-Ming, Tsai	No. 842, Sec. 3, Zhongyang Rd., Hualien City, Hualien County	1. 5 divers for open water (inclusive) and above 2. 7 Level C technicians for professional diving 3. 25 sets of scuba diving equipment
	Taitung County Fire Department (NGO)	089-3221125ext. 1386 Officer, Chung-Shun, Tseng	No. 100, Sec. 2, Siwei Rd., Taitung City, Taitung County	1. 6 divers for open water (inclusive) and above, and 5 assistant coaches 2. 6 sets of scuba diving equipment 3. 2 sets of underwater communication equipment (communication rope) 4. 1 surface buoyancy maker 5. 2 rubber boats 6. 3 personal water crafts

Area	Company Name	Telephone Number	Address	Remarks
	Eastern Special Search and Rescue Team, National Fire Agency, Ministry of the Interior	089-229119 Branch Head, Pei-Yao, Tsai	No. 525, Ln. 401, Sec. 3, Zhongxing Rd., Taitung City, Taitung County	1. 1 diver for open water (inclusive) and above
	Hualien Special Search and Rescue Team, National Fire Agency, Ministry of the Interior	038-267119 Squad Leader, Li-Chia, Chang	No. 1, Huaxing St., Xincheng Township, Hualien County	1. 1 diver for open water (inclusive) and above
	Hualien Harbor Fire Brigade, National Fire Agency, Ministry of the Interior	03-8235119 、 0988-810219 Cheng-Ju, Hsu	No. 25, Gangkou Rd., Hualien City	1. 4 divers for open water (inclusive) and above 2. 8 sets of scuba diving equipment 3. 1 set of underwater communication equipment
	Hualien Scuba Divers Association	0919-288000 Chairperson, Wen-Cheng, Chu	No. 169, Fuyu 2nd St., Hualien City, Hualien County	1. 20 divers for open water (inclusive) and above 2. 30 sets of scuba diving equipment 3. 4 sets of underwater communication equipment 4. 6 sets of underwater video recording equipment

Area	Company Name	Telephone Number	Address	Remarks
	Hung Yang Marine Engineering Co., Ltd.	03-8534315 , 0937-168534 Hsing-Jung, Lien	No. 397, Sec. 2, Ji'an Rd., Ji'an Township, Hualien County	1. 1 level C technician for professional diving 2. 2 sets of scuba diving equipment
	Taitung Underwater Federation	0980-057107 Chairperson, Yu-Hou, Cheng	No. 1, Ln. 7, Sec. 3, Siwei Rd., Taitung City	1. 6 divers for open water (inclusive) and above 2. 6 sets of scuba diving equipment 3. 2 sets of underwater video recording equipment 4. 1 surface buoyancy maker
	Eastern Branch, Coast Guard Administration (Hualien County, Taitung County)	089- 224311#86120 9 Po-Hung, Bai	No. 546, Sec. 2, Xing'an Rd., Taitung City, Taitung County	1. 75 divers for open water (inclusive) and above 2. 10 sets of scuba diving equipment

Table 6. Time of Establishment and Incident Commander of Local Disaster Response Centers of Different Levels for Land Traffic Accident, Marine Casualty, Aviation Incident

No.	County/City	Timing of the establishment	Commander	Remarks
1	Keelung City	<p>Land traffic accident:</p> <p>In the event of one of the following criteria occurring, the department of transportation shall deem the establishment of the center necessary:</p> <p>(1) More than 15 estimated casualties or missing persons, severe condition, an expanding magnitude of disaster in need of immediate rescue.</p> <p>(2) Major traffic facilities suffer severe damage, thus causing a traffic disruption.</p>	<p>Mayor</p> <p>Representative: Deputy mayor</p>	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact:</p> <p>Engineering Section of Department of Transportation, Yan-Chih, Kuo 24223153</p>
		<p>Marine casualty:</p> <p>Marine casualties occurring in the jurisdictional sea of the city with severe damage to the vessel, more than 15 estimated casualties or missing persons, severe condition,</p>		<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact:</p> <p>Public Transportation Division, Department of Transportation, Liang-Hui, Cheng 24258245#296</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		and the department of transportation deems the establishment of the center necessary.		<u>Telephone no. for reporting marine casualty:</u> (Working hours): 24238660 (Non-working hours): 0910281762 Fax no. for reporting marine casualty:24260013
		Marine casualty: Aviation accidents with more than 15 estimated casualties or missing persons, severe condition, and the department of transportation deems the establishment of the center necessary.		
2	Taipei City	Land traffic accident: Land traffic accidents occurring within the city area with more than 15 estimated casualties and missing persons or major traffic facilities suffering severe damage, thus causing a traffic disruption, stranded victims in need of immediate rescue and the department of transportation deems the establishment of the	For the establishment of city disaster response center (level one), the mayor shall assume the position of commander. Three deputy mayors shall assume the position of deputy commanders. Where the commander is absent or before arriving in the site, the line of succession is as follows:	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Form completed by: Traffic Regulation Division, Department of Transportation, Yu-Ting, Ho 02-27256865 <u>Telephone no. for reporting marine casualty:</u> (Working hours): 02-2727-4168 #8531 (Non-working hours): 0937288370 Fax no. for reporting marine casualty:02-27591809

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>center necessary. In the event of emergency disaster, the commissioner or commissioner of the fire department may verbally report to the mayor to establish the center.</p> <p>Marine casualty: Major marine casualties occurring within the jurisdictional sea of the city with more than 15 estimated casualties and missing persons or severe damage to the vessel, stranded victims in need of immediate rescue and the department of transportation deems the establishment of the center necessary. In the event of emergency disaster, the commissioner or commissioner of the fire department may verbally report to the mayor to establish the</p>	<p>secretary-general, deputy secretary-general, director-general of fire department.</p> <p>Establishing rotation of stationing commander: The position shall be assumed by three deputy mayors, secretary-general and three deputy secretary-generals.</p>	

No.	County/City	Timing of the establishment	Commander	Remarks
		center. Marine casualty: Aviation accidents occurring within the administration area of the city, with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster in need of immediate rescue, and the department of transportation deems the establishment of the center necessary. In the event of emergency disaster, the commissioner or commissioner of the fire department may verbally report to the mayor to establish the center.		
3	New Taipei City	Land traffic accident: Land traffic accidents occurring within the city area with more than 15 estimated casualties and	The position of incident commander shall be assumed by the mayor, whilst the positions of	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Response center:

No.	County/City	Timing of the establishment	Commander	Remarks
		missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption, stranded victims in need of immediate rescue, and the department of transportation of the city government deems the establishment of the center necessary.	deputy incident commanders shall be assumed by 3 deputy mayors and secretary-general. The position of executive secretary shall be assumed by the director of competent authority overseeing disaster relief matters.	02-89535599#9 Director General of Department of Transportation: 29603456#6975 Form completed by: Traffic Safety Section of Department of Transportation, Po-Hui, Lin 29603456#6832 <u>Telephone no. for reporting marine casualty:</u> (Working hours): Disaster response center: 02-89535599#9 Technical Specialist of department of transportation, Po-Hui, Lin: 02-29603456#6832 (Non-working hours): Disaster response center: 02-89535599#9 Technical Specialist of department of transportation, Po-Hui, Lin: 0917956126 Fax no. for reporting marine casualty: 8953-2311
		Marine casualty: Marine casualties occurring within the jurisdictional sea of the city with more than 15 estimated casualties and missing persons or severe damage to the vessel, thus causing stranded victims in need of immediate rescue and the department of transportation of the city government deems the establishment of the center necessary.		
		Marine casualty: Aviation accidents occurring		

No.	County/City	Timing of the establishment	Commander	Remarks
		within the administration area of the city, with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster in need of immediate rescue, and the department of transportation of the city government deems the establishment of the center necessary.		
4	Taoyuan City	<p>Land traffic accident: One of the following conditions is present in the land traffic accident occurring within the city area, and the department of transportation of the city government deems the establishment of the center necessary:</p> <p>1. More than 15 estimated casualties or missing persons, and an expanding magnitude of disaster in need of immediate rescue.</p>	In accordance with Operation Guidelines for Emergency Operation Center of Taoyuan City, Article 4 and 5, the commander of the city disaster response center shall be assumed by the mayor. The line of succession is as follows: secretary-general, deputy secretary-general, director-general	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact: Associate Technical Specialist of Department of Transportation, Pei-Yu, Cho Office number: 03-3322101#6868 Office fax number: 03-3393986 Mobile number: 0911-017400 E-mail: 0027656@mail.tycg.gov.tw</p> <p><u>Telephone no. for reporting marine casualty:</u> (Working hours): 03-3322101#6868 (Non-working hours): 0911-017400(mobile number of</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		2. Major traffic facilities suffer severe damage, thus causing a traffic disruption.	of department of transportation.	person in charge) Fax no. for reporting marine casualty:03-3393986
		Marine casualty: Marine casualties occurring at the coastal area of the city with severe damage to the vessel, more than 15 estimated casualties or missing persons, severe condition, and the department of transportation deems the establishment of the center necessary.		
		Marine casualty: Accidents resulted from an aircraft crashing in the city area with more than 15 estimated casualties or missing persons and the conditions are severe, the department of transportation deems the establishment of the center necessary.		
5	Hsinchu County	Land traffic accident: 1. More than 15 estimated	1. County Mayor, Wen-Ke, Yang (commander).	For contact information of the commander, please see the emergency contact list for disaster prevention and

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>casualties or missing persons, severe condition, and an expanding magnitude of disaster in need of immediate rescue.</p> <p>2. Major traffic facilities suffer severe damage, thus causing a traffic disruption.</p> <p>3. Established as per directive of the Central Emergency Operation Center or county mayor.</p>	<p>2. Deputy Mayor, Chien-Hsien, Chen (Deputy Commander).</p> <p>3. Secretary-general, Chih-Yuan, Chen (Deputy Commander).</p>	<p>protection of Executive Yuan.</p> <p>Form completed by: Traffic Planning Division, Transportation and Tourism Department, Chi, Huang 03-5518101#2796 <u>Telephone no. for reporting marine casualty:</u>03-5518101#2796 (Working hours): am08:00 (Non-working hours): pm17:00 Fax no. for reporting marine casualty:6563903</p>
		<p>Marine casualty:</p> <p>1. Marine casualties occurring in the jurisdictional sea of the county or within the fishing harbor area, with severe damage to the vessel, more than 15 estimated casualties or missing persons and the conditions are severe.</p> <p>2. Established as per directive of the Central Emergency Operation Center or county mayor.</p>		
		<p>Marine casualty:</p> <p>1. Civil aviation accidents</p>		

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>occurring within the area of the county (without the airport area) with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster and severe condition.</p> <p>2. Established as per directive of the Central Emergency Operation Center or county mayor.</p>		
6	Hsinchu City	<p>Land traffic accident: Land traffic accidents with more than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption and stranded victims in need of immediate rescue.</p> <p>Marine casualty: For marine casualties involving vessels with more than 15 estimated casualties and missing persons, an expanding magnitude of disaster in need of immediate</p>	<p>The position of commander shall be assumed by the mayor (Chih-Chien, Lin), where he shall oversee the overall management of the response measures of the center. Two positions of deputy commanders shall be assumed by both the deputy mayor (Hui-Hong, Shen) and secretary-general</p>	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact: Technical Specialist of department of transportation, Cheng-Ping, Wang Office number: 03-5216121#463 Office fax number: 03-5220240 Mobile number: 0955-520969 E-mail: 01399@ems.hccg.gov.tw <u>Telephone no. for reporting marine casualty:</u> (Working hours): 03-5216121 ext. 463 (Non-working hours): 0955-520969 Fax no. for reporting marine casualty:03-5220240</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>rescue, after reporting to the mayor to establish level one disaster response center, pertinent units shall be notified to designate personnel to join the center and undertake various emergency response measures</p> <p>Marine casualty: For aviation accidents with more than 15 estimated casualties and missing persons, an expanding magnitude of disaster in need of immediate rescue, after reporting to the mayor to establish level one disaster response center, pertinent units shall be notified to designate personnel to join the center and undertake various emergency response measures</p>	<p>(Chang-Hsien, Chen), where they shall assist the commander in the undertaking of response measures. The position of executive secretary shall be assumed by the director of competent authority overseeing disaster relief matters (Director-General of Fire Department, Shi-Kung, Li).</p>	
7	Miaoli County	<p>Land traffic accident: More than 19 estimated casualties or missing persons, severe condition, an expanding</p>	County mayor	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Form completed by:</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		magnitude of disaster in need of immediate rescue, or major traffic facilities suffering severe damage, thus causing a traffic disruption.		Maintenance Office, Chieh-Yen, Liu 037-559450 <u>Telephone no. for reporting marine casualty: 037-559450</u> (Working hours): 0800 (Non-working hours): 1700 Fax no. for reporting marine casualty: 037-371997
		Marine casualty: Malfunction, foundering, grounding, collision, fire, explosion, or other extraordinary incidents involving ships, cargo, seafarers, or passengers.		
		Marine casualty: Aviation accidents with casualties and missing persons or damaged property, or damaged or missing aircraft.		
8	Taichung City	Land traffic accident: Land traffic accidents with more than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption, and the department of transportation of the city	Commander: Mayor, Shioh-Yen, Lu Deputy Commander: Deputy Mayors, Kuo-Jung, Huang, Jung-Da, Linghu, Chih-Chin, Chen Executive Director:	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Form completed by: Transportation Section, Department of Transportation, Shao-Che, Huang (04)22289111#60512 <u>Telephone no. for reporting marine casualty:</u>

No.	County/City	Timing of the establishment	Commander	Remarks
		government deems the establishment of the center necessary.	Secretary-general, Chung-Tien, Huang Executive Secretary: Director of Department of Transportation, Shao- Fu, Yeh	(Working hours): (04)23811119 (Non-working hours): (04)23811119 Fax no. for reporting marine casualty:(04)23820675
		Marine casualty: Marine casualty involving vessels with more than 15 estimated casualties or missing persons, and the department of transportation deems the establishment of the center necessary.		
		Marine casualty: Aviation accidents with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster, and the department of transportation deems the establishment of the center necessary.		
9	Nantou County Government	Land traffic accident: More than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic	Commander: Mayor, Ming-Chen, Lin Deputy Commander: Deputy Mayor, Cheng- Sheng, Chen	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Executive Director: Police Commissioner, Mu-Shu, Chen (049)2222423

No.	County/City	Timing of the establishment	Commander	Remarks
		disruption and stranded victims in need of immediate rescue.	Deputy Commander: Secretary-general, Jui-Chih, Hung	0987-357978 Chief of Civil Defense Control Center, Teng-Yao, Yang (049)2222067
		Marine casualty: Nil.		<u>Telephone no. for reporting marine casualty:</u> (Working hours): 049-2222106#1631 (department of tourism) (Non-working hours): 0921-917773 (Section Chief, Business Section) Fax no. for reporting marine casualty:049-2201777
		Marine casualty: Aviation accidents with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster and victims in need of immediate rescue.		For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Executive Director: Director-general of Fire Department, Cong-Chih, Lin (049)2226119#5000 0928-385001 Section Chief of Disaster Management Section, Teng-Wang, Chang (049)2226119#6100
10	Changhua County	Land traffic accident: 1. More than 15 estimated casualties or missing persons within the jurisdiction, severe	County mayor	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Contact:

No.	County/City	Timing of the establishment	Commander	Remarks
		condition, an expanding magnitude of disaster and victims in need of immediate rescue. 2. Major transportation facilities (including roads, bridges) within the county suffer severe damage, causing traffic disruption.		Kuan-Cheh, Lin, Department of Public Works, Changhua County Telephone no.: 04-7532123
		Marine casualty: Marine casualties occurring within the jurisdictional sea with severe damage to the vessel, more than 15 estimated casualties or missing persons, severe condition, and the fire department deems the establishment of the center necessary.		
		Marine casualty: Aviation accidents occurring within the jurisdiction with more than 15 estimated casualties or missing persons, severe condition, and the fire department deems the establishment of the center		For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Contact: Yi-Ju, Chen (Fire Bureau of Changhua County) Telephone no.: 04-7512119#274 <u>Telephone no. for reporting marine casualty:</u> (Working hours): 04-7512119#9 (Non-working hours): 04-7512119#9 Fax no. for reporting marine casualty:04-7631914

No.	County/City	Timing of the establishment	Commander	Remarks
		necessary.		
11	Yunlin County	Land traffic accident: More than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption, stranded victims in need of immediate rescue, the traffic not expected to be recovered within the next 24 hours and the department of engineering deems the establishment of the center necessary.	Mayor, Li-Shan, Chang	Contact information of Mayor: Automatic telephone no.: 5522000 ext. 2010 Mobile number: 0933-127535 Form completed by: Department of Public Works, Ya-Hui, Chang 05-5522368 <u>Telephone no. for reporting marine casualty:</u> (Working hours): 05-5522368 (Non-working hours): 05-5325707 (Yunlin County Fire Department) Fax no. for reporting marine casualty:05-5342919
		Marine casualty: Marine casualties occurring at the coastal area, with more than 15 estimated casualties and missing persons, an expanding magnitude of disaster in need of immediate rescue and the department of engineering deems the establishment of the center necessary.		

No.	County/City	Timing of the establishment	Commander	Remarks
		Marine casualty: Aviation accidents with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster, victims in need of immediate rescue, and the department of engineering deems the establishment of the center necessary.		
12	Chiayi County	Land traffic accident: 1. Established as per directive of commander (county mayor) or Central Emergency Operation Center. 2. Level 2 establishment: Land traffic accidents (road system under the purview of city government) with more than 10 estimated casualties and missing persons or major traffic facilities suffering severe damage, thus causing a traffic disruption and stranded victims	County mayor Construction Department shall inform chiefs of pertinent functional grouping units of the response center to designate personnel in joining the operation and undertake various emergency response measures; depending on the magnitude and situation of the disaster, the Construction	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Contact: Chiayi County Government Construction Department, Wei-Chia, Huang Telephone no.: 05-3622712#6608 <u>Telephone no. for reporting marine casualty:</u> (Working hours): 05-3622712 #6608 (Non-working hours): 0975-487021 Fax no. for reporting marine casualty:05-3621846

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>in need of immediate rescue.</p> <p>3. Level 1 establishment: Land traffic accidents (road system under the purview of city government) with more than 15 estimated casualties and missing persons or major traffic facilities suffering severe damage, thus causing a traffic disruption, stranded victims in need of immediate rescue and the traffic not expected to be recovered within the next 24 hours.</p>	<p>Department shall, subsequent to the consent of the commander, inform other authorities or units to designate to join the operation of the center.</p>	
		<p>Marine casualty:</p> <p>1. Established as per directive of commander (county mayor), Ocean Affairs Council (Coast Guard Administration) or Central Emergency Operation Center.</p> <p>2. Level 2 establishment: Marine casualties involving vessels</p>		

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>breaking down, grounding, tipping or foundering that occurs on the jurisdictional sea with more than 10 estimated casualties or missing persons, an expanding magnitude of disaster and victims in need of immediate rescue.</p> <p>3. Level 1 establishment: Marine casualties involving vessels breaking down, grounding, tipping or foundering that occurs on the jurisdictional sea with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster and victims in need of immediate rescue.</p>		
		<p>Marine casualty:</p> <p>1. Established as per directive of commander (county mayor) or Central Emergency Operation Center.</p>		

No.	County/City	Timing of the establishment	Commander	Remarks																				
		2. Aviation accidents occurring within the land area of Chiayi County and without the Chiayi Airport, with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster and victims in need of immediate rescue.																						
13	Chiayi City	Land traffic accident: More than 15 estimated casualties, missing and stranded persons, or an expanding magnitude of disaster in need of immediate rescue.	Mayor	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact:</p> <table> <tr> <th>Unit</th><th>Position</th><th>Name</th><th>Office no.</th><th>Mobile no.</th></tr> <tr> <td>Police Department</td><td>Police Commissioner</td><td>Shu-Te, Chang</td><td>05-2220626</td><td>0953202987</td></tr> <tr> <td>Police Department</td><td>Deputy Police Commissioner</td><td>Ching-Hua, Chen</td><td>05-2220623</td><td>0930299308</td></tr> <tr> <td>Traffic Police Bridgade</td><td>Supervisor</td><td>Cheng-Che, Chien</td><td>05-2250727</td><td>0938879238</td></tr> </table>	Unit	Position	Name	Office no.	Mobile no.	Police Department	Police Commissioner	Shu-Te, Chang	05-2220626	0953202987	Police Department	Deputy Police Commissioner	Ching-Hua, Chen	05-2220623	0930299308	Traffic Police Bridgade	Supervisor	Cheng-Che, Chien	05-2250727	0938879238
Unit	Position	Name	Office no.	Mobile no.																				
Police Department	Police Commissioner	Shu-Te, Chang	05-2220626	0953202987																				
Police Department	Deputy Police Commissioner	Ching-Hua, Chen	05-2220623	0930299308																				
Traffic Police Bridgade	Supervisor	Cheng-Che, Chien	05-2250727	0938879238																				

No.	County/City	Timing of the establishment	Commander	Remarks				
				Traffic Police Bridgade	Police Officer	Yi-Hsiung, Sun	05-2250727	0985084671
				Civil Defense Center, Police Department	Section Chief	Jung-Chung, Lu	05-2220803	0928777868
				Civil Defense Center, Police Department	Senior Clerk	Chun-Nan, Wu	05-2220803	0921554688
				Nil.				
					Name	Telephone number	Mobile no.	
				Director of Transportation Department	Chun-Chien, Cheng	05-2294586	0963072810	
				Deputy Director of Transportation Department	Chih-Fang, Luo	05-2294587	0933679160	
				Section Chief of	Chiung-Hsi,	05-2294581#210	0955952286	
		Marine casualty: Nil.						
		Marine casualty: More than 15 estimated casualties, missing and stranded persons, or an expanding magnitude of disaster in need of immediate rescue.						

No.	County/City	Timing of the establishment	Commander	Remarks				
				Transportation Section	Chang			
				Person in charge	Yen-Mao, Chang	05-2294581#214	0912745919	
14	Tainan City	<p>Land traffic accident: More than 15 estimated casualties or missing persons and an expanding magnitude of disaster.</p> <p>Marine casualty: Severe damage to the vessels, more than 15 estimated casualties or missing persons, severe condition, and the department of transportation deems the establishment of the center necessary and inform the city government to do so.</p> <p>Marine casualty: More than 15 estimated casualties or missing persons and the disaster is severe.</p>	Mayor	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact: Bureau of Transportation, Tainan City Government</p> <p>Director-General: Ming-Te, Wang, 06-3901199 、0928-203639.</p> <p>Section Chief of Planning Section, Hui-Chung, Chuang, 06-3901338 、0975-375029.</p> <p>Officer of Planning Section, Yu-Meng, Kuo, 06-2991111#8738 、0919-610245.</p> <p><u>Telephone no. for reporting marine casualty:</u></p> <p>(Working hours):</p> <p>Section Chief of Planning Section, Hui-Chung, Chuang, 06-3901338.</p> <p>Officer of Planning Section, Yu-Meng, Kuo, 06-2991111#8738.</p> <p>(Non-working hours):</p> <p>Section Chief of Planning Section, Hui-Chung, Chuang,</p>				

No.	County/City	Timing of the establishment	Commander	Remarks
				0975-375029. Officer of Planning Section, Yu-Meng, Kuo 0919-610245. Fax no. for reporting marine casualty:06-2953219
15	Kaohsiung City	<p>Land traffic accident: Land traffic accidents occurring within the city area, or occurring in other county or city involving the residents of the city, with more than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption, many stranded victims in need of immediate rescue and the department of transportation of the city government deems the establishment of the center necessary.</p> <p>Disasters involving metro (light rail) in operation: Major disasters involving collision of trains or derailment when the</p>	Mayor	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Form completed by: Bureau of Transportation, Chueh-Hsu, Chung 07-2299825#516</p> <p><u>Telephone no. for reporting marine casualty:</u> (Working hours): Officer of Transportation Supervision Division, Bureau of Transportation, Erh-Lian, Hsu 07-2299825#804</p> <p>(Non-working hours): Section Chief of Department of Transportation, Chih-Ching, Li 0963-599-596</p> <p>Fax no. for reporting marine casualty:07-2299865</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		metro (light rail) is in operation, with more than 15 estimated casualties and missing persons or in need of immediate rescue, and the department of transportation of the city government deems the establishment of the center necessary.		
		Marine casualty: Accidents involving ferry or cruiser occurring at the Port of Kaohsiung, or accidents involving Duck Boats, Love Boats and other sightseeing boats occurring within the jurisdictional waters of the city, with more than 15 estimated casualties or missing persons, and the department of transportation deems the establishment of the center necessary.		
		Marine casualty: Aviation accidents occurring within the jurisdiction of city, or		

No.	County/City	Timing of the establishment	Commander	Remarks
		occurring in other county or city involving the residents of the city, with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster in need of immediate rescue, and the department of transportation deems the establishment of the center necessary.		
16	Pingtung County	<p>Land traffic accident: Land traffic accidents occurring within the city area with more than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption, stranded victims in need of immediate rescue, and the department of engineering of the city government deems the establishment of the center necessary.</p> <p>Marine casualty:</p>	County mayor	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact: Fire department, Tsung-Tso, Sun08-7662911ext. 5803 <u>Telephone no. for reporting marine casualty:</u> (Working hours): Director of Transportation and Tourism Department, Kuo-Wei, Huang 08-7320415ext. 5100 Planning Section: Section Chief, Chuan-Sheng, Li 08-7320415ext. 5110 Person in charge: Yi-Hsuan, Shen 08-7320415ext. 5119 Fax number: 08-7334517</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		Severe damage to vessels, more than 15 estimated casualties or missing persons, an expanding magnitude of disaster in need of immediate rescue, and the department of tourism of the city government deems the establishment of the center necessary.		Passenger vessel (Transportation Management Section): Officer, Po-Kang, Kung 08-7320415ext. 5123 Fishing vessels: Marine and Fisheries Management Office Director, Ou-Chuan, Chen08-7320415ext. 7200 Donggang Fisheries Radio Broadcasting Station(08)8350247(priority) Pingtung County Marine and Fisheries Management Office (Fisheries Administration Division) Section chief, Po-Chen, Lin08-7320415ext. 7230 Associate Clerk, Tsai-Ting, Hsieh08-7320415ext. 7244 Fax number: 08-73231497 (Non-working hours): Director of Transportation and Tourism Department, Kuo-Wei, Huang 08-7320415ext. 5100 Planning Section: Section Chief, Chuan-Sheng, Li 08-7320415ext. 5110 Person in charge: Yi-Hsuan, Shen 08-7320415ext. 5119 Fax number: 08-7334517 Passenger vessel (Transportation Management Section): Officer, Po-Kang, Kung
		Marine casualty: More than 15 estimated casualties or missing persons, an expanding magnitude of disaster in need of immediate rescue, and the department of tourism of the city government deems the establishment of the center necessary.		

No.	County/City	Timing of the establishment	Commander	Remarks
				08-7320415ext. 5123 Fishing vessels: Marine and Fisheries Management Office Director, Ou-Chuan, Chen08-7320415ext. 7200 Donggang Fisheries Radio Broadcasting Station(08)8350247(priority) Pingtung County Marine and Fisheries Management Office (Fisheries Administration Division) Section chief, Po-Chen, Lin08-7320415ext. 7230 Associate Clerk, Tsai-Ting, Hsieh08-7320415ext. 7244 Fax number: 08-73231497
17	Yilan County	Land traffic accident: More than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption and stranded victims in need of immediate rescue. <hr/> Marine casualty: Severe damage to the vessels, more than 15 estimated casualties and missing persons, or an expanding magnitude of disaster in need of	County mayor, deputy mayor, secretary-general or director of the department of transportation shall be the representatives.	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Form completed by: Marine and Fisheries Development Office, Chia-Ching, Lin Traffic Planning Division, Transportation Department, Ching-Hui, Su 03-9251000#2252 <u>Telephone no. for reporting marine casualty:</u> (Working hours): (03)925-2257#206 (Non-working hours): 0978-055-655

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>immediate rescue.</p> <p>Marine casualty: More than 15 estimated casualties, missing persons, or an expanding magnitude of disaster in need of immediate rescue.</p>		Fax no. for reporting marine casualty:(03)931-4249
18	Hualien County	<p>Land traffic accident: More than 15 estimated casualties and missing persons, or major traffic facilities suffering severe damage, thus causing a traffic disruption and stranded victims in need of immediate rescue.</p> <p>Marine casualty: Severe damage to the vessels, more than 15 estimated casualties and missing persons, or a leak or imminent leak of residual fuel oil of more than 700 metric tonnes from a vessel, an expanding magnitude of disaster in need of immediate rescue, and it is deemed the establishment of the center</p>	<p>Commander: County mayor Three Deputy Commanders: deputy mayor, secretary-general, director-general of fire department Executive Secretary: Director-general of fire department</p>	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Form completed by: Officer of fire department, Tzu-An, Huang</p> <p><u>Telephone no. for reporting marine casualty:</u> (Working hours): (03)8462119#6202 (Non-working hours): 0908277323</p> <p>Fax no. for reporting marine casualty:(03)8575614</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		necessary. Marine casualty: Aviation accidents occurring without the Hualien Airport, with more than 15 estimated casualties or missing persons, an expanding magnitude of disaster in need of immediate rescue, and it is deemed the establishment of the center necessary.		
19	Taitung County	Land traffic accident: More than 15 (exclusive) casualties and severe condition. Subsequent to the county competent authority (department of transportation and tourism) for land traffic accident rescue deems the establishment of the center necessary and reports the disaster to the county mayor (or convener of the county disaster prevention and protection council), depending on the magnitude of disaster, the	County mayor	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Form completed by: Tourism Department, Hao-I, Tan (089)330580ext. 362 <u>Telephone no. for reporting marine casualty:</u> (Working hours): 089-330580 (Non-working hours): 0988569979 Fax no. for reporting marine casualty:089-341118

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>county mayor (or convener of the county disaster prevention and protection council) shall instruct the establishment of the county disaster response center.</p> <p>Marine casualty: More than 15 (exclusive) estimated casualties and missing persons, severe condition, and the department of marine casualty prevention and protection of the county government deems the establishment of the center necessary.</p> <p>Marine casualty: Inland aviation accidents occurring without the airport land area with more than 15 (exclusive) estimated casualties and missing persons. Subsequent to the county competent authority (department of transportation and tourism) for aircraft accident rescue deems the</p>		

No.	County/City	Timing of the establishment	Commander	Remarks
		establishment of the center necessary and reports the disaster to the county mayor (or convener of the county disaster prevention and protection council), depending on the magnitude of disaster, the county mayor (or convener of the county disaster prevention and protection council) shall instruct the establishment of the county disaster response center.		
20	Penghu County	Land traffic accident: Established under the directive of the county mayor or In the event of the occurrence of major land traffic accident (more than three deaths, ten casualties, 15 injured persons, or en route explosion, fire, leak of poisonous liquid or gas resulted from the transportation of hazardous substances)	Commander: County Mayor, Feng-Wei, Lai Deputy Commander: Deputy Mayor, Ching-Chiu, Hung Deputy Commander: Secretary-general, Chun-Tien, Lu Executive Director: Police Commissioner, Hung-Lieh, Liu Convener: Deputy Police	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Contact: Chief of Civil Defense Control Center, Chin-Li, Chen 06-9272301 、0919177380 Section Assistant, Kuan-Lin, Chen 0921578251

No.	County/City	Timing of the establishment	Commander	Remarks
			Commissioner, Neng-Chin, Dai	
		<p>Marine casualty:</p> <p>I. The occurrence or imminent occurrence of a serious marine casualty involving vessel(s) on the seas of Taiwan with severe vessel damage and casualties or missing person(s) totaling ten (inclusive) persons or more.</p> <p>II. A disaster that shows signs of expansion in magnitude and has foreseeable material impact on society.</p> <p>III. A disaster with media, political, or social impact, or a disaster that the (Deputy) Minister of Economic Affairs deems necessary to disclose (e.g., death or missing person(s) caused by a marine casualty involving a domestic vessel on domestic routes). Meanwhile, countermeasures shall be adjusted according to the development of the disaster.</p>	<p>Commander: County Mayor, Feng-Wei, Lai</p> <p>Deputy Commander: Deputy Mayor, Ching-Chiu, Hung</p> <p>Executive Director: Secretary-general, Chun-Tien, Lu</p> <p>Convener: Director of Tourism Department, Mei-Ling, Chen</p>	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact: Officer, Ching-Hui, Yan 06-9274400-245 0911311986</p> <p>Section Chief, Chen-Hsiang, Chou 06-9274400-243 0929914990</p> <p><u>Telephone no. for reporting marine casualty:</u> (Working hours): 06-9262535 (Non-working hours): 0929-914990 0911-311986</p> <p>Fax no. for reporting marine casualty: 06-9264710</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		<p>Marine casualty involving fishing vessels:</p> <p>In the event of a marine casualty involving mechanical failure of a fishing vessel, in accordance with the general procedure, the establishment of the disaster response center shall be determined by the Agriculture and Fisheries Bureau of Penghu County Government. In the event of one casualty, the level three establishment shall be undertaken, stationing in the Fire Bureau disaster response center; In the event of three casualties (inclusive), the level two establishment shall be undertaken; In the event of five casualties (inclusive), the level one establishment shall be undertaken to timely monitor and respond to the disaster.</p>	<p>Commander: County Mayor, Feng-Wei, Lai</p> <p>Deputy Commander: Deputy Mayor, Ching-Chiu, Hung</p> <p>Executive Director: Secretary-general, Chun-Tien, Lu</p> <p>Convener: Acting Director-General of Agriculture and Fisheries Bureau, Ching-Hui, Chen</p>	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Contact: Chih-Chien, Chen 0933627215 06-922620-159 Section Chief, Chuan-Wen, Chen 06-9262620-130 0963221557</p>

No.	County/City	Timing of the establishment	Commander	Remarks
		Aviation incident: Occurring without the airport area and inland within the county	Commander: County Mayor, Feng-Wei, Lai Deputy Commander: Deputy Mayor, Ching-Chiu, Hung Deputy Commander: Secretary-general, Chun-Tien, Lu Commander: Director of Penghu County Government Tourism Department, Mei-Ling, Chen Deputy Executive Director: Deputy Director of Tourism Department, Mei-Fan, Liu Deputy Commissioner of Penghu County Government Fire Bureau, Wen-Kuang, Hsu.	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Contact: Interim Specialist, Chiu-Chin, Cheng 06-9274400-243 0937391503 Section Chief, Chen-Hsiang, Chou 06-9274400-243 0929914990
		Marine casualty: Occurs on sea, at the fishing harbor area.		

No.	County/City	Timing of the establishment	Commander	Remarks
		Marine casualty: Occurs on sea, at the commercial harbor area.	For Port of Penghu, Maritime and Port Bureau (ports corporation)	
		Aircraft accident: Occurs on sea, at the naval base area.	Naval Magong Logistic Support Command.	
		Aircraft accident: Occurs on sea, without the naval base area.	Captain of Offshore Flotilla 8, Fleet Branch, Coast Guard Administration, Ocean Affairs Council	
21	Kinmen County	Land traffic accident: The county mayor shall give directives on major traffic accidents (land traffic accident with more than five estimated casualties and missing persons, severe condition, an expanding magnitude of disaster in need of immediate rescue; or major traffic facilities suffering severe damage, thus causing a traffic disruption, and the department of tourism of	County mayor	For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan. Form completed by: Officer of Transportation Section, Transportation and Tourism Department, 082-318823#62723 <u>Telephone no. for reporting marine casualty:</u> (Working hours): 082-318823#62723 (Non-working hours): 0933-872770 Fax no. for reporting marine casualty:082-328443

No.	County/City	Timing of the establishment	Commander	Remarks
		the city government deems the establishment of the center necessary).		
		Marine casualty: Marine casualties occurring in the neighboring seas of the county, within the Kinmen Domestic Commercial Harbor, fishing harbors of Kinmen, with severe damage to the vessel, more than five estimated casualties or missing persons, severe condition, and it is deemed the establishment of the center necessary.		
		Marine casualty: Aviation accidents occurring without the airport land area of the county, within the Kinmen Domestic Commercial Harbor and fishing harbors of Kinmen, with more than five estimated casualties or missing persons, and it is deemed the establishment of the		

No.	County/City	Timing of the establishment	Commander	Remarks
		center necessary.		
22	Lienchiang County	<p>Land traffic accident: Disasters causing loss of lives and severe damage to properties with more than ten estimated casualties or missing persons, severe condition in need of rescue, and the department of transportation and tourism of the city government deems the establishment of the center necessary.</p> <p>Marine casualty: In the event of marine accidents, the harbor authority or the department of transportation and tourism of the city government deems the establishment of the center necessary.</p> <p>Marine casualty: In the event of aircraft accident, the establishment of disaster response center shall be undertaken immediately.</p>	County mayor Representative: Deputy county mayor	<p>For contact information of the commander, please see the emergency contact list for disaster prevention and protection of Executive Yuan.</p> <p>Form completed by: Contract staff of Department of Transportation and Tourism, Chia-Ming, Lin 0836-22408</p> <p><u>Telephone no. for reporting marine casualty:</u> (Working hours): 0836-25125 (Non-working hours): 0836-22948 Fax no. for reporting marine casualty:0836-26539</p>

No.	County/City	Timing of the establishment	Commander	Remarks
<p>Form completed by: _____ Telephone no.: _____</p> <p>Date: _____</p>				

Figure

Figure 1. Marine Casualty Incident Emergency Reporting System

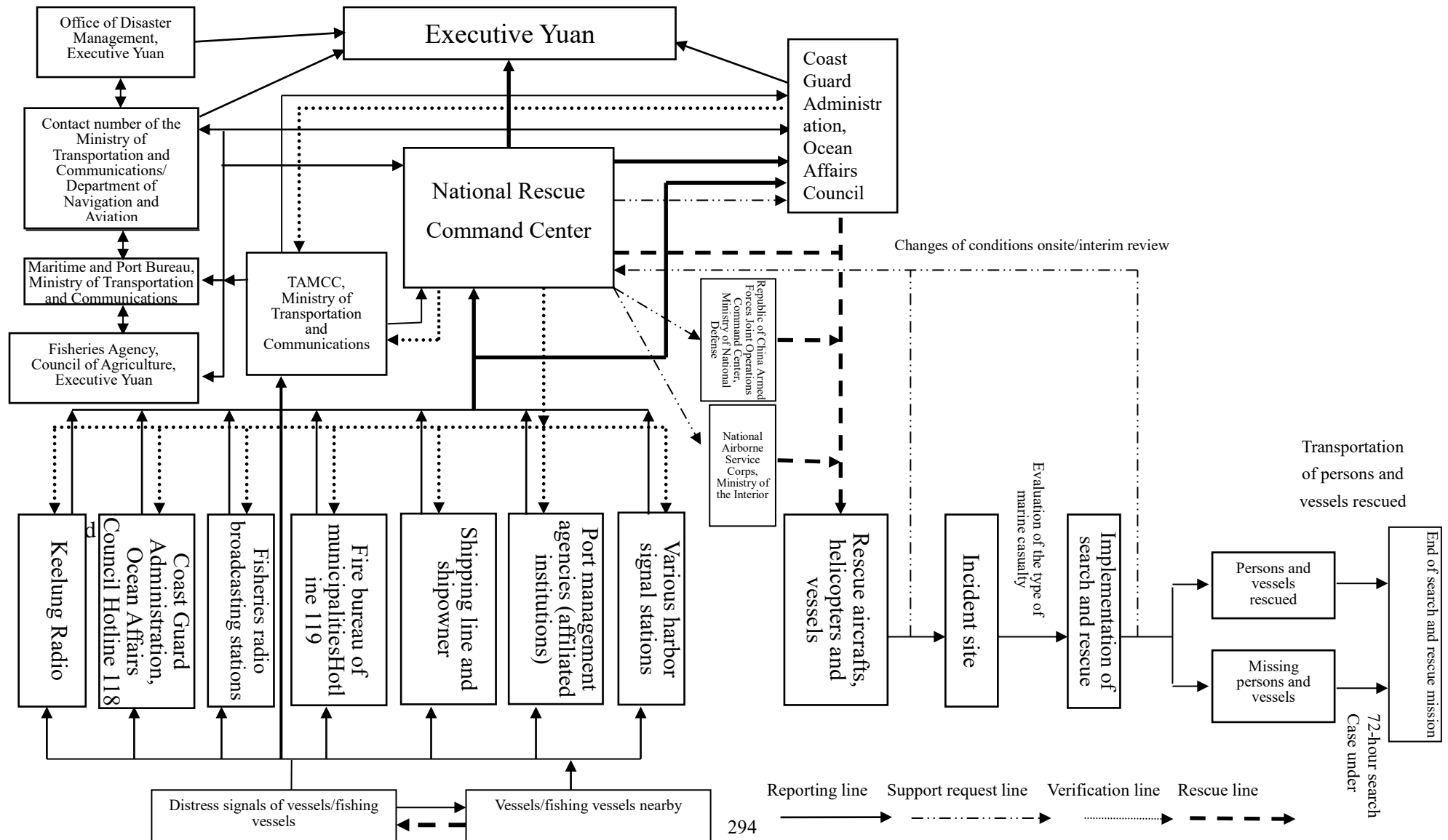
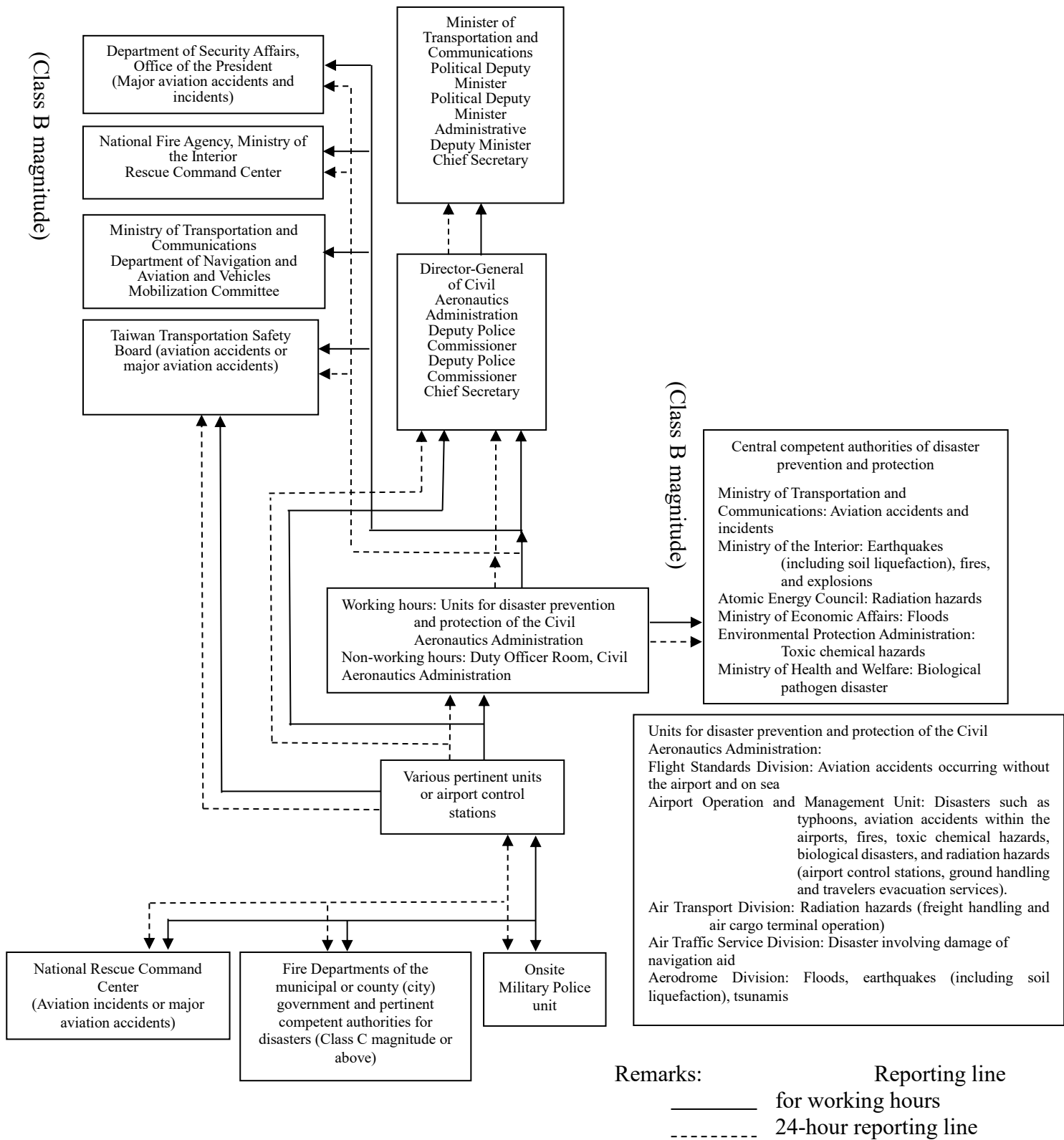


Figure 2. Procedures for Notification of Disaster and Emergency of Civil Aeronautics Administration



Note: Appendix 1 and 6(III) of the Plan have cited this figure.