

# Group 2 Operational procedures in the Event of a Disaster

## Objective

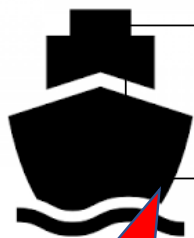
Learn how Mercy operates during disasters to identify issues with the use of ships for disaster medical treatment and the operation of hospital ships in Japan.

## Items for Consideration

- 1 . System of command in the event of a disaster
- 2 . Collaboration with other organizations
- 3 . Supply system

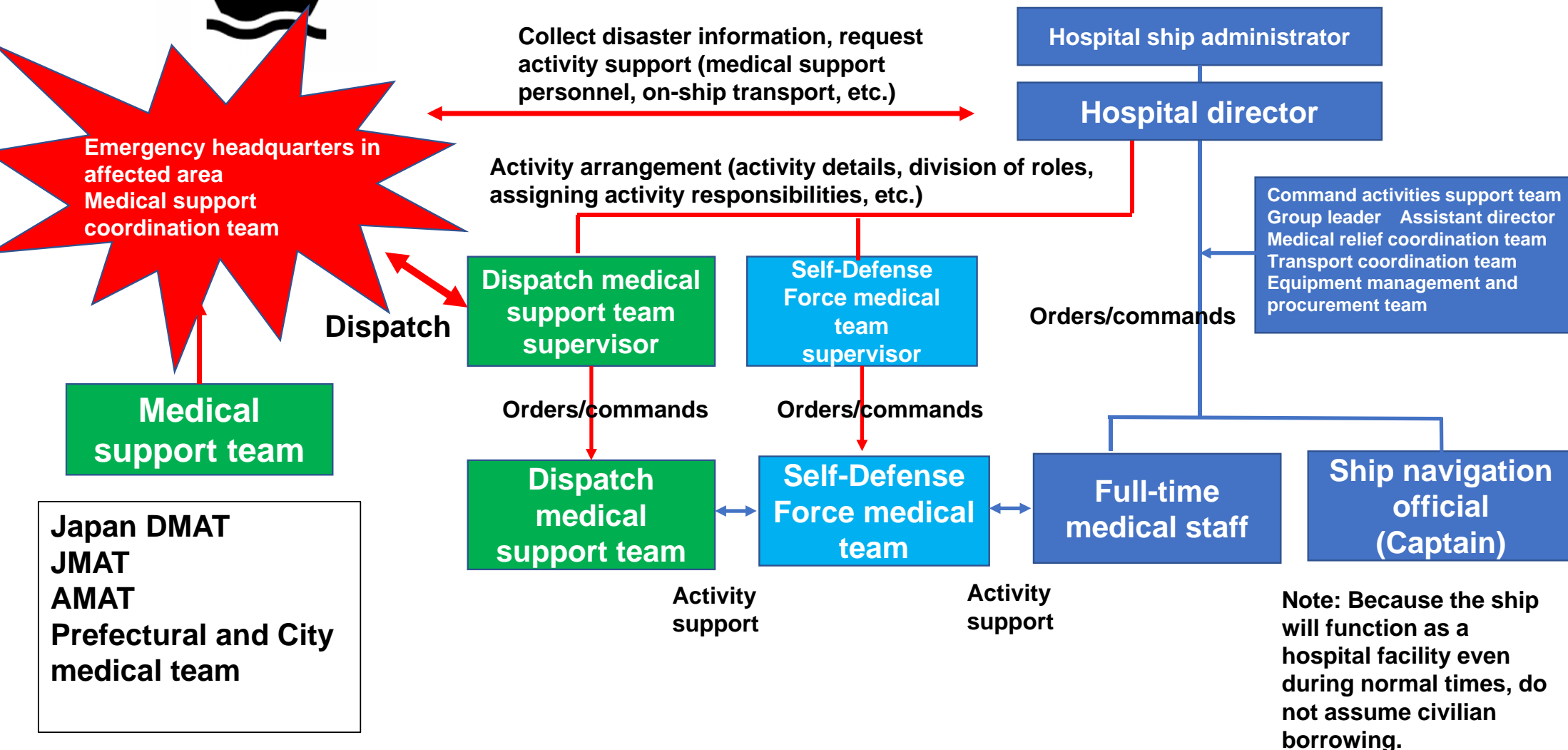
# Command system at disaster

1. Command and control system in Mercy
2. Dispatch criteria of Mercy
3. Cooperation with the disaster headquarter of the stricken area
4. Quality assurance about the medical procedure in Mercy



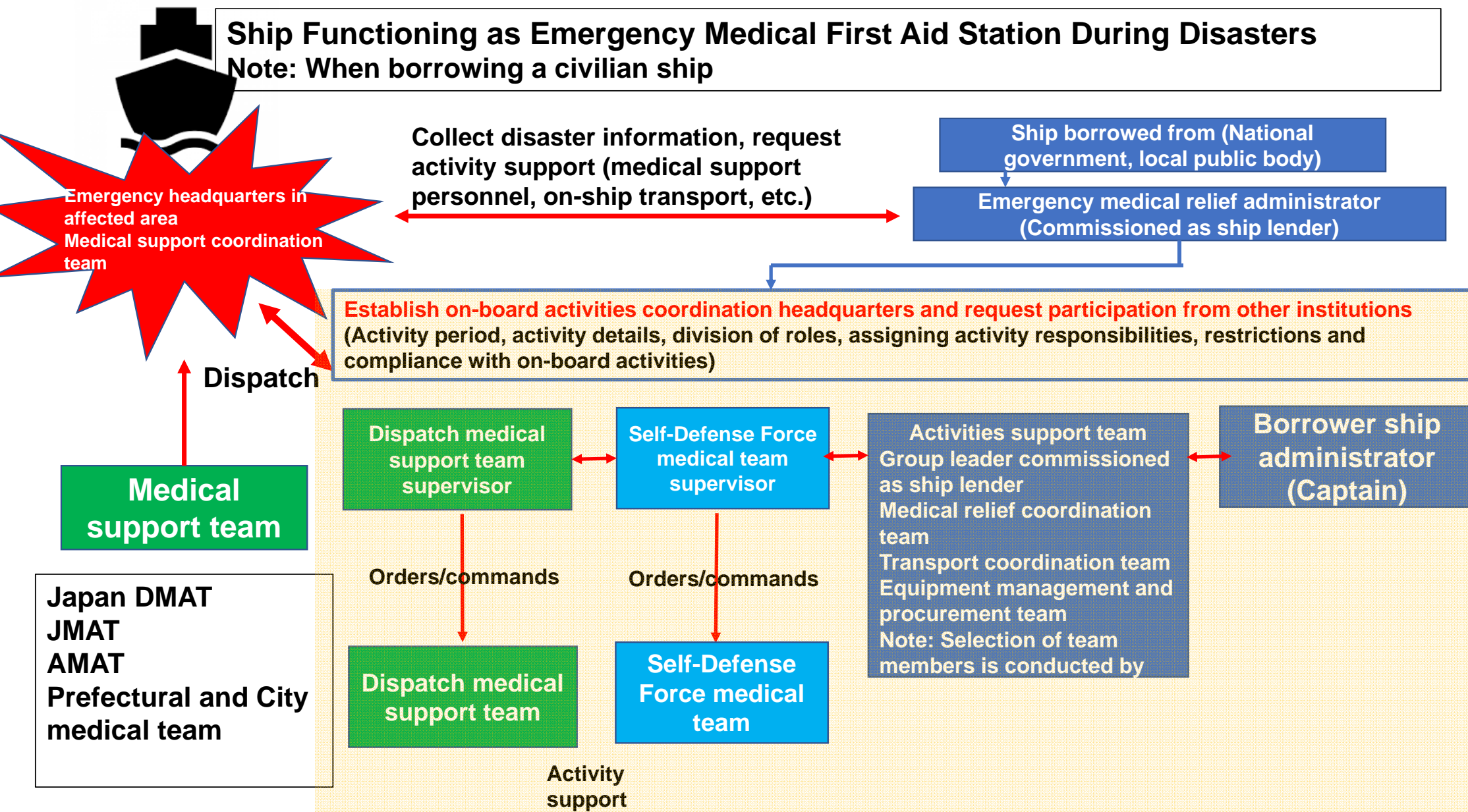
# Ship Functioning as Hospital Facility During Disasters

Note: Also used as hospital facilities during normal times



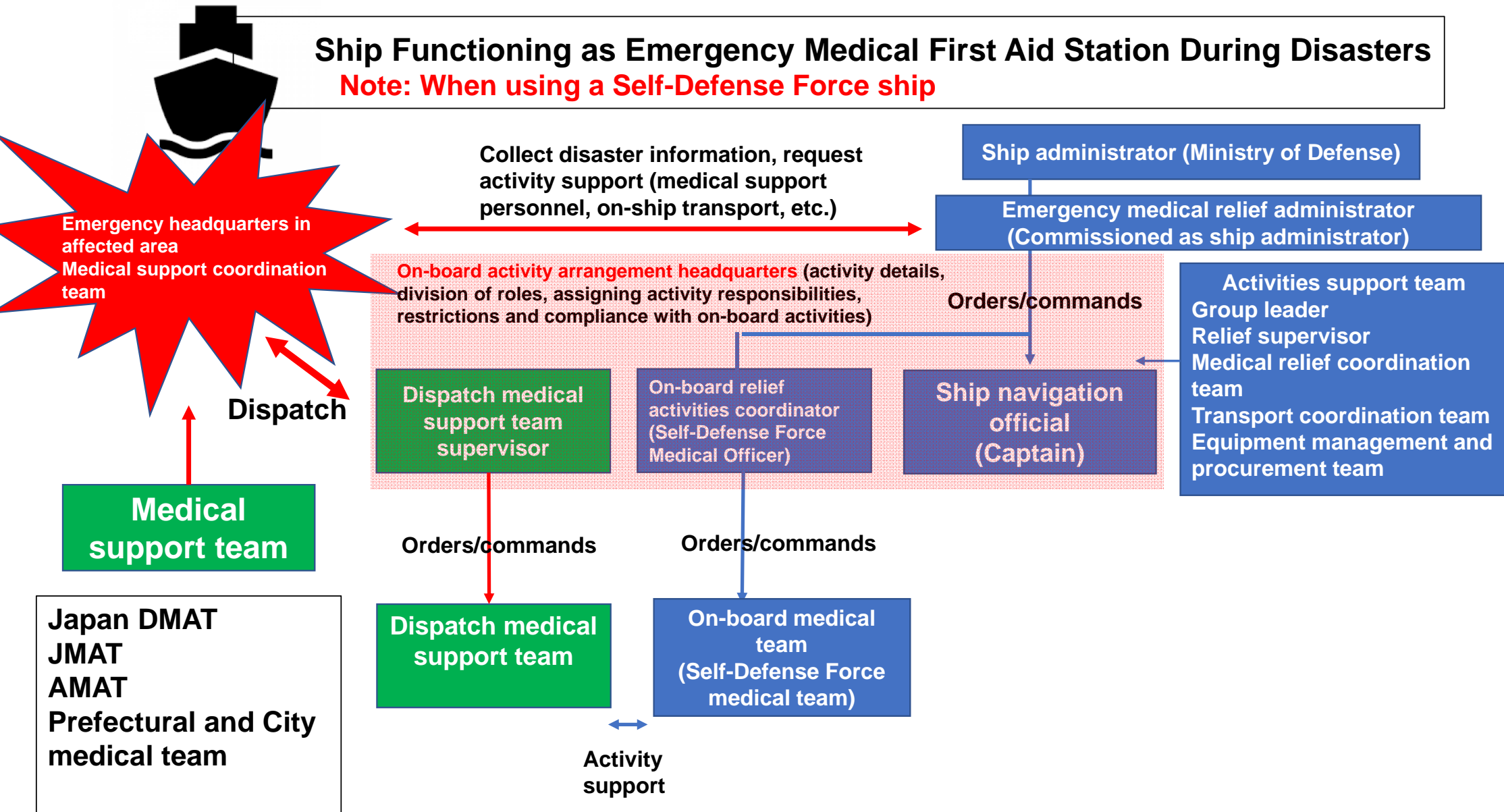
# Ship Functioning as Emergency Medical First Aid Station During Disasters

Note: When borrowing a civilian ship



# Ship Functioning as Emergency Medical First Aid Station During Disasters

**Note: When using a Self-Defense Force ship**



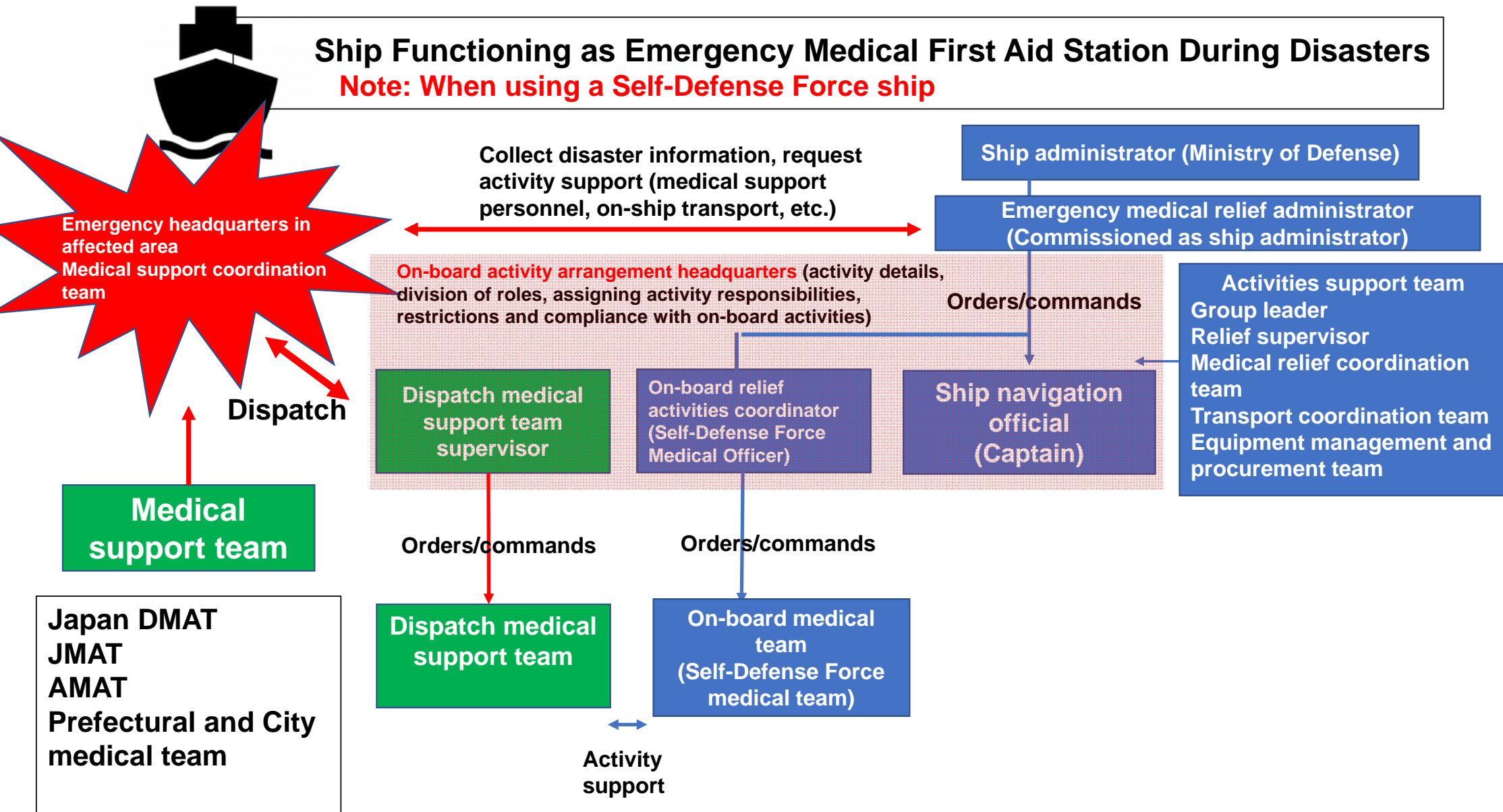


# Analysis of the past training & Investigation results

	特徴	急性期	
公的船舶（政府艦船）	○発災後の迅速な調達が可能  ○アメニティが低い  ○緊急性、非代替性の観点から長期の利用は困難	<div>平成25年度</div> <div>・実施日：平成25年8月31日（土） ・場 所：三重県尾鷲港沖 ・概 要：海上自衛隊輸送艦「しもきた」に陸上自衛隊野外科手術システムを搭載し、洋上医療拠点への患者搬送、応急措置・安定化処置の実証訓練を実施</div> <div>平成25年度（訓練状況）</div> <div><p>患者搬送（ヘリ甲板→車両甲板）</p><p>手術室での処置</p></div>	<div>平成27年度</div> <div>・実施日：平成27年9月1日（火） ・場 所：東京港木材ふ頭 ・概 要：接岸した海上自衛隊護衛艦「いずも」において、羽田空港SCUを補完する実証訓練を実施</div> <div>平成27年度（訓練状況）</div> <div><p>艦内移動（担架）</p></div> <div>平成29年度（訓練状況）</div> <div><p>車両甲板に医療モジュールを展開</p></div>
		<div>平成29年度</div> <div>・実施日：平成29年7月29日（土） ・場 所：和歌山県下津本港 ・概 要：接岸した海上自衛隊輸送艦「おおすみ」において、医療モジュールを搭載し、洋上SCUの実証訓練を実施</div>	
	特徴	亜急性期・慢性期	
民間船舶	○発災後の迅速な調達は困難  ○客室を備えた客船・フェリーはアメニティが高い  ○ヘリポートがない	<div>平成26年度</div> <div>・実施日：平成26年11月25日（火） ・場 所：東京港晴海ふ頭 ・概 要：接岸した民間カーフェリー「はくおう」に臨時医療施設を展開し、救急車による患者搬送、船内での模擬診療、安定化した患者の移送検討等の実証訓練を実施</div> <div>平成26年度（訓練状況）</div> <div><p>患者搬送</p><p>安定化処置</p></div>	<div>平成26年度</div> <div>・実施日：平成26年11月25日（火） ・場 所：東京港晴海ふ頭 ・概 要：接岸した民間カーフェリー「はくおう」に臨時医療施設を展開し、救急車による慢性病等の入院患者搬送及び船内で応急処置等の実証訓練を実施</div> <div>平成26年度（訓練状況）</div> <div><p>客室にて慢性患者に処置を実施</p></div> <div>平成27年度（訓練状況）</div> <div><p>血液浄化療法の検証</p></div> <div>平成28年度（訓練状況）</div> <div><p>要配慮者に医療・生活支援を実施</p></div>
		<div>平成27年度</div> <div>・実施日：平成27年9月1日（火） ・場 所：東京湾 ・概 要：航行中の東京海洋大学練習船「海鷹丸」において、血液浄化療法に係る実証実験を実施</div> <div>平成28年度</div> <div>・実施日：平成29年2月5日（日） ・場 所：神戸港 ・概 要：接岸した民間カーフェリー「こんぴら2」に要配慮者を受入れ、医療支援、生活支援実証を実施</div>	

# Ship Functioning as Emergency Medical First Aid Station During Disasters

**Note: When using a Self-Defense Force ship**



## Group 2: Operations During Disasters

### Group 2: Coordinating with other organizations

#### ☆Hospital ship responsibility during disasters

1. Assess the needs of the local government in the affected area
  2. Transport relief supplies (transportation and resupply function)
  3. Receive and treat patients (hospital function)
  4. Air and sea transport (ship in and out): Air transport function
- Additional: Supply water (for everyday life and medical use)

#### ☆Possible other organizations to coordinate with

0. National government (Cabinet Office)
  1. Local government in affected area (prefectural, municipalities)
  2. Medical institutions in the affected area
  3. Medical teams such as JMAT and DMAT
  4. Japan Red Cross (relief supplies, blood products)
  5. Self-Defense Forces (Ground, Maritime, Air)
  6. National Safety Agency, Fire and Disaster Management Agency  
(air transport function: helicopters)



## Items to Consider

1. Scale and profession of liaisons with local governments in affected areas, and methods of communication
  - Is there personnel for medical arrangements, resupply arrangements, and evacuations (helicopter)?
2. Permission for helicopter use to other institutions from carrier (during travel, nighttime)
3. Hospital ship helicopter transport function and operating requirements
4. Ocean transport function (patients and supplies)
  - Transport functionality of boats and use of other institution and civilian vessels
    - Operating requirements of boats
5. Whether or not medical worker reinforcements can be sent to emergency medical cases in the affected area from the hospital ship
  - Management of and contact with dispatched personnel
6. Procedures for accepting personnel at the hospital ship from other institutions (particularly medical workers)



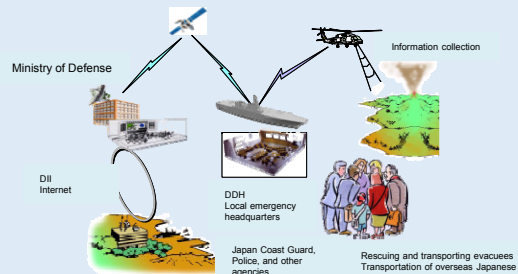
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**A1** 原稿に 4 とありますが、前後関係から 5 として訳出しております。  
作成者, 2018/06/15

# Naval vessel properties

## Command center function



## Self-contained

Water and electricity

## Resupply function



## Aircraft operation function



## Medical function



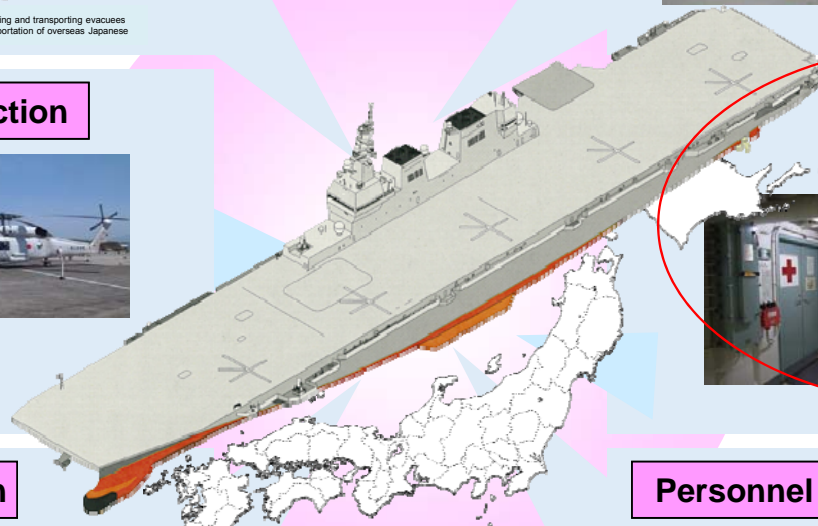
## Transport function



## Personnel accommodation function



## Force projection



# Group 3: Supply Items to Consider

- ① Personnel
- ② Drugs, medical supplies, medical equipment
- ③ Supplies for daily living
- ④ Fuel



# ① Personnel

## ➤ At Mercy

- There are 60 full-time medical staff members at Mercy (Members of the Navy)
- When active, 1,200 medical staff members board the ship from the Naval Medical Center San Diego and begin their duties  
(Not all personnel are present when shipping out > Fly in fly out from neighboring supply area)
- NGOs sometimes board during disasters (pre-registration system?)
- Depending on the number of personnel on board, the hospital functions partially or at full specifications





➤ Personnel challenges in medical activities on an existing Self-Defense Force ship



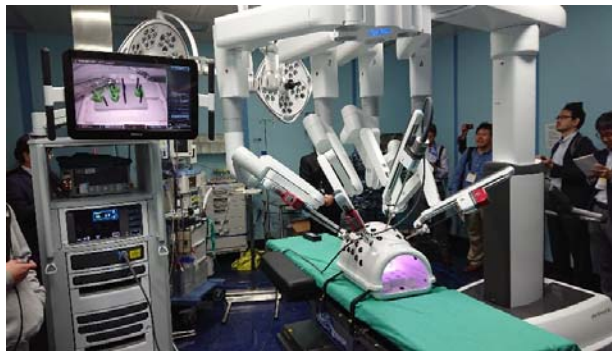
- Can full-time medical staff be assigned?
- Method for boarding medical staff from a designated hospital in the same way as Mercy when active (Self-Defense Force hospital?)
  - Use registration system such as DMAT to board registered civilian medical staff when active
  - The required personnel should be determined beforehand according to hospital function and scale
  - How should active time be set? (Long-term or short-term)
    - ⇒ In shifts
  - Personnel transport (helicopter)
  - Research system and content (standard)
    - ⇒ Instruction/training, etc.



## ② Drugs, medical supplies, medical equipment

### ➤ At Mercy 🇺🇸

- There are stockpiles during normal times and when active  
In general, items that can be used universally are available (for 30 days)
- Drugs, medical supplies, and equipment are determined according to active details
- The neighboring supply area in the active region is predetermined, and the transportation method differs according to whether or not it is possible to berth
- Oxygen can be produced onboard the ship
- Possesses blood storage functionality



➤ Equipment resupply challenges in medical activities on an existing Self-Defense Force ship



- Is it possible to store drugs, medical supplies, and equipment during normal times? (basic set)
  - Selection and storage of drugs, medical supplies, and equipment for inclusion when active
    - ⇒ Modularized according to disaster type, phase, and needs
  - Area division of resupply location (Select resupply and storage station in Eastern and Western Japan)
    - Can an agreement be signed with any hospital or institution, and can management be delegated during normal times?
    - Resupply method while active
      - ⇒ Resupply method according to whether or not berthing is possible (helicopter or ship, etc.)
    - Secure medical-use oxygen
    - Secure and store blood for transfusions



### ③ Supplies for daily living

#### ➤ At Mercy

- There are stockpiles during normal times and when active
- Supply shortages can be solved by military resupply from neighboring supply areas

#### ➤ Items for daily living resupply challenges in medical activities on an existing Self-Defense Force ship

- Select supplies quantity according to number of ship personnel/patients
- Storage location and resupply method



## ④ Fuel

### ➤ At Mercy

- Refueling at sea from a supply ship
- Is the fuel used for sailing and fuel used for hospital functions different?

### ➤ Fuel resupply challenges in medical activities on an existing Self-Defense Force ship

- Is the supply method different depending on the ship?
- Select refueling location

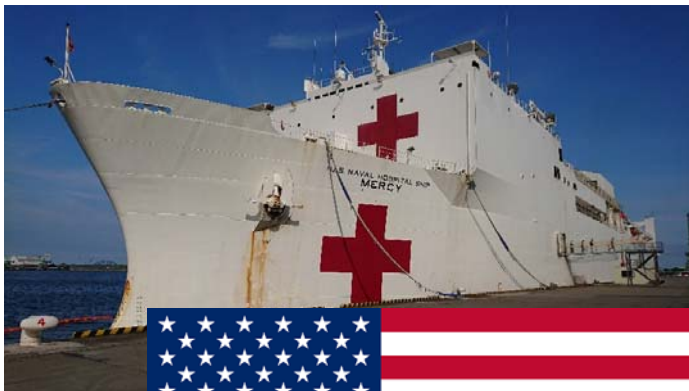




# Acknowledgments

We learned a lot from Marcie.

We want to make use of this learning in a Japanese hospital ship.



Thank

You

