

The MV Sewol Ferry Accident

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The MV Sewol Ferry Accident Detail

Our response to the Accident

Medical support to the survivors

Lessons from the Accident

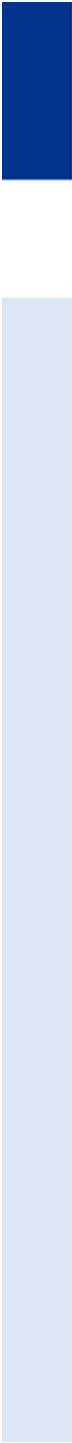
Our effort for the future



The MV Sewol Ferry Accident

- The MV Sewol Ferry sank on 16 April 2014
 - En route from Incheon to Jeju (13.5hrs)
 - 476 people were in there
 - mostly 2nd grade high school students ; Danwon High School in Ansan city
 - 6,825 ton vessel





The MV Sewol Ferry

- Built by Japanese company in 1994
 - Originally 5,997ton → 6,586ton → 6,825ton
 - Ferry Naminoue(~2012)
 - Ferry Sewol from 2012, by Chonghaejin Marine Company
 - Passenger 804 → 921

The MV Sewol Ferry

Ferry MV Sewol (Time and Tide)

Capacity:

Passengers

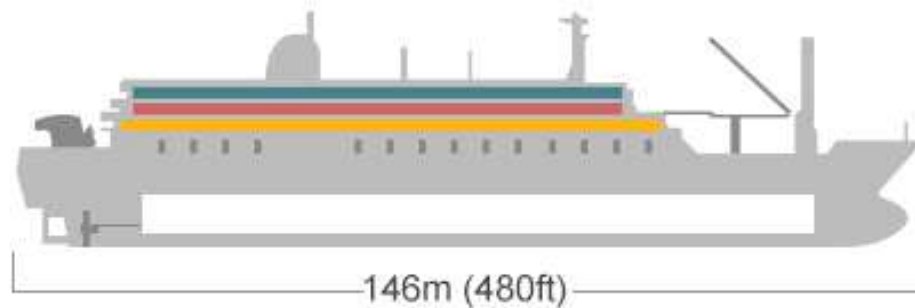
■ Top level: 11

■ Middle: 484

■ Bottom: 426

Vehicles: 180

Containers: 152



Max cruising speed:
21 knots

Weight:
6,825 tonnes

Built:
Japan 1994

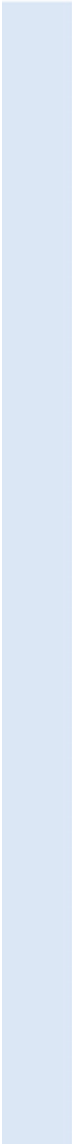
Owner:
**Chonghaejin
Marine Co Ltd**



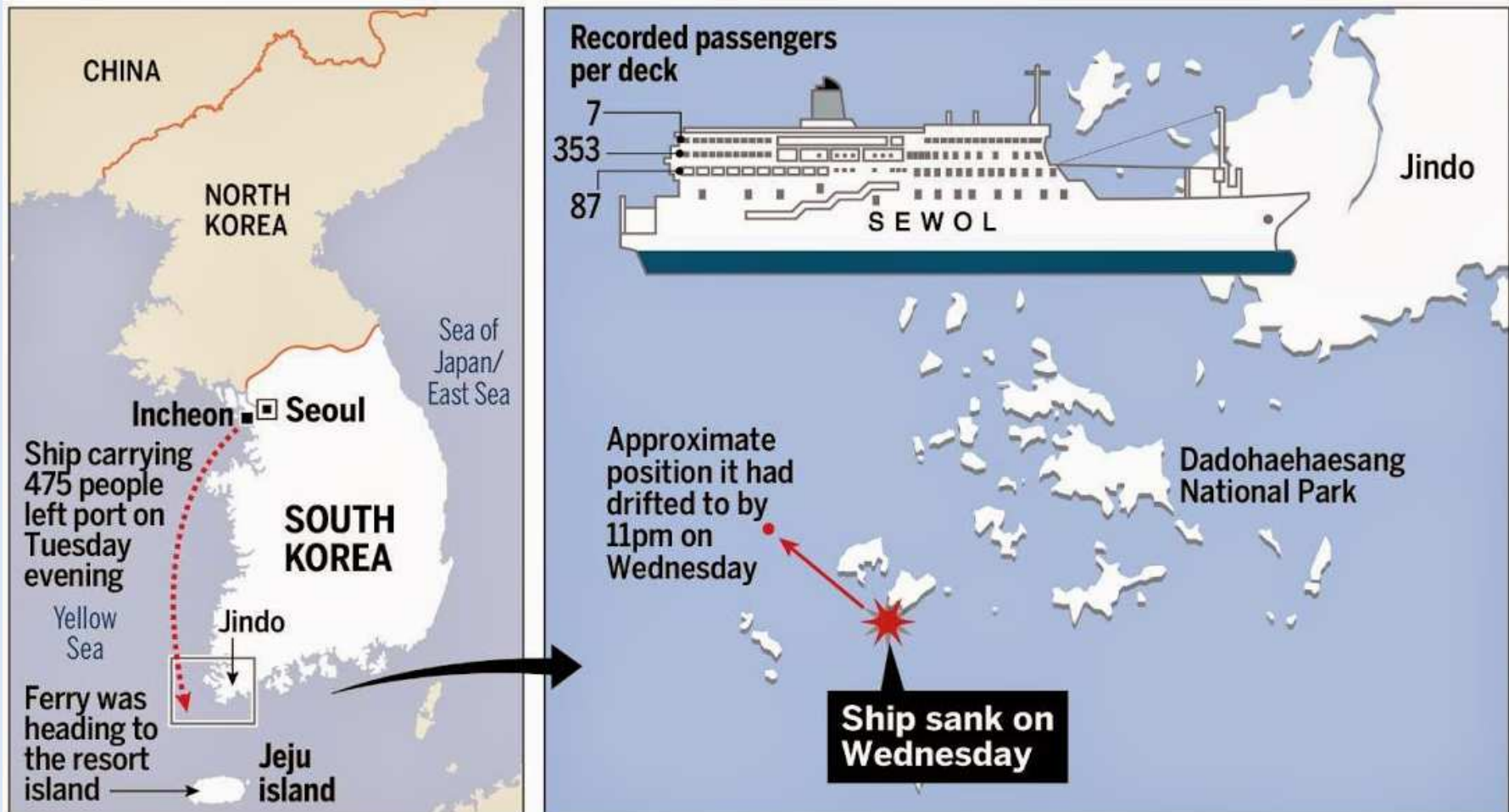
Source: Yonhap, AP, Reuters



The MV Sewol Ferry Passengers

- 
- 450 passengers reported by company
 - Some news report : 350 to 500
 - 459 passengers by Ministry of Security and Public Administration
 - Lately the company changed the number of people on board to 476 (325 students)

The MV Sewol Ferry Accident



The MV Sewol Ferry Accident

Timeline

09:00 (local time)
Initial distress
signal issued

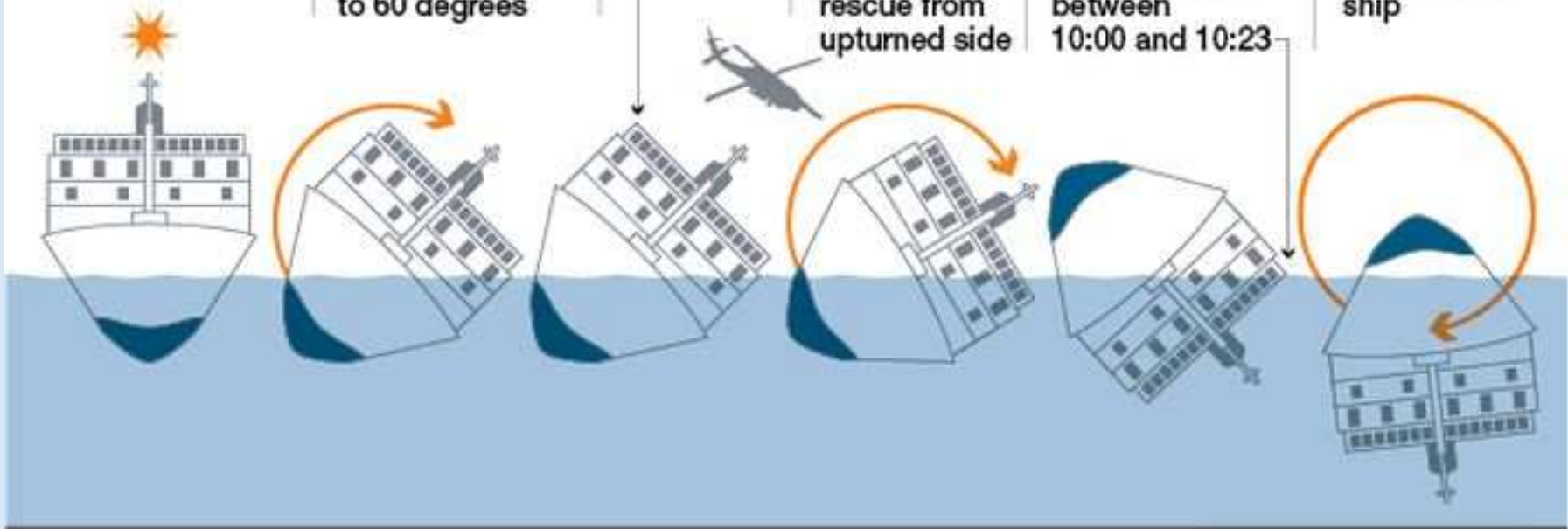
09:30
Coastguard
ships, helicopters
start arriving
Ferry tilted
to 60 degrees

09:45
First
helicopter
rescues

10:00
Coastguard
photo shows
ongoing
helicopter
rescue from
upturned side

Rescues
take place
from overturned
side sometime
between
10:00 and 10:23

10:23
Coastguard
picture shows
only front end
of upturned
ship



SOURCE: SOUTH KOREA COAST GUARD & SOUTH KOREA MEDIA

STRAITS TIMES GRAPHIC ADAPTED FROM AFP

The MV Sewol Ferry Accident

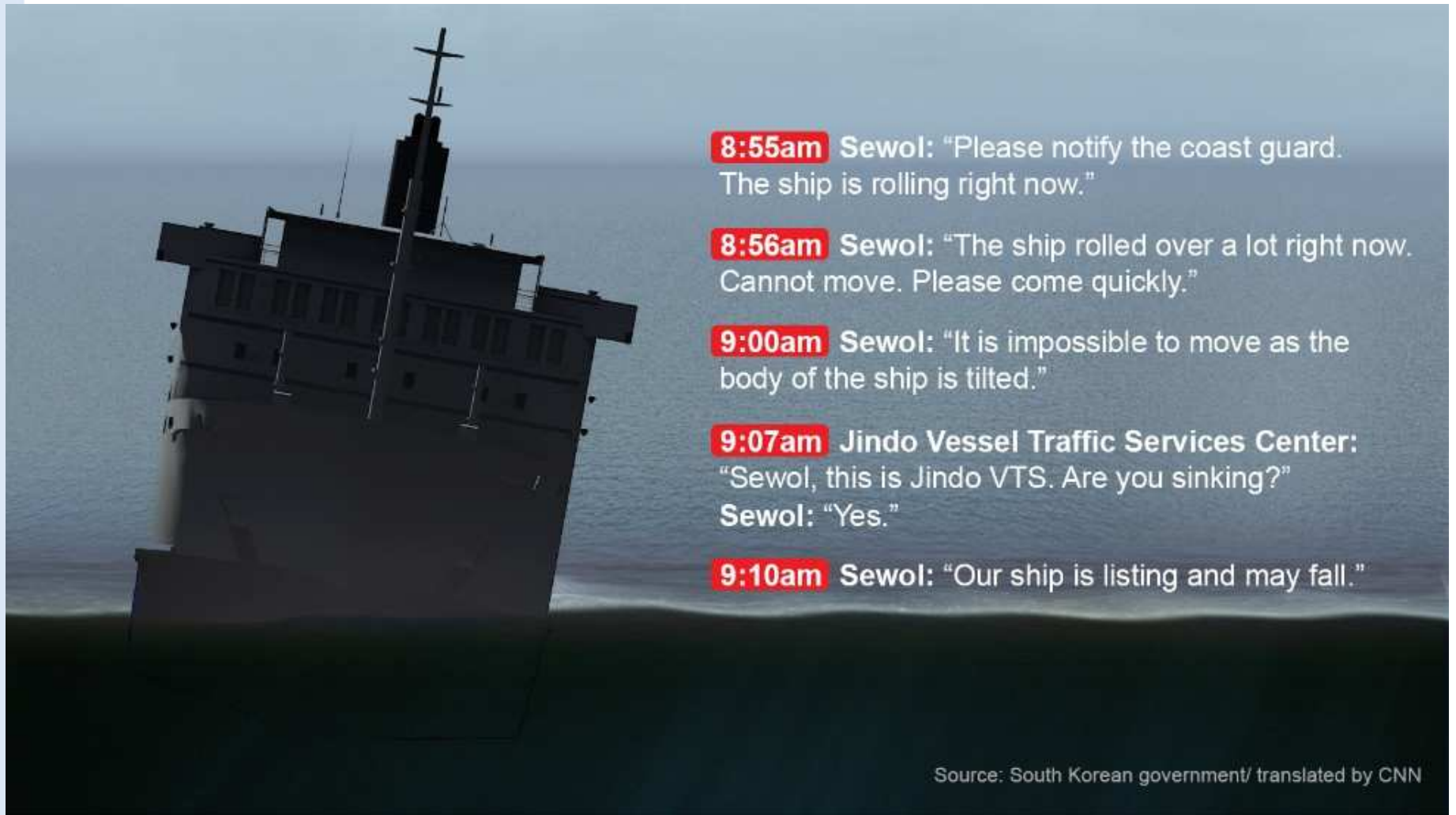
- Sharp turn?(8:49am)
 - 45 degrees to the right
 - Passengers felt tilt and heard a loud 'bang'
- A student called 119 → connected to the Mokpo coast guard(8:52am)
- Ferry contact with the Jeju VTS(8:55am)

Timeline of the accident

- Coast guard dispatched a patrol vessel (8:58am)
- Captain, communications officer repeatedly ordered passengers 'not to move'
- Ferry contact with the Jindo VTS(9:07am)
- The crew confirmed to VTS that the ferry was capsizing(9:14am)



Timeline of the Accident



8:55am Sewol: "Please notify the coast guard. The ship is rolling right now."

8:56am Sewol: "The ship rolled over a lot right now. Cannot move. Please come quickly."

9:00am Sewol: "It is impossible to move as the body of the ship is tilted."

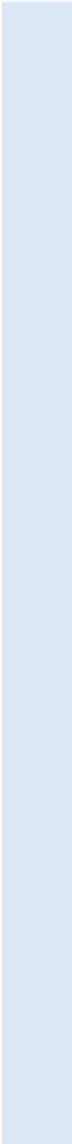
9:07am Jindo Vessel Traffic Services Center: "Sewol, this is Jindo VTS. Are you sinking?"
Sewol: "Yes."

9:10am Sewol: "Our ship is listing and may fall."

Source: South Korean government/ translated by CNN



Timeline of the accident

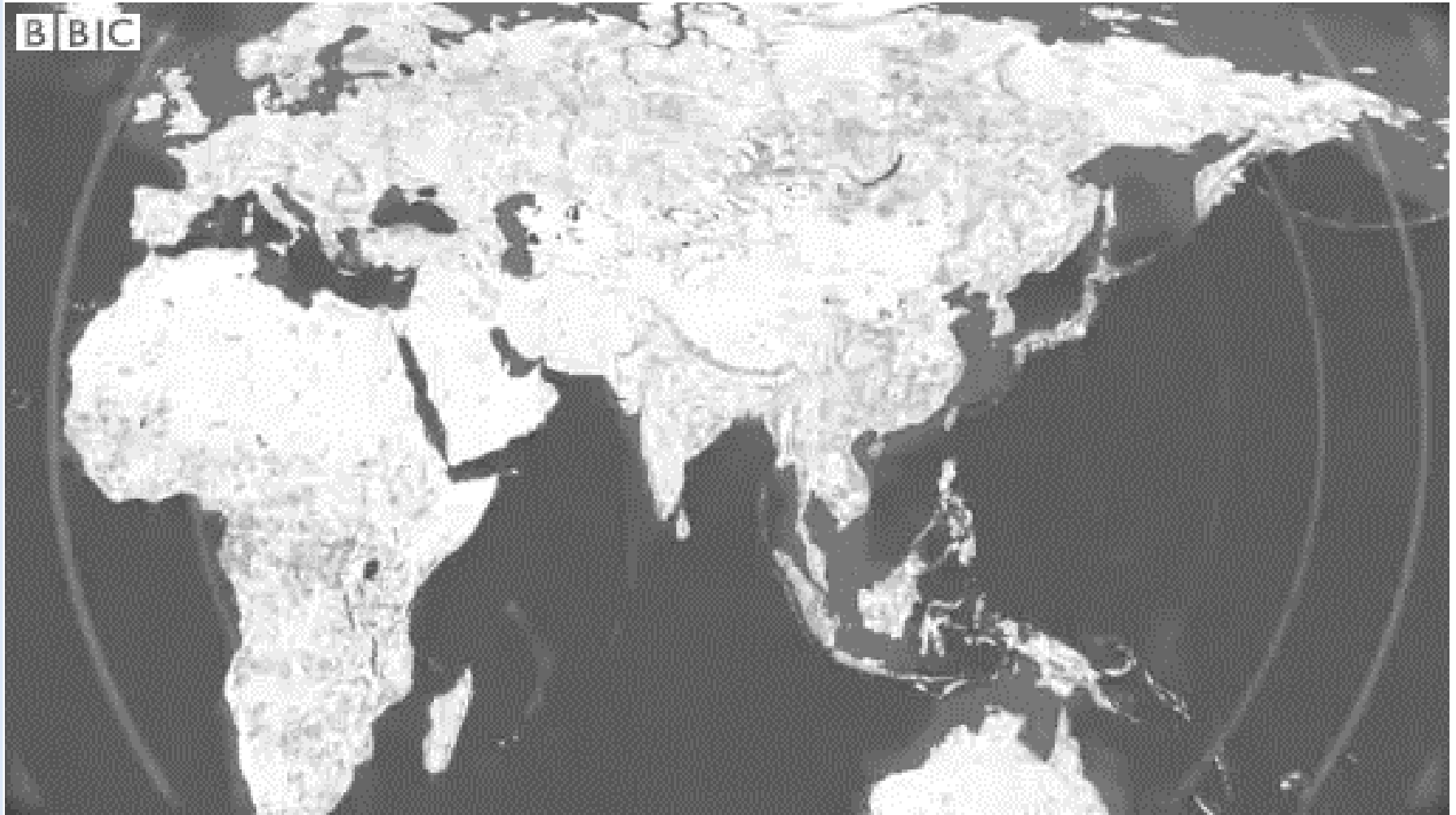
- 
- Crew reported that the ferry had heeled more than 50 degrees to port(9:18am)
 - VTS ordered the crew to inform the passengers to wear personal floatation devices(9:23am)
 - VTS told the crew to personally order the passengers to wear life jackets



Timeline of the accident

- VTS asked the captain to decide quickly whether to evacuate the ship(9:25am)
- Evacuation ordered(9:30am), but not relayed to all the passengers
- VTS told all the nearby ships to drop lifeboats(9:33am)
- All communications were cut off(9:38am)

Timeline of the accident (BBC news)



Victims in the cabin



Text messages



sis, something's wrong
with the ferry

huh? what's going on?

just heard booms...

sis, i love you

sorry i haven't been
good to you

please tell mom, too

i love you

what do you mean?

just answer the phone

the phone's just not working

i'm gonna follow dad



Response to the accident

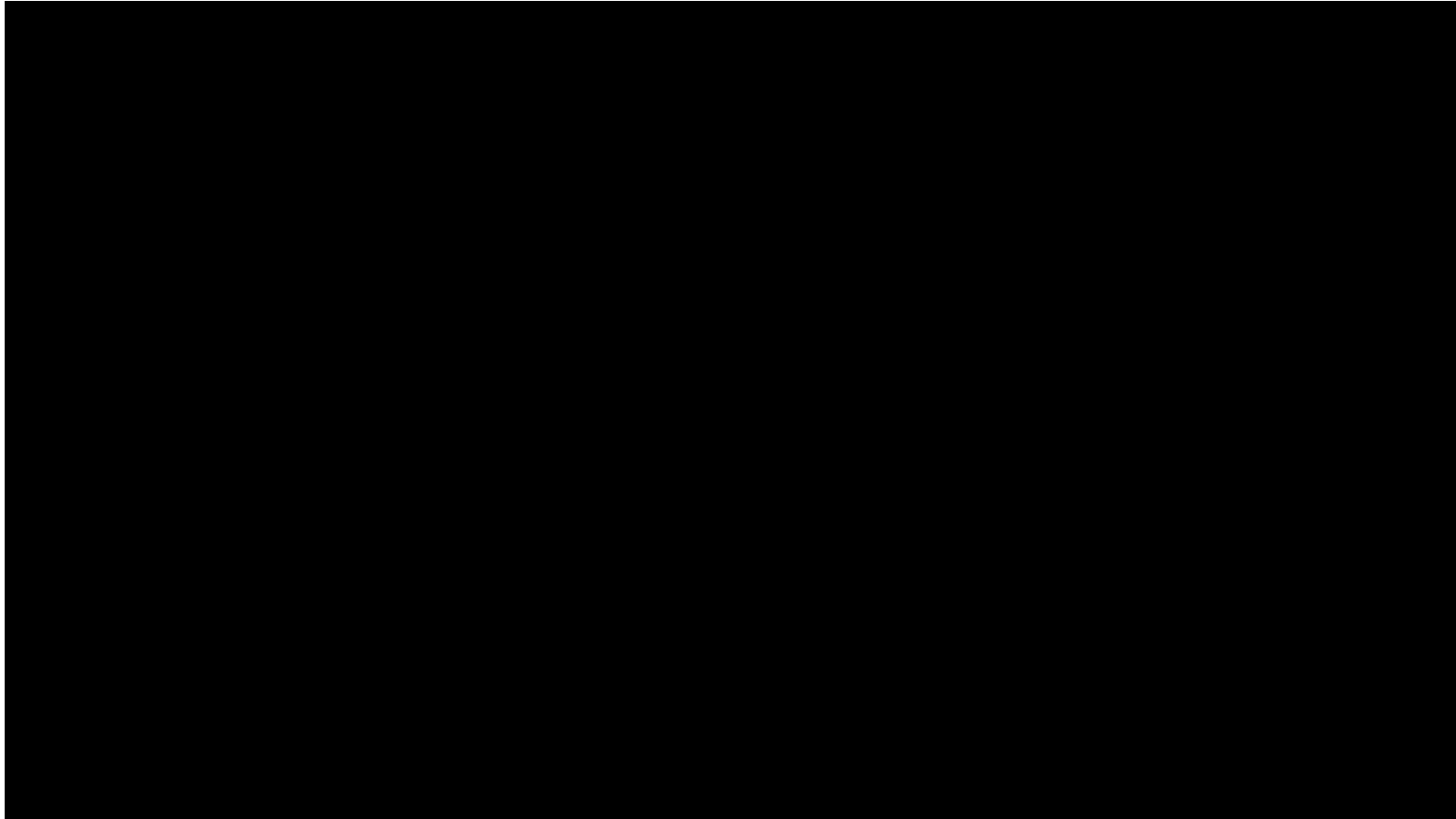


Response to the accident

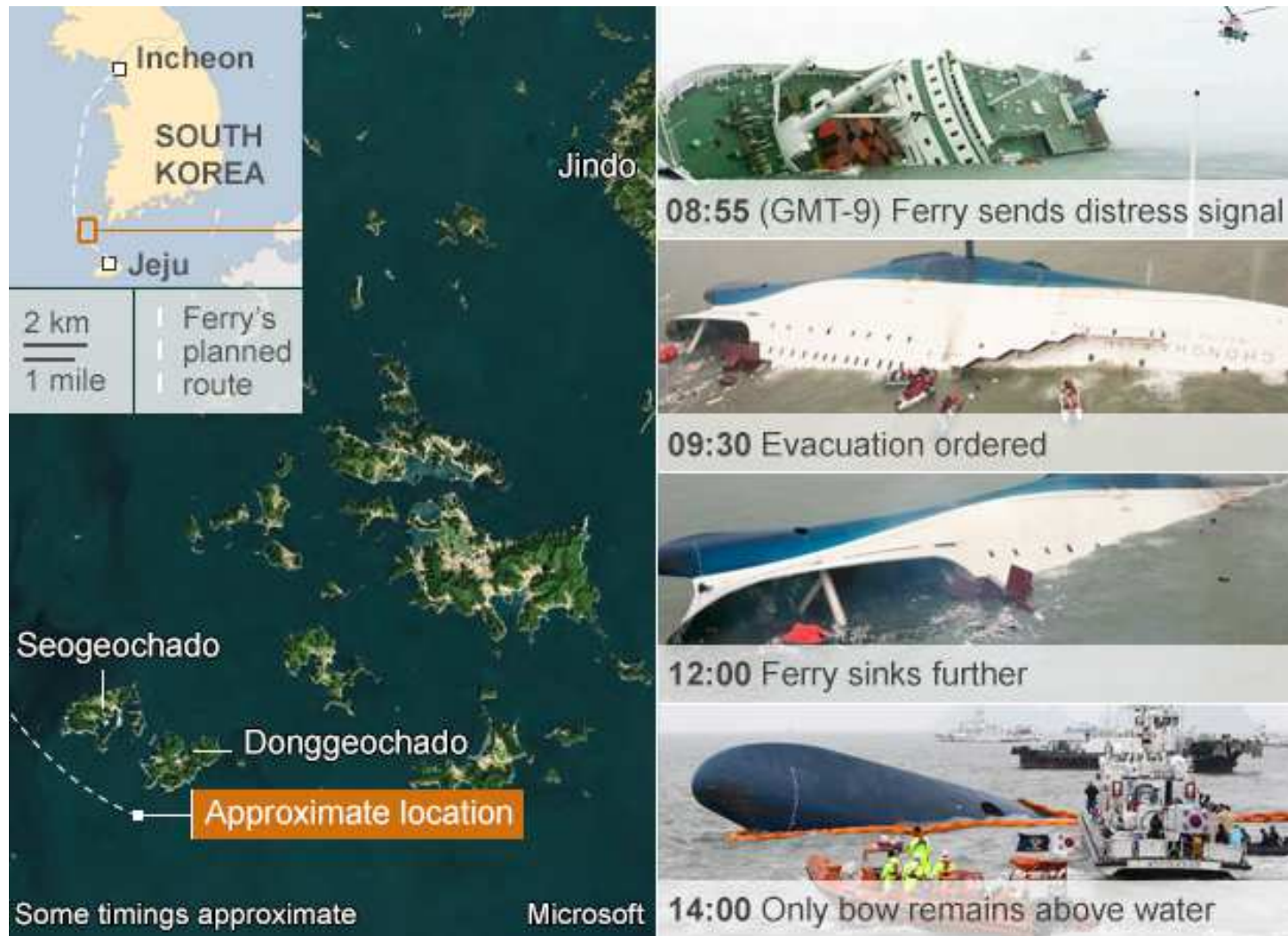




Response to the accident

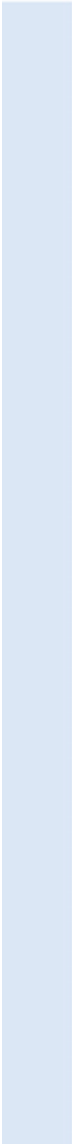


Response to the accident



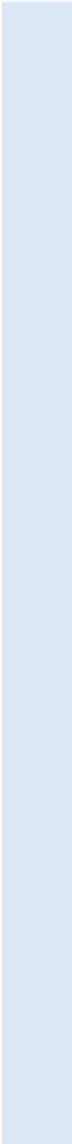


Response to the accident

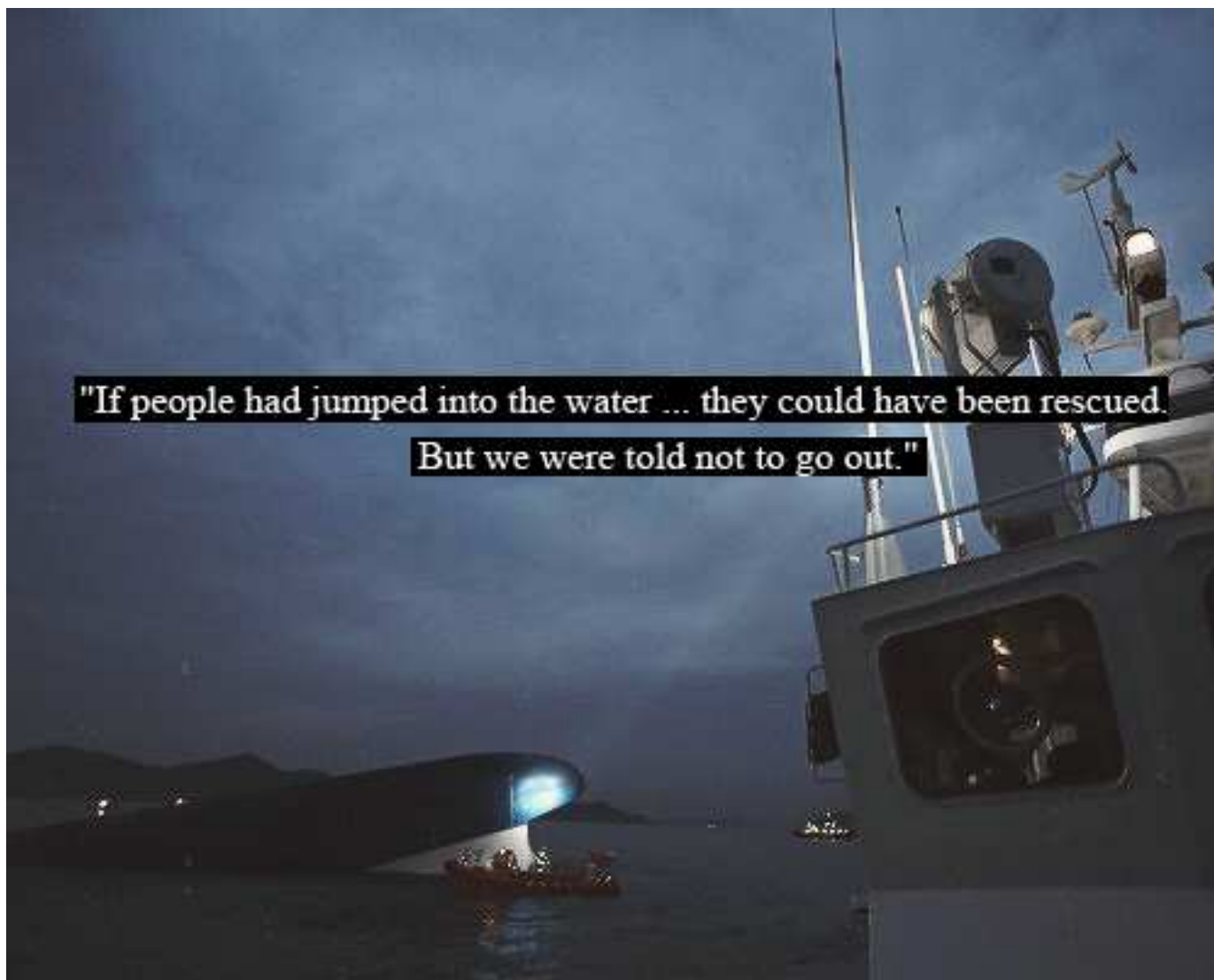
- 
- The Central Disaster Headquarter(Government of South Korea)(9:04am)
 - Rescue operation headquarters(South Korean Coast Guard)(9:10am)
 - Counter disaster headquarters(Ministry of National Defense)(9:35am)
 - Central accident response headquarters(Ministry of Oceans and Fisheries)(9:40am)
 - DMAT were sent to Jindo(Ministry of Health and Welfare)
 - Korea Navy's Ship Salvage Unit(SSU) deployed(11:28am)
 - ROK Naval Special Warfare Flotilla involved(2:42pm)



Response/report to the accident

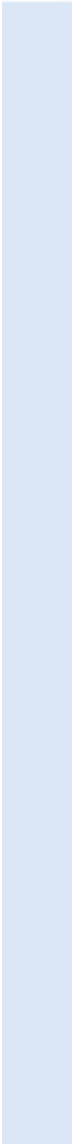
- 
- 9:30am Coast Guard didn't entry to the vessel
 - 11:01-11:25am News reported that all passengers were rescued
 - 11:35am First body lifted(woman crew)
 - 1:30pm The Central Disaster Headquarter reported 368 passengers were rescued
 - 4:30pm The Central Disaster Headquarter corrected 164 passengers were rescued
 - 17th April, 2:00pm President Park visited
 - 18th April, 3:27pm Coast Guard failed to entry(SCUBA divers)

**"If people had jumped into the water ... they could have been rescued.
But we were told not to go out."**





Survivors from the accident

- 
- On-site emergency medical assistance prepared : by regional EMC
 - Total 3 boats transferred the survivors(total 172 escaped)
 - Triaged by emergency physician from regional EMC

Survivors from the accident



Survivors from the accident





Survivors from the accident

- Most of the survivors were minimal
- Only 1 student had pelvic bone fracture but it was stable
- Some of them transferred to local hospital, others sent to Jindo gymnasium
 - students were sent to Ansan city (local emergency center)

Medical support to the survivors

- Most of students admitted to Korea university Ansan hospital(local hospital)
 - Physical / psychological evaluation
 - Physical / psychological support



Medical support to the survivors



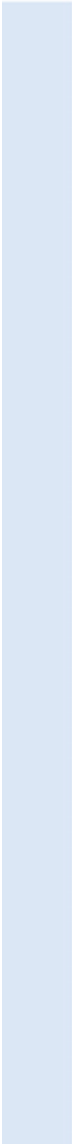


Medical support to the survivors

- Discharged at 30th April
- Till May, the local hospital emergency center cared
 - 75 acute stress reaction
 - 30 somatization : general weakness
 - 2 drug intoxication
 - 1 cerebellar infarction (mother of victim)



Medical support to the community

- 
- ‘Ansan psychological trauma center’
 - Built up by the Ministry of health and welfare
 - Supported from the National Seoul Psychiatric hospital / Korean neuropsychiatric association
 - Psychiatric support to the victims’ family, Middle / High school students in Ansan city
 - Visited each victims’ family home
 - Programs to prevent PTSD, depression

Problems

- The ship company didn't maintain the vessel by the principles



- Negligent maintenance
- There was no safety training to crews / passengers

성명	직책	3/15	3/20	5/16	6/25	8/29	9/28	11/07	01/14	02/25
이준석	선장									
양미리나	3등사									
김태영	2기사									
고경호	조기수									
김영	3기사									
박정남	기관수									
최익환	기관수									
박지영	승무원									
정원선	승무원									
최장나	조리수									

Problems

- The MV Sewol was overloaded by cargo(for greed)



- Safety Equipment didn't work



Problems

- The MV Sewol didn't continued the communication between VTS
- The captain and crews escaped early(abandoned passengers)
- The Coast Guard didn't enter to the vessel



Problems

- The early diving rescue operation failed



Lessons from the accident

- Scarce preparedness about marine accident
 - No safety training / instruction for equipment use
 - Coast guard readiness
 - Manpower for marine rescue (diver, specialist...)
 - Equipment for marine rescue



Lessons from the accident

- No specific responsibility about marine accident
- Confused ICS
 - 119(Fire), Coast guard, Navy
 - 119 : specialized in disaster but, not specialized in marine disaster
 - Coast guard : familiar with police job, not rescue or disaster
 - Navy : alert for any engagement than disaster



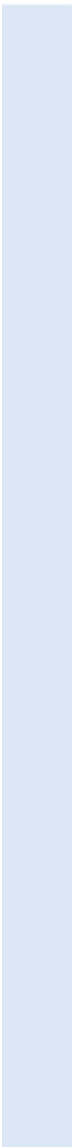
Lessons from the accident

- Difficulty in deployment of healthcare resources
 - DMAT
 - On-site emergency medical assistance (include psychiatric assistance)
 - Medical assistance for divers
- Physician, nurse, EMT, drug, equipment...





Lessons from the accident

- 
- Even if a one, simple disaster can ruin the whole society : psychiatric trauma
 - Healthy survivor or dead bodies
 - Many high school students and teachers died : national sadness / teardrops
 - Psychiatric support for Ansan city



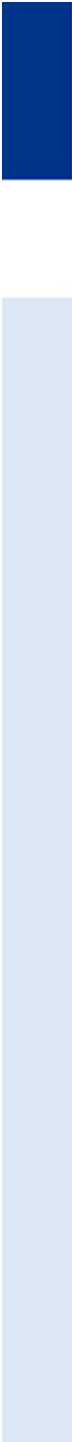
Our effort for the future

- New disaster control tower(like NEMA) : National Security Agency(tentatively)
 - Establish powerful control tower(ICS)
 - Strengthening inter-agency cooperation/communication
 - Separated disaster management system by environment(119, 122...) → unify

Our effort for the future

- President announced the new disaster plan

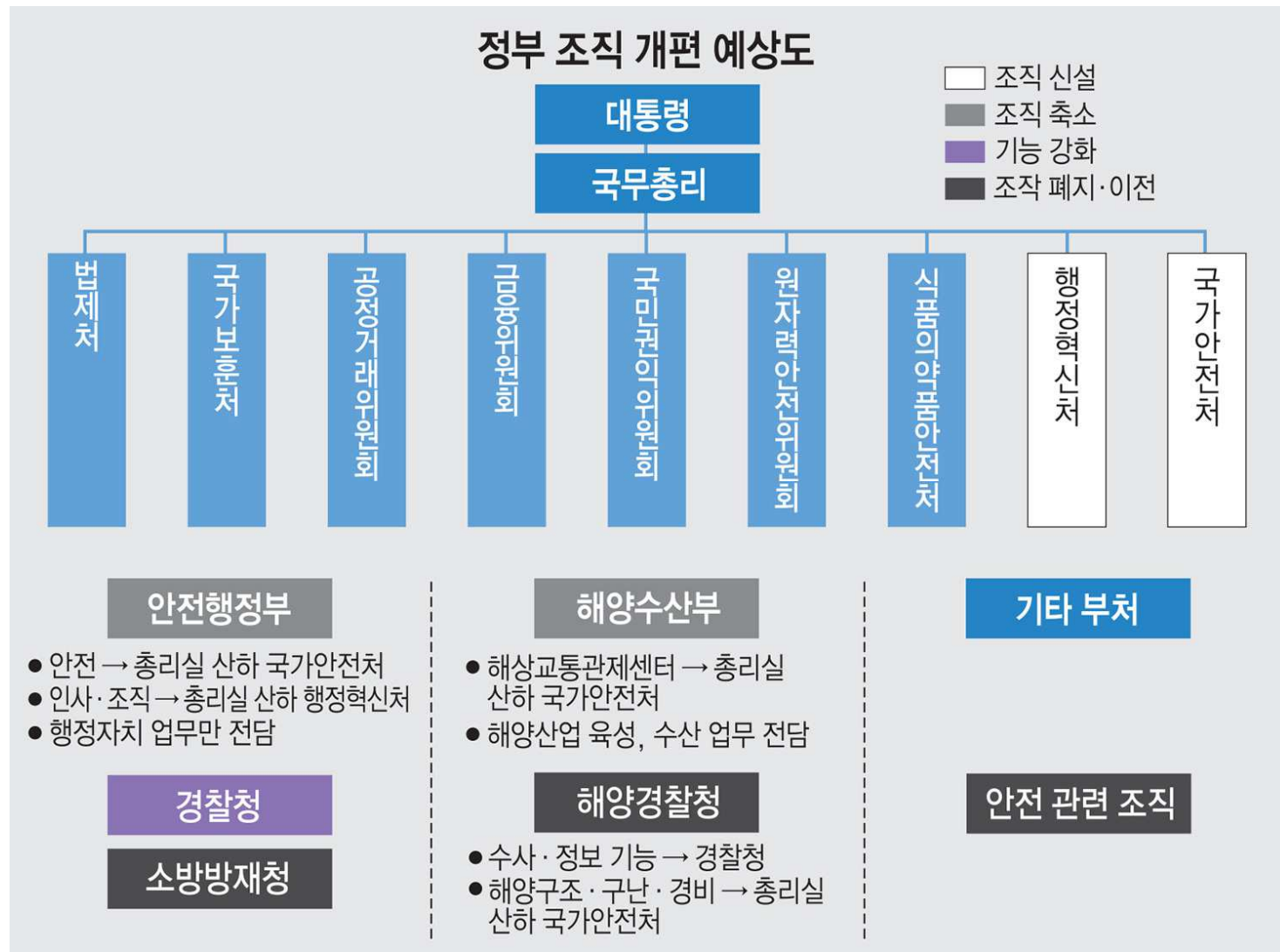




Our effort for the future

- Specialized, integrated rescue team
 - Strengthening the specialty of human resources in disaster management area
 - Establish the initial recruitment system of specialist
 - Cover various kind of disaster

Our effort for the future



Our effort for the future

- Reinforcement of education/drill ; enhance preparedness
 - Experience various simulated disaster
 - Read/memorize the manual
 - Collaborate private-public-military area



Our effort for the future





Our effort for the future

- Strengthen the power to cope with the marine accident
 - Secure the marine accident specialists
 - Develop and purchase the equipments for marine accidents
 - Maintenance of law and institutions

Thank you!

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