



# REPUBLIC OF TURKEY MINISTRY OF TRANSPORT, MARITIME AFFAIRS AND COMMUNICATIONS

**Accident Investigation Board** 

# Accident Investigation Report On The Collision of Boats of LADY COPPELIA & SEYYALE

MUĞLA/Marmaris, off the Coast of Bozburun 11th September 2014

Report Number: 03/2015

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This report is prepared by the Accident Investigation Board.

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# **PURPOSE**

This marine accident was investigated in accordance with the Bylaw on the Investigation of Marine Accidents and Incidents which came into force after being published at the Official Gazette No.29056 on 10th July 2014. Investigation procedures and principles are further applied by considering Resolutions of International Maritime Organization concerning International Standards and Recommended Applications for Safety Investigations Directed to MSC 255(84) (Accident Investigation Code) and Resolution A.1075(28) Sea Accidents or Incidents, and European Union Directive 2009/18/EC.

Purpose of the Marine Accident Investigation is to provide the improvement of the legislation and applications directed to the safety of life, goods and environment by achieving the real reasons which cause the occurrence of marine accidents, and thereby, to avoid a repeat in occurrence and to provide the mitigation of negative impacts and consequences following the accident.

Marine accident investigation shall be inadmissible in any judicial and administrative proceedings whose purpose or one of whose purposes is to attribute or apportion liability or blame,

CONTENTS	PAGE
SUMMARY	1
1. FINDINGS	3
1.1. Information About the Boats and the Accident	3
1.2. Environmental Conditions	4
1.3. Course of Events In the Accident	4
1.3.1. Course of Events Before the Accident.	4
1.3.2. The Event of Accident	6
1.3.3. Events at the Aftermath of the Accident	6
1.4. Key Personnel	8
2. ANALYSIS	9
2.1. Safe Speed	9
2.2. Navigation Lights	
2.3. Look-out	14
2.4. Head-on Situation	14
2.5. Narrow Channels	16
2.6. Speed Limit	17
2.7. Life Saving Appliances	17
2.8. Service Boats and Life Saving Appliances	17
2.9. First-Aid and Ambulance Service	
3. CONCLUSIONS	20
4 RECOMMENDATIONS	21

LIST OF FIGURES	PAGE
Figure 1. Location of the Accident	1
Figure 2. Sitting positions of the people onboard the boat of LADY COPPELIA	5
Figure 3. Sketch of the Accident Scene	5
Figure 4. Craft identification plate of the boat of SEYYALE	11
Figure 5. Inflatable boat of the private boat LADY COPPELIA	12
Figure 6. Inflatable boat of the commercial yacht SEYYALE	13
Figure 7. Estimated positions of the boats at the time of collision	15



# **SUMMARY**



Figure 1. Location of the accident

Owner of the LADY COPPELIA together with his friend, and owner of the REGINA, together with his wife and 2 daughters were on holiday on their boats at Orhaniye/Marmaris. 6 people as a group went to a restaurant on 11.09.2014 at Bozburun for dinner. The group, after their meal, left the restaurant to return to their pleasure crafts. In total 4 people consisting of the owner of the LADY COPPELIA and his friend and 2 sisters were onboard the inflatable boat belonging to the LADY COPPELIA, and owner of REGINA and his wife were onboard the inflatable boat belonging to REGINA.

The commercial yacht SEYYALE was staying as anchored at the North-east of Bozburun Kızılada. Around 20:30 hours captain of the yacht launched the inflatable service boat belonged to the yacht on the sea and together with the captain of the boat GALENE anchored at the same place and set off towards Bozburun.

While the inflatable boats which belonged to the LADY COPPELIA and SEYYALE were passing through the West of Yeşilada located at the South of Bozburun Port, around 20:45 hours they collided. As the result the collision the console of the inflatable boat belonging to LADY COPPELIA was broken up and separated from its position, rupture occurred on the starboard side of the boat and it capsized.

Scratches occurred on the starboard side of the inflatable boat belonging to the commercial yacht SEYYALE. 3 people on the inflatable boat belonging to LADY COPPELIA were injured as the result of the collision.

Immediately after the accident, injured passengers were transferred to the Port of Bozburun by the boat belonging to SEYYALE, and despite the urgent interventions, one of the injured persons died in the ambulance during transfer to Marmaris State Hospital.

# 1. FINDINGS

# 1.1 Information About the Boats and the Accident

Information About the Boats			
Name of the boat	Service boat of the private	Service boat of the	
	boat LADY COPPELIA	commercial yacht	
		SEYYALE	
Flag	UK	Turkey	
Туре	Hard bottom inflatable	Hard bottom inflatable (RIB)	
	(RIB)		
Length overall / Breadth	3,5 / 1,77 m	4,2 / 2,22 m	
Main Engine Type and Power	25 HP Selva brand	50 HP Yamaha brand	
	outboard	outboard	
Nautical Speed	Approximately 25	Approximately 35 nautical	
	nautical miles	miles	
Other Information	Operated from console	Operated from console	

Information About the Accident			
Date and Time	11 <sup>th</sup> of September 2014 / around 20:45 Local Time		
Place of the Accident	Bozburun / Marmaris		
<b>Location of the Accident</b>	Approximately 41 01,00 North / 028 58,38 East		
Number of persons onboard the Boat	4	2	
Injured/Fatality/Missing	1 dead, 2 injured	None	
Damage	Boats' console separated from its' position fully with the effect of collision and ruptures occurred on the starboard side inflatable part.	Light scratches occurred at the Boats' aft starboard side and at the outboard engine's right wing.	
Pollution	None	1	

# 1.2 Environmental Conditions

The sea was calm at the region on 11 September 2014. At local time, sunset hour was 19:21, moonrise was at 20:52 hrs. The time zone when the accident occurred exactly coincided in just between the sunset and moonrise, and the moonrise was yet started. No other meteorological condition that might negatively affect the vision had been prevailing at the area.

#### 1.3 Course of Events in the Accident

# 1.3.1 Course of Events Before the Accident

Owner of the LADY COPPELIA and his friend and owner of the REGINA together with his wife and 2 daughters altogether were taking their vacation on their pleasure crafts at Orhaniye/Marmaris. Altogether they went to a restaurant at Bozburun by inflatable boats belonging to their pleasure crafts around 18:00 hours on 11.09.2014. The group, after the dinner, around 20:30 hours, left the restaurant to return to their pleasure crafts at the west of Kiseli Island.

The inflatable boat belonging to LADY COPPELIA was equipped with a bigger and more powerful engine than the inflatable boat belonging to REGINA. Therefore, total 4 people consisting of the boat owner and his friend and 2 sisters were on board the boat belonging to LADY COPPELIA, and 2 people consisting of the boat owner (father of the sisters) and his wife (mother of the sisters) were on board the other boat. Both boats were commanded by their owners. The inflatable boat belonging to REGINA started to proceed firstly and the boat belonging to LADY COPPELIA overtook the other boat with its navigations lights on. Because the engine power of the boat belonging to REGINA was small (3,5 HP), the boat belong to LADY COPPELIA slowed so that boat belonging to REGINA could catch it. Both boats were sailing at 3-4 knots with 25-30 m. distance between them. According to the seating positions on the boat belonging to LADY COPPELIA, the elder sister, victim of the accident, who died, was sitting at the starboard bow, younger sister was sitting at the port bow, owner of the boat was sitting on the control console and the other person (friend of the boat captain) was sitting at the port quarter.

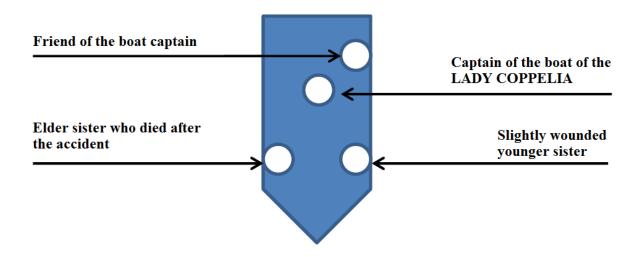


Figure 2. Sitting positions of the people onboard the Boat of LADY COPPELIA



Figure 3. Sketch of the accident scene

The commercial yacht SEYYALE anchored approximately at 17:00 hours on 11<sup>th</sup> of September 2014 at the north-east of Bozburun-Kızılada. At approximately 20:30 hours, captain of the yacht launched the service boat of the yacht and together with the captain of the GALENE, which was anchored at the same place, started to navigate towards Bozburun in order to procure some needs. The boat belonging to the SEYYALE was operated by the captain of the commercial yacht. The captain of the boat told in the interview that he switched on the navigation lights as per stated in the International Regulation for Preventing Collisions at Sea (COLREG) because the sun was went down, and additionally as a precautionary measure turned on the flasher located at the back of mobile phone and was heading at low speed (6-7 knots).

# 1.3.2 The Moment of Accident

During interview, it was stated that the sisters were looking occasionally to the boat operated by their father and which followed their boat and from time to time looking in front of them, and instantly they saw a boat coming towards them and shouted "Watch Out". The younger sister who was sitting at the port side of the boat told that at the moment when she looked at the front of the boat she saw a small light. The father of the sisters who was operating the boat coming behind stated that he heard an engine sound gradually rising and shouting from the boat ahead of it, however he added that he did not see any light; his wife told that she saw a silhouette of boat in front of them.

Captain of the boat belonging to SEYYALE stated that they heard shouting while they were passing from the west of Yeşilada located at the south of the Port of Bozburun, and added that as soon as they heard the sound the captain of the boat turned the rudder to the port side. Around 20:45 boats belonging to LADY COPPELIA and SEYYALE collided.

# 1.3.3 Events at the Aftermath of the Accident

Upon impact of the collision the elder sister, who were sitting on the starboard side of the boat and the captain of the boat belonging to LADY COPPELIA fell into the sea and the other two passengers stayed onboard the boat. It was pointed out that after the collision the boat belonging to the vessel called SEYYALE was thrown into the air and passed over the boat

and at that time the younger sister sitting at the port side of the boat tried to push the boat with her legs as a reflex.

With the impact of collision the console of the boat belonging to LADY COPPELIA was broken up completely from its original place where it had been fixed with 4 bolts, and at the starboard side of the boat, ruptures were occurred and the boat floated on water at half sinking position. Scratches occurred at the starboard side of the boat belonging to SEYYALE and on the right wing of the outboard engine.

In the meantime, the younger sister who noticed that her elder sister fell into the sea, jumped into the sea to search her sister. Within a short time, the boat belonging to REGINA at the rear arrived at the boat belonging to LADY COPPELIA, which was at the accident scene. The boat, which belonged to SEYYALE, continued its way for a while. The father of the girls urged those who were onboard the boat belonging to SEYYALE to turn back, and then afterwards the boat of SEYYALE arrived at them within a short while. The younger sister, after a short research in the sea, reached her elder sister and tried to pick up her to the boat with the help of her mother. In the meantime, the elder sister, whom tried to be taken from the water to the boat, was complaining continuously that she was unable to take breath, and then she was transferred to the boat of SEYYALE together with her mother. Immediately afterwards, the captain of the boat belonged to LADY COPPELIA was found in the sea by the younger sister as semi-conscious and was delivered to the boat. The younger sister got on the boat and number of passengers on the boat became 7 in total and then the boat departed towards Bozburun. In the meantime, the boat belonging to LADY COPPELIA capsized. The owner of the boat belonging to REGINA towed the damaged boat with his boat and pulled it to rocky areas of Yeşilada and waited for arrival of help.

The captain of the boat of SEYYALE called the captain of the yacht MİNE which was at Bozburun port and requested his help; and then approximately within 3-5 minutes the boat arrived at the port of Bozburun. Having moored the boat just near the yacht MİNE, evacuation of passengers from the boat commenced. Except for the elder sister who suffered difficulty in breathing, others onboard the boat were evacuated and transported to the shore. Within approximately 15-20 minutes, ambulance and health care team arrived at the area where casualties were present. The captain of the boat belonging to LADY COPPELIA was injured from his right leg fingers and the younger sister was wounded from bottom of her left leg.

First medical aid was applied to injured persons at the port. Father of the sisters waited approximately 40 minutes at the island and later on was carried to the port of Bozburun by 2 fishing boats. When arrived at the port they saw that the injured passengers were not transferred to hospital yet. After a while, among the casualties the elder sister who suffered difficulty in breathing and the captain of the boat belonging to LADY COPPELIA were transferred by the same ambulance and the injured younger sister was transferred by private car to Marmaris State Hospital. The elder sister who suffered difficulty in breathing died on the way to the hospital.

# 1.4 Key Personnel

The person who was driving the boat which belonged to SEYYALE was 41 years old, and has been working at sea since 1996. He has been serving as a yacht captain for 8 years.

The captain of the boat of LADY COPPELIA was 78 years old, and has got an International Certificate for Operator of Pleasure Craft obtained from United Kingdom.

# 2. ANALYSIS

# 2.1 Safe Speed

According to the assessment received from the manufacturer firm in relation with speeds of the boats;

According to the arrangements of 50 High Trust Yamaha brand outboard engine and sitting order of passengers onboard the boat belonged to SEYYALE at the time of accident, it has been considered that the boat would easily make "aquaplane" (minimum friction position of the boat on the water) and under the ideal conditions would reach the speed of 30-35 knots.

According to the position of the Selva 25 brand outboard engine and sitting arrangement of passengers onboard the boat belonged to LADY COPPELIA at the time of accident, it has been stated that boat's ability of making "aquaplane" (shifting to water-skiing position) was very difficult. Therefore, it was stated that even if the correct distribution of the weight was achieved, the boat would reach maximum half displacement speeds, which however would be maximum 14-16 knots.

It has been assessed that it was impossible for MARÍNER 3,5 brand outboard engine approximately 2 meters long inflatable boat belonged to REGINA, moving together with the boat belonging to LADY COPPELIA, with two persons onboard whose total weight was approximately 120 kg. to make "aquaplane" (shifting to aquaplaning), and estimated that it would make maximum 6-7 knots speed.

On interviews with those who were onboard the three boats, it has been realized that the distance between the two boats, one belonged to LADY COPPELIA and the other belonged to REGINA, was approximately 25-30 meters or at least a short distance between them, almost proceeding at the same speed. Accordingly, it has been thought that the boat belonging to LADY COPPELIA would be expected to make speed up to the speed of the boat belonging to REGINA, and that such speed would be maximum 6-7 knots.

<sup>&</sup>lt;sup>1</sup> Switching of the boat to a minimum friction position on the water.

At the interviews conducted with the people who were onboard the boats, it was stated that collision happened at the moment just after when the boats noticed each other. Furthermore, the fact that breaking of the console, and occurrence of ruptures at the starboard side of the boat that belonged to LADY COPPELIA with the impact of collision, directs to an assessment that a strong collision happened. Additionally, the younger sister states that the boat belonging to SEYYALE passed over their boat by taking off after the collision and at that time she pushed the boat with her legs. She was injured from sole of her left leg and the console of boat belonging to LADY COPPELIA was broken off; this breaking should have possibly occurred as a result of contact when the boat belonging to SEYYALE was passing over the other boat; so these facts have been of a nature to verify and prove the accident casualties' statements. Consequently, this situation has been emphasizing the possibility that the speed of the boat belonging to SEYYALE was high enough to raise into the air a little bit after the collision and to pass over the boat belonging to LADY COPPELIA. Under these conditions, it is hereby thought that speed of the boat belonging to SEYYALE was approximately 20 knots and over.

However, as it is stated above, it is hereby pointed out that according to the engine power of the boat belonging to SEYYALE and sitting arrangements of passengers on the boat at the moment of accident, the boat belonging to SEYYALE would make plane (shift to sliding) easily, and that the boat belonging to LADY COPPELIA would hardly shift to aquaplaning position (water-skiing position) in accordance with the engine power and sitting arrangement of passengers on the boat. In this condition, since the bow of the boat belonging to SEYYALE would be a little bit above the sea and the bow of the boat belonging to LADY COPPELIA would be a little bit in the sea, it is hereby assessed that positions of the boats on the sea would be a factor to ensure and make contribution that the boat belonging to SEYYALE may pass over the boat belonging to LADY COPPELIA.

In Part B: Steering and Sailing Rules, Section I: Conduct of Vessels in any Condition of Visibility, Rule 6: Safe Speed of Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG) it is stipulated that "Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions." and it is also emphasized the need of factors such as the state of visibility, traffic density and the presence of background light should be taken into account.

In the light of assessments made above, it is thought that the overspeed was an important factor and cause in occurrence of this accident and resulting in collision of two boats. It is assessed that, if the boats were sailing at a lower speed, there would be enough time for them to notice each other and to react accordingly, and eventually results of the accident would not be that much tragic and fatal.

Whereas, there has not been any speed limit at the sea area where the accident happened. In this regard, rather than how fast it has been sailing, despite the fact that it would be necessary to keep the speed at a safe level compatible with the surrounding conditions, it is hereby considered that the boat belonging to SEYYALE was travelling at a speed over the safe speed level.

On the other hand, manufacturer firm of the boat belonging to SEYYALE advised that an engine with 39 HP should be attached. The power of the outboard engine of the boat belonging to SEYYALE however was 50 HP. Therefore, the boat was equipped with an outboard engine, the power of which was higher than the power advised by the manufacturer firm.



Figure 4. Craft identification plate of the boat of SEYYALE

# 2.2 Navigation Lights

According to COLREG (Rule No. 20) it is mandatory that all vessels must show their appropriate navigation lights from sunset to sunrise; and boats of which length's is shorter than 12 meters are required to show a white light visible from all directions and sidelights at the time of cruising. Due to the fact that this accident happened after the sunset, the boats involved in the accident must have turned on the mentioned navigation lights.

During investigations carried out on the boat belonged to LADY COPPELIA after the accident, it was witnessed that the boat had got sidelights, but did not have a light visible from all directions (Figure 5). The console on which the sidelights are installed was damaged due to collision therefore, whether the lights were working or not could not also be determined. On the other hand, if it is assumed that sidelights were on, taking into account the sitting positions of the casualty sisters who were sitting in front of the boat belonged to LADY COPPELIA before the accident, there would be the possibility that they could likely prevent the other vessels to see the sidelights.



Figure 5. Inflatable boat of the private boat LADY COPPELIA

Likewise, upon investigations conducted after the accident, it was seen that sidelights were not available on the boat belonging to SEYYALE, but there was a white light and a flashing light visible from anywhere (Figure 6). On the other hand, it has been observed that position of the white light visible from anywhere was not at least 1 meter higher from the sidelight in accordance with the requirements of Annex I: Positioning and Technical Details of Lights and Shapes, 2. Vertical positioning and spacing of lights (d) of COLREG.

Both the passengers of the boat belonged to SEYYALE and the passengers of the boat belonged to LADY COPPELIA, stated that the navigation lights were turned on during their cruising. Additionally, those who were onboard the boat belonging to SEYYALE expressed that flashing light behind the cell phone was also turned on. However, during interviews conducted, this fact could not be verified by the counterparty.

Within the context of the evets mentioned above, even if it has been concluded that the both boats did not exhibit their navigation lights which were mandatory to be shown, it is impossible to determine whether aids to navigation available on the boats were at operating state and whether they were active before the collision on the basis of the present information and documents.



Figure 6. Inflatable boat of commercial yacht SEYYALE

#### 2.3 Look-out

It is stipulated at COLREG Rule 5: Look-out that: "Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision."

In this respect, as the cruising performed under the night conditions, it must be observed that helmsmen (person who steers the boat) should take into consideration the following factors:

- Possibility of presence of vessels which were not equipped with necessary navigation lights and visibility of vessels was less on night conditions than the day conditions,
- Deceptive effects of background lights (reflecting from the coast),
- Cruising in the months of summer, at the region on which more dense maritime traffic is prevailing.

Furthermore, on the day which the accident happened sunset was at 19:21 and moonrise occurred at 20:52 in local time; so the accident happened between the said two time zone, at a time very close to the moonrise. Eventually, the moment that the accident occurred coincided with the darkest moment of the day.

As the results of assessments made above, it is hereby thought that speed of the boat belonging to SEYYALE, the fact that the both boats were not equipped with navigation lights fully in accordance with COLREG and that the time when the accident occurred coincided with the time between the sunset and the moonrise have had a negative effect on the effective look-out.

# 2.4 Head-on Situation

The boat of SEYYALE and the boat of LADY COPPELIA collided while they were passing from the west of Yeşilada located at the south of Bozburun Port. The collision occurred along the starboard bow of the boat of LADY COPPELIA and along the starboard side, including starboard propeller of the outboard engine of the boat of SEYYALE.

Rules pertaining to the acts and behaviors of boats which see each other are set forth in COLREG and the rules that which boat shall give way to the other boat and their tasks undertaken by the vessels in order to prevent collision have been listed. In this context, head-on situation is regulated at Rule 14: Head-on Situation of COLREG and provision of paragraph a states that: "When two power-driven vessels are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of the other." and Rule 15: Crossing Situation states that "When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel."

In the light of the interviews carried out with passengers onboard the boats and the damages occurred on the boats, it has been guessed that the collision happened almost bow to see one another at their starboard side.

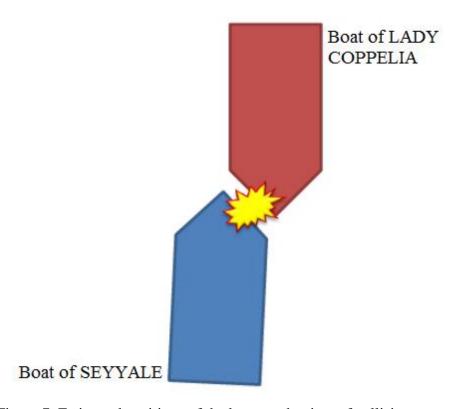


Figure 7. Estimated positions of the boats at the time of collision

The captain of the boat of SEYYALE stated that when he had noticed the other boat coming from the opposite, in order to avoid collision he maneuvered towards the port, but the captain of the boat of LADY COPPELIA could not make any maneuver. In this respect, in case that the captains of both boats had noticed each other earlier, they must have altered their course to starboard side to ensure safe passage.

Nevertheless, until immediately before the collision both boats did not notice one another, therefore they were unable to make the appropriate maneuver in accordance with the provisions of COLREG. On the other hand, it seems impossible to determine the fact that "if the captain of the boat of SEYYALE had made maneuver towards the starboard side instead of port side, or if the captain of the boat of LADY COPPELIA had made maneuver towards the starboard side, could it be possible that accident might have been prevented".

# 2.5 Narrow Channels

Likewise, Rule – 9 of COLREG sets forth the provisions which emphasizes that vessels crossing through the narrow channels must observe and abide by, and states that, "A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable."

As it is previously also stated, it is pointed out that after the accident the boat that suffered a damage which belonged to LADY COPPELIA was towed by the boat belonged to REGINA and brought at the rocky area of Yeşilada and security measures were taken. Starting from this point of view, it has been thought that collision of the two boats could have been occurred at a point which was closer to Yeşilada, rather than the mainland. Under the given conditions, pursuant to the rules of straits (narrow channels), the boat of LADY COPPELIA should have been cruising close to coast of the mainland, not to Yeşilada.

However, although it has been understood that the collision happened at a point close to Yeşilada, since it is impossible to confirm and verify the information in hand from other sources, it is unknown at which exact coordinates the collision occurred and positions of the boats at that time. Hence, the analysis made under the headline "Narrow Channels" is just an interpretation of information in hand, and an exact judgement can not be made.

# 2.6 Speed Limit

Within the administrative borders of Marmaris Harbor Master, speed limit has been imposed at Marmaris Bay, which has been determined as 10 knots (nautical mile). However at the area where the accident occurred, no speed limit has been imposed. Imposition and control of speed limit will not be so easy due to the such reasons as lack of technical infrastructure and personnel.

Nevertheless, even if speed limit had been imposed at the sea area where the accident occurred, perhaps it would have not been possible to avoid this accident. However, it is assessed that availability of speed limits would likely reduce risks of accident.

# 2.7 Life Saving Appliances

Although it is not mandatory, none of the passengers on boats wore lifejacket and these people were not prepared fully against possibility of an emergency situation. After the accident, captain of the boat of LADY COPPELIA was rescued from the sea as injured and semi-conscious and the elder sister was rescued as injured. Eventually, in the event that should there not be anybody to help for rescue, the casualties would have possibly faced with the danger of drowning. Therefore, it is assessed that wearing a lifejacket would lessen and eliminate dangers and risks that may arise after the accident.

# 2.8 Service Boats and Life Saving Appliances

The boat belonging to LADY COPPELIA, which was involved in the accident, has been used as the service boat and the boat belonging to SEYYALE, has been used as the service boat and life-saving boat for the commercial yacht. According to the legislation in force, although it is not mandatory, service boats can be possessed by vessels, and in cases of possession of lifeboat are mandatory, these service boats can also be used as lifeboats. Details in relation with these issues are indicated under the heading of "Life Saving Appliances" by inserting them into Certificate of Seaworthiness.

However, there is no definition of service boat in the legislation, and rules and procedures related with its use have not been determined. Nevertheless, in general, service boats are used for the purpose of carrying people and/or goods from the shore to the vessel or from the vessel to the shore. According to the definitions of the type of vessels for register of ships which was published by Directorate General of Sea and Inland Waters Regulation, "vessels not used for agency service and vessels carrying personnel or materials to ships and plants offshore or from ships and plants to shore and operated by these plants' or ships' owner or operator." has been defined as service motor. Accordingly, in terms of utilization of service boats, it is realized that, in fact, they are service motor. In this context, some assessments related particularly with service boats have been come up, and such assessments are listed as follows:

- 1. Service boats are not registered like the service motors, and when service boats used by commercial vessels as the lifeboat at the same time, information only about the number and total people carrying capacity is provided under the heading "Life Saving Appliances".
- 2. When service boats for commercial vessels are used at the same time as the lifeboats, in fact, a life saving boat has been used also as the service boat, therefore the situation occurs that a life saving boat, which is required to be ready for service at any moment, was used for different purposes.
- 3. In the event that service boat is used only for the purpose of service, then, registration of it is not necessary; and accordingly, the service boat is not also subjected to any inspection and control.
- 4. Under the present conditions, only the name of a registered vessel is written on a boat and this boat is named as the service boat; and this service boat can be used on territorial waters without the need for further registrations.
- 5. Private Boat has been described in the Regulation on Outfitting/Equipping, Registration and Certification of Private Boats and Competences of persons who will use Private Boats as follows: "boats/vessels which are used exclusively in such activities as excursion, entertainment, sports and amateur fishing without commercial purpose, whose length (LH) is not less than 2,5 meters and not more than 24 meters in accordance with the national standards, and owned by Nationals of the Republic of Turkey, owned by real persons foreign nationals/citizens who obtained residence permit in Turkey, owned by the Turkish Associations and

Foundations which are engaged in water sports." Pursuant to the above mentioned Regulation, private boats/vessels have been excluded from the annual inspection and auditing unless requested by the boat/vessel owner, a Private Boat/Vessel Certificate is issued and registered in the Ship's Register Log. Therefore, because the fact that private boats/vessels are exempt from periodic inspections, all equipment and hardware, including service boats onboard the boats/vessels have not been regularly checked and inspected.

6. The manner and procedure concerning application and implementation of the above mentioned issues for the service boats belonging to the foreign flag private boats/vessels is a disputable and argumentative issue.

Within the context of issues mentioned above, being aware of the fact that utilization of such boats increasing specifically in summer months, it is hereby considered that necessary arrangements are required.

# 2.9 First Aid and Ambulance Services

Although it has not any relation with the occurrence of the accident, at the interviews conducted either with the accident casualties or with those who helped the casualties at Bozburun Port after the accident, it has been stated that healthcare team acted slowly in transferring the casualty to Marmaris State Hospital, who suffered difficulty in breathing in the ambulance and later on died. Even if the medical team was warned that the person who died after the accident, might have suffered internal bleeding and much more serious health problems, medical team treated the other two persons who were injured from their legs, and they pointed out that the injured person whose condition was serious would have resulted from the shock of the accident.

In the medical report related with the issue, there was not any investigation and analysis, and it was thought that it would be proper to make necessary investigation and assessment by the Ministry of Health; while first aid and ambulance services are crucial and have a vital importance, it has been thought and considered that the investigation and research of the present exemplary case would be beneficial.

# 3. CONCLUSIONS

- 1. Speed of the boat belonging to the commercial yacht SEYYALE, comes at the forefront of the main factors for the occurrence of the collision. [2.1.]
- 2. Neither of the two boats has been equipped with navigation lights as required by COLREG [2.2.]
- 3. The speed of the boat belonging to SEYYALE, failure in equipping the both boats with navigation lights in conformity with COLREG in full and the moment that accident occurred coincided with the time between the sunset and the moonrise have made a negative effect on the effective look-out. [2.3.]
- 4. Speed limit for sea-going vessels has not been imposed at the area where the accident occurred. [2.6.]
- 5. Passengers onboard the boats did not wear lifejackets and the boats were not equipped with life-saving equipment. [2.7.]
- 6. Principles and procedures related with the use of service boats have not been determined. [2.8.]

# 4. RECOMMENDATIONS

# To: The Directorate General of Sea and Inland Waters Regulation

**1.** Studies required for determination of procedures and principals for steering of service boats are to be carried out and gaps in the legislation in this regard are to be eliminated.

**2.** Coordination with the Coast Guard Command is to be ensured and inspection and along the coasts of Turkey, auditing of the recreational crafts/watercrafts which are not equipped with mandatory navigation lights is to be increased.

**3.** The matter related with imposition of speed limits within the administrative borders of the Harbor Masters are to be considered and assessed.

# To: The Directorate General of Shipyards and Coastal Structures

**1.** Studies required for determination of procedures and principals for steering of service boats are to be carried out and gaps in the legislation in this regard are to be eliminated.

#### To: Harbor Master of Marmaris

1. To increase conformity inspections of navigation lights of boats/vessels cruising within the administrative borders of the Harbor Master according to COLREG and in terms of their cruising at safe speed in coordination with the Coast Guard Boat Commands on duty at the area.

# To: The Ministry of Health

1. As it was pointed out that the transfer of the accident casualty to hospital who died as the result of this accident was made in delay, within this context, investigation regarding the first aid and ambulance service is to be carried out.