



2020
MARINE CASUALTIES
AND INCIDENTS









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1. INTRODUCTION

The State Marine Accident Investigation Commission (SMAIC) established by the Act of 31 August 2012 on State Marine Accident Investigation Commission¹ hereinafter referred to as the Act, commenced its operations in May 2013 upon the appointment by the Minister of Transport, Construction and Maritime Economy of a third one of the statutory five members of the Commission.

The investigation of marine casualties and incidents has been conducted by the Commission under the Act and the Code of International Standards and Recommended Practices for the Investigation of Marine Casualties and Incidents (Casualty Investigation Code) adopted by the Maritime Safety Committee (MSC) of the International Maritime Organisation (IMO)².

The purpose of the investigation of a marine casualty or incident is to determine its causes and circumstances in the prevention of marine casualties and incidents in the future and to improve state of the safety at sea.

In the course of investigation, the Commission determines neither liability nor apportions blame to persons involved in the marine casualty or incident and the investigation reports shall be inadmissible in any judicial or other proceedings, purpose of which is to attribute blame or liability for the casualty referred to in the report. It means that none of the organs adjudicating in such proceedings can refer to the information included in the report of the Commission.

The Commission is required by law to investigate each very serious and serious casualty.

A very serious marine casualty is an accident that resulted in total loss of a vessel, a human death or a severe damage to the environment. A serious marine casualty is an accident that results, among others, in the damage to the propulsion of a vessel, extensive damage to the superstructure, changes in the vessel's stability, a damage to the underwater part of the hull causing the vessel to pose a threat to the safety of persons or the environment, making it unsuitable for continuing the journey. A serious casualty is also the one that causes damage to the environment, including pollution or a failure resulting in the need to tow the vessel or to apply help from the land.

¹ Act of 31 August 2012 on the State Marine Accidents Investigation Commission (Journal of Laws of 2019, item 1374 of 24 July 2019)

² Resolution MSC.255(84) – Adoption of the Coded of the International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident (Casualty Investigation Code).





In the event of a serious marine casualty, the Commission may discontinue the investigation after a preliminary assessment of the reasons for its occurrence. In the event of a *less serious marine casualty* or *marine incident*, the Commission decides to undertake the investigation or to desist from it. When making the decision, the Commission shall consider the gravity of the occurrence, the type of a vessel or cargo, and whether the results of the investigation shall contribute to the prevention of marine casualties and incidents in the future.

The Commission investigates marine casualties and incidents involving vessels of Polish affiliation, and vessels of foreign affiliation - if the casualty has occurred on Polish internal waters or territorial sea. The Commission is obliged to undertake the investigation in relation to which Poland is a substantially interested state, i.e. in a case in which Polish sailors died in the casualty.

It should be emphasized that after the SMAIC has received a notification about the casualty involving vessels in any way, a WIM Card is prepared (Marine Casualty/Incident Information Card) with a serial number containing basic data about the event.

In each case, the Commission undertakes the actions necessary to make a preliminary assessment of the causes of the casualty, and based on the collected materials, under the above mentioned legal acts, takes the decision on not to investigate, on withdrawal from the investigation or its continuation.

The actions of the Commission conform to the regulations of the Act and the rules of the SMAIC Statute³.

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³ ORDER No. 23 of the Minister of Maritime Economy and Inland Navigation of 26 June 2018 on the statute of operation of the State Marine Accident Investigation Commission and its seat.





2. INFORMATION ABOUT THE COMMISSION

SMAIC has been working since 01.01.2020 in the following composition:



Master Mariner Tadeusz Wojtasik – Chairman of the Commission



Master Mariner Grzegorz Suszczewicz – Vice Chairman of the Commission



Master Mariner Marek Szymankiewicz – Secretary of the Commission



Chief officer Monika Hapanionek – Member of the Commission

In 2020, no personal changes to the composition of the Commission took place.





The State Marine Accident Investigation Commission is an independent body. It acts at the Minister competent for the maritime economy. It is not an organisation unit of the Ministry of Infrastructure. It is also not an organization unit subordinate or supervised by the Minister of Infrastructure.

Since 01.06.2017 Szczecin has been the seat of the Commission (Order No 12 of the Minister of Maritime Economy and Inland Navigation of 15 March 2017).

The mailing address and contact data of the Commission are the following:

Pl. Stefana Batorego 4, 70-207 Szczecin phone: 91 44 03 290,

e-mail: pkbwm@pkbwm.gov.pl

www.pkbwm.gov.pl

emergency phone: 664 987 987 (24 h)



3. ANALYSIS OF MARINE CASUALTIES AND INCIDENTS SUBMITTED IN 2020

3.1. Notifications of the casualties and incidents in 2020

In 2020, the Commission was notified of **109** marine casualties and incidents.

Following the initial analysis of the notifications, the Commission considered that:

- in **19** cases the events had not met the criteria of a marine casualty contained in its definition included in art.2.1.1 of the SMAIC Act ⁴.
- in **40** cases the casualties were not investigates due to the provisions of art. 15.2 of the SMAIC Act⁵.
- in **50** cases the Commission initiated further investigations of marine casualties and incidents.

3.2. Specification of marine casualties and incidents according to their type.

The **50** cases under investigation consisted in:

- 4 very serious casualties (B),
- 11 serious casualties (P),
- 21 casualties (W),
- 14 incidents (I).

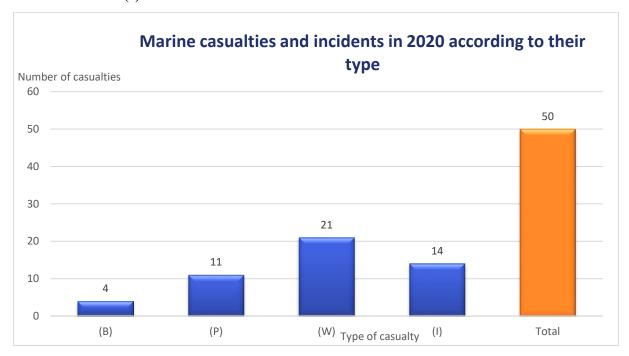


Figure 1. Specification of a number of marine casualties and incidents by type in 2020

⁴ The content of the footnote can be found in the Excerpts from the Regulations

⁵ The content of the footnote can be found in the Excerpts from the Regulations



3.3. Specification of marine casualties and incidents according to ship type and flag.

There were totally 4 vessels participating in 4 very serious marine casualties, 3 of which sank (2 recreational sailing yachts and 1 fishing boat).

There were totally **54** vessels involved in the marine casualties and incidents under investigation.

These included the following:

Merchant vessels:

- 8 general cargo vessels,
- 4 bulk carriers.
- 3 container ships,
- 1 Ro-Pax vessel,
- 2 chemical carrier,
- 2 tankers,
- 2 gas carriers,
- 4 passenger ships,

Fishing vessels:

- 1 fishing boat,

Yachts:

- 4 recreational sailing yachts,
- 6 recreational motor yachts,

Service vessels:

- 9 tugboats or towing units,
- 2 dredgers,
- 5 other service vessels,

Inland vessels:

- 1 inland passenger ship,

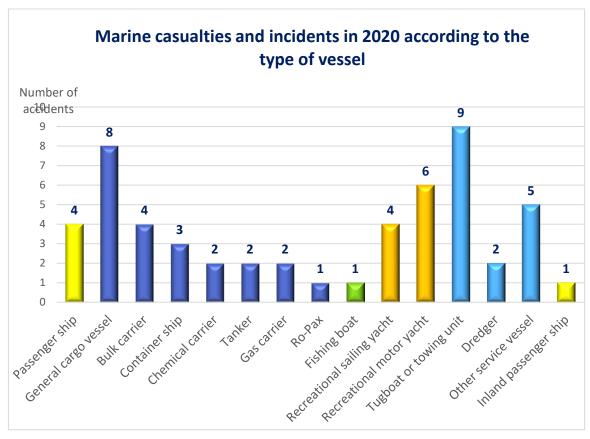


Figure 2: Specification of marine casualties and incidents in 2020 according to the type of vessel





Specification of 54 vessels according to the flag:

- 21 vessels under the flag of Poland (PL),
- 5 vessels under the flag of Cyprus (CY),
- 4 vessels under the flag of Malta (MT),
- 3 vessels under the flag of Portugal (PT),
- 3 vessels under the flag of Antigua
- 2 vessels under the flag of Germany (DE),
- 2 vessels under the flag of Liberia (LR),
- 2 vessels under the flag of the Commonwealth of the Bahamas (BS),
- 2 vessels under the flag of Norway (NO),

and Barbuda (AG),

- 1 vessel under the flag of the Marshall Islands (MH),
- 1 vessel under the flag of Panama (PA),
- 1 vessel under the flag of Denmark (DK),
- 1 vessel under the flag of Sweden (SE),
- 1 vessel under the flag of Great Britain (GB),
- 1 vessel under the flag of Greece (GR),
- 1 vessel under the flag of Russia (RU),
- 1 vessel under the flag of St. Vincent (VC),
- 1 vessel under the flag of Vanuatu (VU),

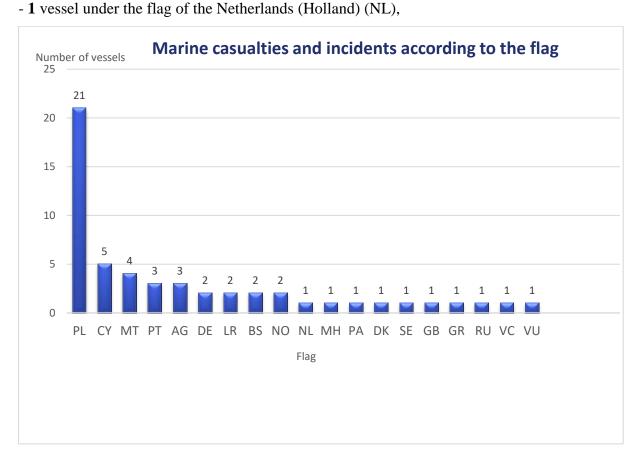


Figure 3: Specification of 54 vessels according to the flag



3.4. Specification of marine casualties and incidents according to human involvement (occupational accidents)

In effect of **4** very serious marine casualties **2** people died. All victims were crew members of the vessels.

Generally, in all 50 investigated cases, 28 crew members had accidents.

The extent of the loss of health was different and so:

- 2 persons died,
- 6 persons had serious accidents requiring treatment of more than 3 days (72 hours),
- 9 persons were injured,
- 11 persons were not injured,

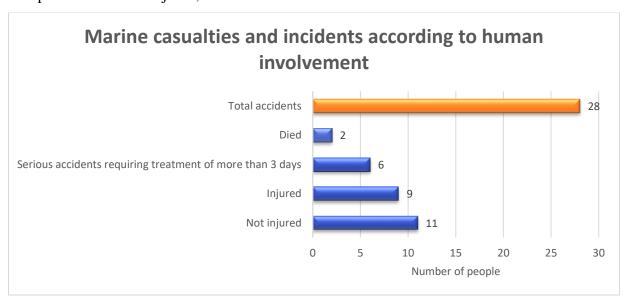


Figure 4. Specification of marine casualties and incidents according to human involvement

3.5. Specification of marine casualties and incidents according to the place they occurred.

50 marine casualties and incidents occurred in the following places:

- 5 at high sea (over 12 Nm from shore),
- 3 at coastal waters,
- 26 in Polish ports:
 - 7 in Gdynia,
 - 5 in Gdańsk,
 - 3 in Świnoujście,
 - 2 in Szczecin,
 - 9 in other ports,



- 4 at roadsteads of Polish ports:
 - 2 at the roadstead of Gdynia,
 - 1 at the roadstead of Gdańsk,
 - 1 at the roadstead of Świnoujście,
- 5 at Polish internal waters,
- 7 at foreign roadsteads and ports.

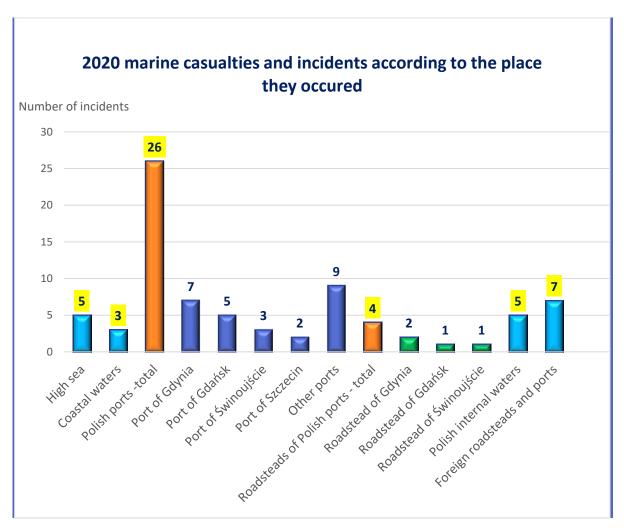


Figure 5. Specification of marine casualties and incidents according to the place they occurred

3.6. Specification of marine casualties and incidents according to the cause.

From among **50** cases examined, the causes of marine casualties and incidents were the following:

- technical reasons (15):
 - 7 engine or ME control failures (main propulsion engine),





- 2 hull leakages,
- 2 damaged plank in shell plating,
- 1 steering system failure,
- 1 engine explosion,
- 1 leaking valve,
- 1 dislocation (displacement) of pilot ladder,
- hydro-meteorological reasons (3):
 - 1 strong wind blow,
 - 1 strong yacht drift,
 - 1 sudden heel during storming,
- human errors (26):
 - 7 cases of a lack of caution during manoeuvres,
 - 7 lack of crew attention at work,
 - 4 cases of slipping on board or in other place,
 - 2 failure to observe safety rules at work,
 - 1 case of navigation error,
 - 1 case of lack of attention, poor observation during navigation,
 - 1 passing in too close proximity to a moored vessel,
 - 1 incorrect handling of steering system,
 - 1 careless operation of a port crane,
 - 1 malpractice during landing,
- 1 case in which the cause could not be determined,
- 5 cases are undergoing investigation,



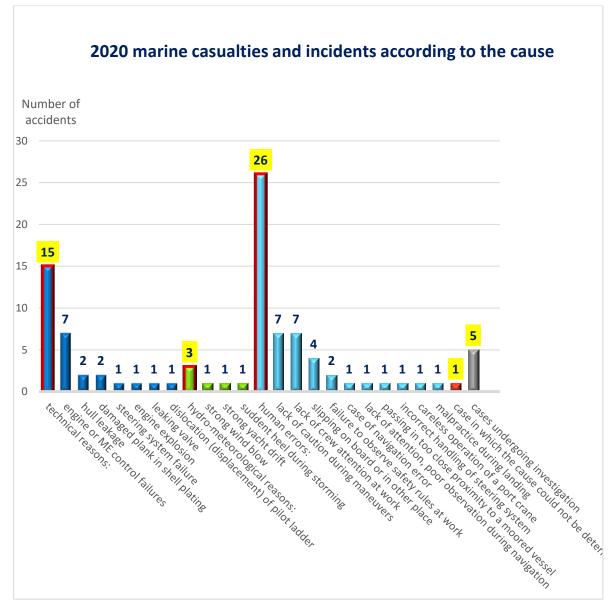


Figure 6. Specification of marine casualties and incidents according to the cause

3.7. Assessment of the justification for continuation of investigations.

From among **50** marine casualties and incidents reported in 2020 and initially investigated, after collecting the necessary information and evidence, the Commission adopted the resolutions - taking into account the severity of the occurrence, the type of ship or cargo, and the belief that the results of the investigation would not contribute to the prevention of marine casualties and incidents in the future - that:



- in **5** cases, it withdraws from the investigation under way pursuant to Art.20.2 ⁶ of the act on SMAIC,
- in 32 cases, it withdraws from the investigation pursuant to Art.20.3 ⁷ of the act on SMAIC. The Commission decided that in 13 reported cases an investigation would be conducted. In consultation with other states substantially interested in the investigation of some of the above-mentioned accidents, the Commission on the basis of art.21 ⁸ of the act on SMAIC, has decided that:
- 8 cases of investigation are being conducted independently:
 - WIM 021/20 Wakacyjna Frajda
 - WIM 025/20 Betty Mariel
 - WIM 041/20 Norman
 - WIM 050/20 Uran
 - WIM 065/20 Viking III
 - WIM 072/20 Sharki
 - WIM 102/20 Enduro Trader
 - WIM 109/20 Leikvsering
- 1 case of investigation is being conducted with the participation of a substantially interested state:
 - WIM 033/20 X-Press Mulhacen (Malta)
- is joining 4 cases of investigation conducted by other states:
 - WIM 016/20 Fairplay 33 (Antigua and Barbuda)
 - WIM 024/20 Mount Everest (Malta)
 - WIM 094/20 W.B. Yeats (Cyprus)
 - WIM 097/20 Maersk Launceston (Portugal)

4. INVESTIGATION OF ACCIDENTS IN 2020

4.1. Publication of accident investigation reports.

The year 2020 was started by the Commission with **18** ongoing investigations of the accidents that had taken place in 2019.

It is necessary to add **13** marine casualties, which occurred in the period of 01.01.2020 – 31.12.2020.

⁶ The content of the footnote can be found in the Excerpts from the Regulations

⁷ The content of the footnote can be found in the Excerpts from the Regulations

⁸ The content of the footnote can be found in the Excerpts from the Regulations



During 2020, the Commission completed investigations of **18** marine casualties and published final reports, including **3** investigations conducted by other states. In the event of **3** very serious marine casualties (WIM 35/19, 49/19 and 112/19) and **1** serious marine casualty (WIM 65/19) the Commission published an interim report, followed by the final report (dates of publication as in the table below).

Table 1 Publication of reports in 2020

No	XX/IX/	Veccel	Data	Publishing date			
No.	WIM	Vessel	Date	Interim report	Final report		
	Own investigations						
1.	03/19	Bielik IV	09.01.2019		February 2020		
2.	24/19	fishing cutter UST-31 and fishing cutter Ancilla WŁA- 68	17.04.2019		April 2020		
3.	39/19	fishing boat KUŹ-102	13.05.2019		April 2020		
4.	41/19 72/19	fishing cutter JAS-57 Magdalena*	29.05.2019 and 11.07.2019		April 2020		
5.	28/19	angling boat PW-WEJ-1891-A	28.04.2019		May 2020		
6.	35/19	fishing boat ŚWI-82	14.05.2019	May 2020	August 2020		
7.	54/19	sailing yacht Xela	22.06.2019		May 2020		
8.	49/19	sailing yacht SXK 6777	10.06.2019	June 2020	July 2020		
9.	65/19	fishing cutter WŁA-184 Helot	05.07.2019	July 2020	November 2020		
10.	89/19	pushed train: Atlant 1 pusher tug and Ulan 72 barge	31.07.2019		July 2020		
11.	112/19	sailing yacht Lilla W	15.09.2019	September 2020	October 2020		
12.	123/19	fishing cutter KOŁ-212**	21.10.2019		October 2020		
13.	137/19	survey motor boat Sonia and working raft PH-SH-2	13.12.2019		December 2020		
14.	139/19	Motor yachts: Hunter and Amelia Max	20.12.2019		December 2020		
		Investigation cond	ucted by other	r states			
15.	144/19	m/v Fast Jef	11.11.2019		March 2020		
16.	040/19	m/v Seatruck Progress	15.05.2019		June 2020		
17.	032/19	Gryf ro-ro passenger ferry	04.05.2019		August 2019		

^{*} Investigation of both casualties was combined and a joint final report was published

^{**} Report 123/19 was published as a simplified report.



The Commission has not completed the investigation of 13 accidents that occurred in 2020, of which 17 cases of investigation have been conducted independently, including 1 independent investigation in cooperation with a significantly interested state (Malta) and joins the investigation of 4 casualties conducted by other countries (Antigua and Barbuda, Malta, Cyprus and Portugal).

4.2. Safety recommendations based on accident investigations completed in 2020

In order to emphasize the educational mission of the SMAIC, the Commission considered that the annual analysis should recall the most serious marine casualties investigated in 2020. The excerpts from the reports including the recommendations aimed at increasing safety of navigation are presented below. For each case in question, a WIM number is provided to facilitate the search of the report on the SMAIC website (www.pkbwm.gov.pl).

4.2.1. WIM 03/19 Bielik IV ferry

Loss of manoeuvrability, ferry drift and the need for its towing resulted from failure of the main propulsion engine of this ferry. The auxiliary engine of five times lower capacity comparing to the ME capacity, powering only one of the propellers and short anchor chains comparing to the ferry operating area combined with atmospheric conditions posed a threat to the vessel's safety.

Recommendations resulting from the final report WIM 03/19 –Bielik IV ferry.

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which were proposals for actions that may contribute to the prevention of similar accidents in the future, to the following entities.

1. Operator of the passenger and vehicle ferry Bielik IV – Budgetary Division, Żegluga Świnoujska Sp. z o.o.

With regard to the performed analysis and its effects, the Commission states that operation of the ferry at wind speed of 11 m/s (5° B) and above is associated with actual threat to the safety of ferry and its passengers in the case of failure of main propulsion engine and loss of manoeuvrability.

With regard to the above, the Commission, recommends consideration of modernisation of a bow anchor device by extension of anchor chain to 3 shackles. In the case of wind speed increase up to 11 m/s and above, having a tugboat on stand-by able to provide immediate help or suspending the ferry crossings until the wind speed decreases.



4.2.2. WIM 24/19 fishing cutter UST-31 and fishing cutter Ancilla WŁA-68

Following the investigation, the Commission concluded that the direct cause of collision of the UST-31 and Ancilla WŁA-68 fishing cutters was:

- 1. Moving on water with working lights on in front of the superstructure limiting the observation of other ships' movement,
- 2. Non-use or misuse of other technical devices (AIS, radar) to detect and assess the risk of collision with other units,
- 3. Uncertain manoeuvres in the event of excessive approach.

Bad maritime practice, which is insufficient attention during observation and routine incompatible with International Regulations for Preventing Collisions at Sea (COLREGs), is the most common cause of collisions. The accident described is not an individual event. The issue of observation and the manner of action taken in the event of a collision risk was raised in the previous reports of the SMAIC.⁹

Recommendations resulting from the final report - WIM 24/19 fishing cutter and UST-31 and fishing cutter Ancilla WŁA-68.

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which are proposals for actions that may contribute to the prevention of similar accidents in the future, to:

1. Operator.

In the light of the investigation, the Commission concludes that it is bad practice to carry out night work on board using work lights when the fishing cutter is on its way. At the same time, the Commission believes that the construction of the roof above the deck [photo 7, photo 8] limits visibility and through the windows of the bridge.

In this regard, the Commission recommends:

- considering the modernization of the existing main deck development to improve the scope of visibility from the cutter control site,
- development of procedures regulating the manner of conducting work on board using work lighting (work after dusk).
 - 2. Maritime Office in Gdynia, Maritime Office in Szczecin

The Commission recommends during periodic inspections of fishing vessels to carry out checks on the possibility of observing from the place of management of vessels to comply

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⁹ Final Report of SMAIC WIM 32/18, WIM 51/18 and WIM 92/18



with the provisions of the International Convention for the Prevention of Collisions at Sea referred to in this REPORT and local law, if applicable.

3. Polish Register of Shipping

The Commission recommends that whenever the ship's deck structure changes, which may introduce visibility restrictions from the place of operation, the classifier should be approved by the competent maritime administration authority prior to approval of the draft amendment.

4.2.3. WIM 39/19 - fishing boat KUŹ-102

Following the investigation, the Commission concluded that the casualty occurred in effect of the following factors:

- -inappropriate place for going out from a low boat onto high quay.
- -prohibited use of facilitation in the form of provisionally fixed plank step that posed a threat when going ashore.
- -high weight of a crew member wearing the rubber waders filled with water, which resulted in its poor mobility.
- -no competences of a crew member of the fishing vessel.

Upon inspection of the Kuźnica harbour, the representatives of the Commission recorded no lower quays or jetties for walking in and out of low fishing vessels moored in the harbour.

Recommendations resulting from the final report WIM 39/19, KUŹ-102 fishing boat.

With regard to the risk of casualties in the Kuźnice sea harbour for the crew members of low-side small vessels when going out of high quays, the State Marine Accident Investigation Commission refers its recommendations to:

1. Minister competent for maritime economy.

When performing any and all modernisation works in ports and harbours dedicated to small vessels, the designs of construction or modernisation must contain the solutions ensuring safe mooring of these vessels, regardless of change of water level in the port or harbour.

2. Head of the Maritime Office in Gdynia

The State Marine Accident Investigation Commission proposes consideration of assembly, at the dedicated quays in the Kuźnica harbour, of low pontoon piers (concrete or wooden), position of which in relation to the quay would change along with the water level in the basin.

Their adequately low height would enable safety going out from the low-side vessels as well as reaching the quay in safe manner, as in the other sea harbours.



4.2.4. WIM 41/19 – fishing boat JAS - 57 Magdalena

Following the investigation,, the Commission concluded that the cause of the fatal accident of the motorman of the JAS 57 Magdalena cutter on 29 May 2019 during a stop at the port of Władysławowo was an electric shock resulting from a combination of four elements:

- improperly made electrical installation;
- lack of the as-built documentation of the changed electrical installation and operating instructions for the converter for the crew;
- unacceptable damage to the electrical installation resulting in the reduction of the insulation resistance of electrical devices supplied from 230V, 50Hz circuits;
- attempts to connect power from the shore directly through the converter not being aware of existing hazards related to the electrical installation in place.

In addition, the accident was caused by:

- insufficient supervision of the classification society over the reconstruction of the vessel in the part regarding changes made to the electrical installation, in particular setting up new devices without approval, lack of as-built documentation and instructions for the crew;
- limited scope of training of the engine crew of the fishing vessels in the field of electrical engineering and maritime electronics, especially when the motorman is the only member of the engine crew and operates all electrical appliances on board;
 - late hour and fatigue of the entire crew or malaise in case of one of the victims.

Recommendations resulting from the final report WIM 41/19 – fishing boat JAS - 57 Magdalena

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which are proposals for actions that may contribute to the prevention of similar accidents in the future, to:

1. Classification Society – Polish Register of Shipping S.A. seated in Gdańsk.

The Commission has recommended:

- to familiarize the employees with this report;
- to analyze and possibly change the regulations regarding electrical installations on small seagoing vessels, taking into account limited staffing as well as knowledge and experience of the crew on small vessels;
- to assess the principles of issuing PRS authorization to companies and monitoring the work performed;
- to additionally verify the existing electrical installation on small seagoing vessels for compliance with PRS requirements as part of the existing survey system.



4.2.5. WIM 28/19 – fishing boat PM-WEJ-1891-A

The Commission concludes that the causes of capsizing of the boat no. PM-WEJ-1891-A was most probably getting of a one of both anglers up to the standing position and moving towards the side. The additional factors increasing the possibility of capsizing could include swaying, sudden turn of the boat and operation. The anglers, after falling into water, were unable to notify anyone of their critical situation. They had no additional communications and signalling devices.

Due to late provision of information on the missing anglers to the Maritime Search and Rescue Center, there were no chances to rescue them.

Recommendations resulting from the final report WIM 28/19 – fishing boat PM-WEJ-1891-A

With regard to information received during consultations on the content of the report that, under its educational activities, the Ministry of Maritime Economy and Inland Navigation, intends to commence the works on updating the "Guidebook for sailors and yacht operators" in near future, the State Marine Accident Investigation Commission withdrew from recommendations. However, the Commission considered it appropriate to form the following recommendation.

1. Recommendations for the users of small recreation vessels navigating on maritime waters.

The State Marine Accident Investigation Commission appeals to the users of small recreational and sports vessels navigating on maritime waters on maintaining due care and caution during navigation. Small vessels of low range of stability are of particular risk during unfavourable weather conditions. It should be remembered that the level of threat to navigation safety during navigation on sea waters is much higher comparing to inland waters.

The Commission proposes to read the Ordinance of the Minister of Transport, Construction and Maritime Economy of 28 February 2021 on safe navigation by maritime yachts¹⁰. Although the scope of provisions of this Ordinance covers no vessels up to 5 m in length, the safety recommendations and guidelines should be followed.

Use of boats with a view to their compliance with the safety standard, including in particular the range of stability, should be considered.

This information is provided on the rating plate affixed onto the boat. Absence of plate prevents stating, whether a given vessel complies with the baseline safety standards.

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¹⁰ Journal of Laws of 2016, item 1557



Use of poorly constructed boats on maritime waters, lack of equipping the boat in the required or recommended safety measures and primarily lack of communication devices protected against contact with water may – sooner or later – end with drowning of crew members and human tragedies.

4.2.6. WIM 54/19 – sailing yacht "Xela"

The Commission concluded that the cause of intoxication of the yacht crew was most probably hydrogen sulphide damaged releasing from a damaged battery. In addition, the health condition of crew was affected by strong swaying of the yacht at unfavourable course of the yacht against the storm wave and withdrawal from standing in drift until the unfavourable weather conditions change.

Recommendations resulting from the final report WIM 54/19 – sailing yacht "Xela"

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which are proposals for actions that may contribute to the prevention of similar accidents in the future, to:

1. Minister Competent for Sport

The Commission recommended considering the change of the requirements for the rank of a Marine Yacht Helmsman by increasing the internship requirements by at least 12 hours of sailing in winds equal to or stronger than 6°B6°B.

Current requirements - "making at least two voyages in the sea for a total of at least 200 hours of sailing" - do not take into account the ability of future captains of yachts the weathering techniques and behaviour when navigating at high sea state.

4.2.7. WIM 89/19 - pushed train: Atlant 1 pusher tug and Ulan 72 barge

As a result of the investigation carried out the Commission established that the cause of the accident was an inadequately secured place from which the captain observer provided information to the captain steering the pushed train.

The factors influencing the occurrence of the accident were as follows:

- Improperly designated observer position near the coaming of the open cargo hold.
- Yacht sailing from around a bend in the opposite direction preventing the pushed train from safely crossing the line of open pontoons on the bridge.
- Reducing the speed of the pushed train at the bridge and thus exposing the emerged, empty barge to drift due to wind and consequently to hit the dolphin.



Recommendations resulting from the final report WIM 89/19 – pushed train: Atlant 1 pusher tug and Ułan 72 barge

In connection with the Ordinance of the Head of the Inland Navigation Office in Gdansk of March 13, 2007, on the detailed conditions for safe traffic and berthing of ships on inland waterways, para 3, item 8 regarding the maintenance of an observation post at the bow and the connection with the wheelhouse on pushed trains with a total length greater than 86 m, while sailing on strenuous sections of the waterway, such an observation post should not pose a threat to the observer.

In connection with the above the State Maritime Accident Investigation Commission issues recommendations to the owner of the Atlant 1 pusher tug operating pusher trains with barges:

1. LSeaLine Sp. z o.o.

The Commission recommends that each time an observer is dispatched to the bow of the barge on a pushed train the cargo hold should be closed from the bow side to prevent the observer from falling into the cargo hold. If such a position is to be close to the cargo load such cargo load must be closed all not partially open.

4.2.8. WIM 35/19 – fishing boat $\pm WI - 82$

Following the investigation and calculations performed on the basis of simulation scenarios, the factors that could contribute to the casualty included:

- storage of fish in the fishing net on deck,
- strong wind and wave operating from side directions,
- flow of wave water on deck and too slow outflow of water,
- possible occurrence of resonance swaying,
- cargo displacement,

Recommendations resulting from the final report WIM 35/19 – fishing boat ŚWI – 82

1. Minister competent for maritime economy.

The Commission, with consideration to enabling the SAR services to determine the actual course of the vessel and to provide immediate help to the survivors, repeats its recommendation on equipping the vessels in the automatic identification system (AIS) provided previously in the final report from investigation of very serious marine casualty consisting in the collision of Miętus II yacht and Begonia S vessel on 4 November 2018 on the Baltic Sea (WIM 92/18).

The Commission, taking into account that:





- the fishing boats of the length up to 15 m can be commanded by any person holding the senior fisher without any training in the area of vessel's stability and floodability,
- the cutters of the length up to 24 m can be commanded by class 2 skipper of sea fishery, who completed 46 hours of training in the area of stability throughout its career,
- fish transport is repeatedly practices on boards of fishing vessels despite the general prohibition referred to in the stability documents of the vessels (not applicable to open-board vessels),
- lack of understanding of technology and use of information contained in the stability documentation in force at a given fishing vessel is observed,

recommends carrying-out of trainings for the fishers/skippers of the fishing vessels in the area of floodability and stability, with consideration to the need for adjusting the training level to general knowledge of participants, preferably in the periods between the fishing activities and financed from the dedicated EU funds.

4.2.9. WIM 112/19 – sailing yacht "Lilla W"

The main cause of the accident was a navigation error – the approach path to the port taken was incompatible with the recommended one which resulted in the yacht entering the surf zone. A factor contributing to the accident was the initial decision to start sailing to Klaipeda at all, despite the forecasted hydro-meteorological conditions in the South-Eastern Baltic Sea. The captain, when embarking on this voyage, clearly exceeded the limitations of both the operator's manual and the yacht's Safety Card due to the predicted sea state.

Recommendations resulting from the final report WIM 112/19 – sailing yacht "Lilla W"

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which are proposals for actions that may contribute to the prevention of similar accidents in the future, to:

- 1. "Bavaria Yachtbau GmbH" Shipyard
- 1. The Commission recommends strengthening the cockpit table mount in the Bavaria 37 Cruiser model and in any other type of yacht.
- 2. It is recommended to equip yachts with tightly closed bags, more resistant to breaking or tearing, permanently attached to the hull, where loose ends of ropes can be stowed, thus preventing large sections of slack ropes from falling overboard, getting caught in the engine propeller and, consequently, immobilising it.



4.2.10. WIM 65/19 – fishing vessel WŁA-184 Helot

The main reason for the vessel's poor stability was loading of a significant number of crab cages on the shelter deck and the superstructure deck along the wheelhouse. The Commission found that there were no indications that the damage to the hull plating and flooding of the watertight compartment with seawater could have resulted in a heel posing a risk of capsizing. Partial flooding of the machinery compartment and of the other spaces that occurred during the accident was the effect rather than the cause of excessive heel.

Recommendations resulting from the final report WIM 65/19 – fishing vessel WŁA-184 Helot

With regard to the completed accident investigation of the WŁA 184 HELOT fishing vessel, the Commission made the following recommendations:

1. Operator of the vessel

The State Marine Accident Investigation Commission recommends the operator to operate the WŁA - 184 HELOT fishing vessel strictly in accordance with the applicable regulations. Lack of sufficient manning of the vessel and employment of crew members without proper qualifications is assessed by the Commission as an unnecessary threat to safety of the entire crew involved in the operation of the vessel.

Any design changes to the vessel in relation to the approved documentation should be made upon information and under supervision of the classification society.

2. Polish Register of Shipping

Due to the fact that the Polish Register of Shipping performs technical supervision over the designated vessels and may issue safety certificates for ships, the State Marine Accident Investigation Commission recommends special care during the inspections.

In the case of arbitrary changes made to the WŁA - 184 HELOT fishing vessel, the Commission believes that the Class Certificate should be issued only after removal of arbitrary changes made by the operator so that the restored structure of the vessel complies with the technical and stability documentation. The applied corrective actions shall prevent or at least inhibit the owner or the crew to reintroduce changes to the vessel structure not approved by PRS.

4.2.11. WIM 137/19 - survey motor boat Sonia and working raft PH-SH-2

The cause of casualty was performing of side-by-side towing by a vessel of inappropriate construction for such towing, without sufficient manning and outside the area permitted by the provisions of the Safety Card.



In addition, the following factors contributed to the casualty:

- 1. Imprecise provisions in the certificate of motorboat class permitting towing without determination of maximum size of a towed vessel,
 - 2. Issuing by the Master Office of the Port of Gdansk of consent for towing.

Recommendations resulting from the final report PH-SH-2

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which are proposals for actions that may contribute to the prevention of similar accidents in the future, to:

1. "Sonia" motor boat and "PH-SH-2" working raft operator

The Commission recommends implementation of the principles of fleet operation in the company in accordance with the provisions of safety and classification documents, including in particular with reference to ensure manning and operation of vessels in line with the safety card in a legally permitted way and at the area.

2. Polish Register of Shipping

Considering that information contained in the class certificate for towing of the other vessels is insufficient, the Commission recommends harmonisation of the PRS provisions in the area of towing in a way that additional information on the class certificate contain a confirmation of compliance of at least the requirements laid down in Annex II of the Directive of the European Parliament and of the Council (EU) 2016/1629 of 14 September 2016 and additionally specify the methods of towing, necessary equipment, permissible sizes of towed vessels, threshold weather conditions and the areas, in which towing can be performed. Technical overhaul should be supplemented with inspection of technical measures required by the provisions of the Convention on the international regulations for preventing collisions at sea for towing and towed vessels.

3. Minister competent for marine economy

Considering the fact that immediate access to source information is necessary at these times, the Commission recommends establishing of legally binding framework, implementation and maintenance of database of all Polish vessels. Information available in this database should include also information on the capacity of a given vessel for towing or being towed and all terms and conditions related to safe performance of this procedure. The base containing data acquired from the sources of their establishment will meet the condition necessary to make proper decisions by the services performing surveillance of safe navigation of vessels on the Polish maritime waters.



4.2.12. WIM 139/19 – "Hunter" and "Amelia Max" motor yachts

After conducting the analysis the Commission found that factors that influenced and consequently led to a collision of "Amelia Max" and "Hunter" yachts on December 20, 2019, at approx. 7:27 AM were as follows:

- 1. Lack of constant and careful visual and radar look-out in order to detect and avoid situations of excessive proximity and collision with another vessel, as well as watch-keeping on the bridge of Amelia Max's yacht with the light on impairing the look-out (which was observed by the witness shortly before the collision). It is inconsistent with the principles of safe navigation and with the COLREGs provisions.
- 2. Risky course crossing manoeuvres at a short-distance without any justification when sailing the high seas.
- 3. Failure to perform decisive manoeuvres to avoid excessive proximity situation or a "last resort" manoeuvre by both vessel.
- 4. Lack of use of the VHF connection to determine the method of safe passing of vessels, as well as no audible warning to alert the other vessel and draw attention to the dangerous situation.

Recommendations resulting from the final report WIM 139/19 – "Hunter" and "Amelia Max" motor yachts

The State Marine Accident Investigation Commission has found it justified to refer safety recommendations, which are proposals for actions that may contribute to the prevention of similar accidents in the future, to:

1. The "Hunter" and "Amelia Max" operators

The collision described in the report could have ended in another maritime tragedy due to the failure to respect the obvious and simple rules of safe navigation. The State Commission on Maritime Accident Investigation recommends to both ship-owners careful selection of crews for operated yachts approved for sailing as commercial yachts and adapted conducting cruises with anglers on board.

The standard of vessels offered to anglers should also include the highest standard of safety offered by the crew operating them.

The crew, apart from having the required qualification documents, should be aware of the responsibility for the lives of anglers transported during commercial fishing trips and should guarantee respect for their profession.





The operators should constantly remind the crew that they are responsible not only for the routine activities associated with a running a vessel but also for the lives of passengers often unfamiliar with a sea.





4.3 Specification of recommendations of the Commission sent to appropriate entities in the period of 01.07. 2019 to 30.06.2020 and their responses. $Table\ 2$.

No.	WIM No.	Vessel's name	Report publication date	Addressee of the recommendations	Report dispatch date	Deadline for the response	Response reception date	Fulfilment of recommen dations
1	51/18	Karukera & Flipper	July2019	Sailing community	X	No response	X	X
2	54/18	Skagerak	August	Nauta S.A. Shipyard	07.08.2019	07.02.2020	17.09.2019	yes
1	J4/10	Skagerak	2019	Pilot Station in Gdansk	07.08.2019	07.02.2020	13.04.2019	yes
3	77/18	Peak Bergen	August	Bergen Peak vessel operator	12.09.2019	12.03.2020	25.09.2019	yes
3			2019	Maritime Office in Szczecin	04.09.2019	04.03.2020	02.03.2020	yes
	92/18	Mietus II & Begonia S		Begonia S vessel operator	06.11.2019	06.05.2020	No response of the Turkish operator	
			November 2019	Miętus II yacht operator	04.11.2019	04.05.2020	10.06.2020	yes
4				Office of Electronic Communications (OEC, Polish: UKE)	04.11.2019	04.05.2020	05.05.2020	yes
				Minister competent for maritime economy	04.11.2019	04.05.2020	04.05.2020	yes
5	72/18	KOŁ-73	November 2019	Minister competent for maritime economy	04.12.2019	04.06.2020	01.06.2020	yes
	04/19	Situla	December	Situla vessel operator	23.01.2020	23.07.2020	No response of opera	-
6			2019	Minister competent for maritime economy	04.12.2019	04.06.2020	01.06.2020	yes
7	07/19	San Diego	December 2019	Żegluga Gdańska Sp. z o.o.	13.12.2019	13.06.2020	09.09.2020	yes
			2019	Pilot Station in Gdansk	13.12.2019	23.06.2020	14.09.2020	yes



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				Head of the Maritime Office in Gdynia	13.12.2019	23.06.2020	25.06.2020	yes
				Minister competent for maritime economy	13.12.2019	23.06.2020	01.06.2020	yes
8	03/19	Bielik	January 2020	Żegluga Świnoujska Sp. z o.o.	31.01.2020	31.07.2020	23.04.2020	yes
	24/19		March 2019	Operator	03.04.2020	30.10.2020	09.12.2020	yes
9		UST-31 & WŁA-68		Maritime Office in Szczecin	03.04.2020	30.10.2020	17.04.2020	yes
				Polish Register of Shipping	03.04.2020	30.10.2020	14.09.2020	yes
10	39/19	KUŹ-102	March 2020	Minister competent for maritime economy	08.04.2020	08.10.2020	07.12.2020	yes
10				Head of the Maritime Office in Gdynia	08.04.2020	08.10.2020	10.10.2020	yes
11	41/19	JAS-57 Magdalena	April 2020	Polish Register of Shipping	22.04.2020	22.10.2020	08.10.2020	yes
12	28/19	Fishing boat PW-WEJ-1891A	April 2020	Minister competent for maritime economy	28.04.2020	No response	X	X
	54/19	Sailing yacht Xela	May 2020	Minister of Sport	28.05.2020	28.11.2020	17.09.2020	yes
13				Minister competent for maritime economy	28.05.2020	No response	X	Х





5. WARNING OF POSSIBLE DANGER (EARLY ALERT).

In 2020 the Commission did not publish any early alerts.

6. COOPERATION WITH OTHER ENTITIES.

It should be noted that in 2020 the Commission was working intensively with casualty investigation organizations in other countries.

Due to restrictions in the second half of the year in Europe associated with Covid-19 pandemics, direct contacts between the representatives of organisations investigating the casualties have been practically suspended. These were substituted with on-line communication enabling the exchange of information via computer applications and individual phone calls. The 12th EMCIP user group meeting (on-line) took place on 7 October 2020, followed by the 10th meeting of the Permanent Cooperation Framework on Accident Investigation (on-line meeting) on 2-4 December 2020. In the case in which it was necessary to investigate the casualty outside the country's borders, the marine accident investigation commissions support each other by assigning the investigation to the commission of the country competent for the place of casualty.

When investigating 1 casualty in 2020, the Commission established cooperation with the administration of Malta, since the casualty (WIM 033/20) consisting of falling the pilot into water took place when the pilot was entering the deck of the "X-Press Mulhagen" vessel under the flag of Malta when approaching the Northern Port in Gdansk.

When investigating 4 accidents in 2020 by the other states, the Commission jointed the investigations as a substantially interested state - SIS:

WIM 16/20 – very serious marine casualty that took place on the "Fairplay 33" tugboat under the flag of Antiqua and Barbuda, in effect of which one crew member of Polish nationality died. Investigation carried out by the Department for investigation of marine accidents of Antiqua and Barbuda administration (ADOMS).

WIM 24/20 – accident on the "Mount Everest" vessel under the flag of Liberia, during manoeuvres when entering the Marsaxlokk port in Malta. In effect of hitting with a mooring cable, a Polish officer was injured and taken immediately to the hospital. The investigation is carried out by the Maltese Accident Investigation Commission (MSIU).

WIM 94/20 – accident on the "W.B. Yeast" vessel under the flag of Cyprus during navigation near Dublin. The electro-technical officer of Polish nationality was missing. The investigation is carried out by the Cypriot Accident Investigation Commission (MAIC).





WIM 97/20 – collision of m/v "Maersk Launceston" under the flag of Portugal, commanded by the Polish captain with the Greek "Kallisto" minehunter, in a distance of approx. 3 Nm from Piraeus. The investigation is carried out by the Portuguese Marine Accident Investigation Commission (GAMA).

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9. EXCERPTS FROM REGULATIONS.

The act of 31 August 2012 on State Marine Accident Investigation Commission (Journal of Laws of 2019, item 1374)

Footnote [5]

Art. 2.

- 1. Whenever the act mentions:
- 1) a marine casualty it should be understood as an event, or a sequence of events directly related to the operation of the vessel, in which the following occurred:
 - a) death or serious injury to human health, or
 - b) loss of a man stationed on a vessel, or
 - c) sinking, loss of, or loss of the vessel in a different way, or
- d) damage to the vessel, affecting to a large extent its design, manoeuvrability, or operational ability, requiring major repairs, or





- e) vessel's grounding, contact with the bottom, hitting an underwater obstacle, the immobilization of the vessel or the collision of vessels, fire, explosion, impact on the structure, device or installation, shifting of cargo, damage caused as a result of unfavourable weather conditions, damage by ice, cracking the hull or suspected damage to the hull, or
- f) significant damage caused by the vessel to the port infrastructure, infrastructure providing access to ports or harbours, installations or structures on the sea, causing a serious threat to the safety of the vessel, other vessels or person
 - g) harm to the environment or danger of causing such harm by the vessel
- however, a marine casualty shall not be considered a conscious act or omission taken with the intent to breach the security of the vessel, causing personal injury or damage to the environment;

Footnote [6]

Art. 15.

- 2. The Commission shall not investigate marine casualties and incidents:
- 1) involving exclusively:
- a) vessels of the Navy, Coastguard or Police,
- b) vessels without mechanical propeller or wooden vessels of simple construction;
- 2) involving exclusively:
- a) other vessels than those referred to in point 1 letter a, vessels performing only a special state duty or operated by the State for non-commercial purpose,
 - b) fishing vessels of an overall length of 15 m,
 - c) recreational yachts,
 - d) vessels and floating objects forming a towing unit other than the vessel having in tow
 - except for very serious marine casualty;
 - 3) on fixed offshore platforms, in which the sea-going vessels have not part.

Footnote [7]

Art. 20.

2. Following the initial assessment of the causes of a serious marine casualty the Commission may decide to renounce the investigation.



Footnote [8]

Art. 20.

3. In the event of an accident other than a casualty, referred to in paragraph 1, or a marine incident, the Commission shall decide either to undertake the investigation or to withdraw from it.

Footnote [9]

Art. 21.

- 1. The Commission shall carry out the investigation of a marine casualty or incident individually.
 - 2. The Commission may:
- 1) transfer the management of the investigation of a marine casualty or incident to a state other than the Republic of Poland which is substantially interested in a marine casualty or incident;
- 2) allow to participate in the investigation of a marine casualty or incident another state than the Republic of Poland significantly interested in a marine casualty or incident;
- 3) join in the investigation of a marine casualty or incident conducted by another state than the Republic of Poland substantially interested in a marine casualty or incident.
- 3. A state substantially interested in a marine casualty or incident, hereinafter referred to as a "substantially interested state" shall be deemed a state:
 - 1) of the flag of a vessel involved in a marine casualty or incident, or
- 2) a coast, in whose internal waters or territorial sea a marine casualty or incident has occurred, or
- 3) whose natural environment, including water and territory, under the jurisdiction of that state, suffered a major damage as a result of a marine casualty, or
- 4) which in regard to artificial islands, installations and structures under the jurisdiction of that state, has suffered damage as a result of a marine casualty or incident, or injury, or prospective injury, or
 - 5) whose citizens suffered death or a serious injury as a result of a marine casualty, or
- 6) possessing relevant information, which the Commission considered useful in the investigation of the causes of a marine casualty or incident, or
- 7) which is otherwise interested in the investigation of a marine casualty or incident and considered essential by the Commission.