MARINE ACCIDENT INVESTIGATION REPORT

 $\begin{array}{c} {\rm May}\ 25,\!2017 \\ {\rm Adopted}\ {\rm by}\ {\rm the}\ {\rm Japan}\ {\rm Transport}\ {\rm Safety}\ {\rm Board} \\ {\rm Member}\quad {\rm Kuniaki}\ {\rm Shoji} \end{array}$

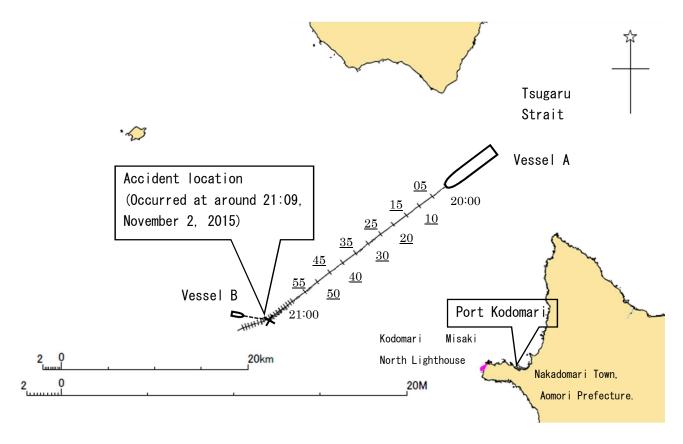
Member Satoshi Kosuda Member Mina Nemoto

Accident Type	Collision					
Date and time	November 2, 2015, around 21:09 (local time, UTC+9 hours)					
Location	In the west-northwest off Cape Kodomari, Nakadomari Town					
	Aomori Prefecture, Japan					
	Around 281 degrees true bearing, 13.1 nautical miles from					
	Kodomari Misaki North Lighthouse					
	(approximately 41° 10.8' N 139° 58.4' E)					
Summary of the accident	Cargo ship, BALTIA, moving southwest and fishing vessel					
	RYOHOMARU No.8, moving east-southeast collided.					
	The master of RYOHOMARU No.8 was injured, and the vessel					
	had damage, etc. at the head. BALTIA had abrasion damage at the					
	starboard stem side.					
Course of the accident	The Japan Transport Safety Board appointed an investigator-in-					
investigation	charge from Hakodate Office and another investigator to investigat					
	this accident on November 5, 2015.					
	Comments on the draft report were invited from parties relevant					
	to the cause of accident.					
	Comments on the draft report were invited from the flag state of					
	BALTIA.					
Factual information						
Vessel type and name,	A Cargo ship, BALTIA (Republic of Malta registry), 38,849 tons					
Gross tonnage,	9286920 (IMO number), BALTIA NOVA SCHIFFAHRTS					
Vessel number, Owner,	GMBH					
LxBxD, Hull material,	225.00m x 32.26m x 19.30m, Steel					
Engine, Output, Date of	Diesel engine, 8,973kW, October 2, 2004					
launch	B Fishing vessel, RYOHOMARU No.8, 6.6 tons					
	AM2-5608 (fishing vessel registration number), Individual					
	owner					
	12.61m (Lr) x 3.20m x 1.18m, FRP					
	Diesel engine, 356.72kW, September 25, 1999					
	No. 212-11772 (Ship Inspection. Completion Slip. Number)					
Crew information						
	No license available					

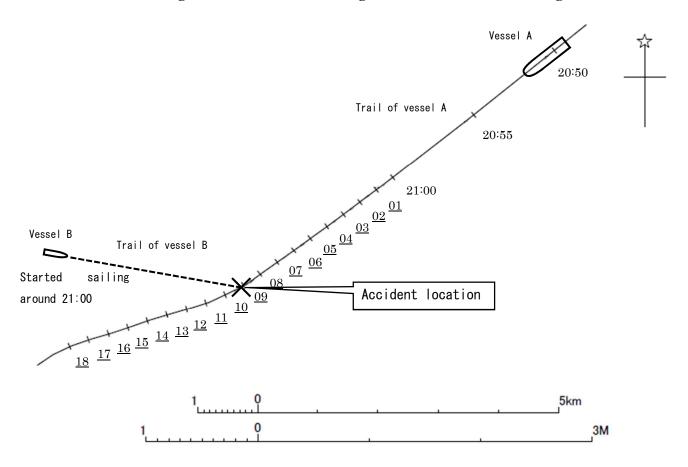
	B Skipper B, male, 45 years				
	First class boat's operator and personal water craft				
	operator with passenger service license				
	Date of issue: December 15, 1998				
	Date of revalidation: December 27, 2012				
	(valid until December 14, 2018)				
Injuries to persons	A None				
	B Light wound, one person (skipper B)				
Damage to vessel	A Abrasion damage at the starboard stem side				
	B Damage, etc. at the head				
Weather and sea	Meteorological phenomena: weather: rain, wind direction: south,				
conditions	Beaufort number: 3, range of visibility: approximately 2 nautical				
	miles				
	Sea conditions: wave height: approximately 0.5 meters				
Events leading to the	Master A and the other 20 crew members were on board vessel A,				
accident	which had left the United States of America for the Republic of				
	Korea and was moving southwest through the Tsugaru Strait at the				
	speed (speed over the ground; the same shall apply hereinafter) of				
	approximately 11 knots (kn) around 20:00 on November 2, 2015.				
	Vessel A kept moving southwest even after colliding with vessel B,				
	which had come close from the starboard bow, in the west-northwest				
	off Cape Kodomari. Then the Japan Coast Guard provid				
	information on its possible involvement with the accident and asked				
	for an investigation, thus vessel A met a patrol ship off the southwest				
	coast of Cape Henashi, Fukaura Town Aomori Prefecture to				
	cooperate with the investigation.				
	Skipper B and the other crew member were on board vessel B,				
	which engaged in pole-and-line squid fishing in the fishing ground				
	approximately 15 nautical miles away from the west-northwest				
	coast of Cape Kodomari. When they tidied up after the work with				
	the head of the vessel facing east-southeast, skipper B visually				
	recognized an image of vessel A moving southwest, approximately				
	two nautical miles away at 60° on the port bow, in the radar. Then				
	they started to head back for Port Kodomari, Nakadomari Town,				
	around 21:00.				
	Vessel B moved east-southeast at a speed of approximately 10kn under automatic steering, with skipper B standing on the bridge				
	watch alone in the steering house.				
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	Skipper B once turned his eyes to vessel A, coming closer from the				
	port side on a path that would cross vessel B on the head side, but				

	continued to navigate vessel B by retaining the course and speed while watching the work for sorting out the fish catch at the bow deck. The bow of vessel B and the starboard bow of vessel A collided with each other around 21:09. Vessel B sailed on its own to Port Kodomari after the accident. After entering the port, skipper B, who had been hit in the face, etc. by the impact of the collision, was transferred to the hospital by a car driven by his family member and received treatment.				
	(Refer to Attached figure 1. Outline drawing of course of events, Attached figure 2. Outline drawing of course of events (enlarged)				
	and Appendix table 1. AIS records of vessel A (Abstract).)				
Other items	Skipper B believed vessel A, which was a give-way vessel, would avoid vessel B because vessel A was coming close to vessel B from the port side and the courses of both vessels would cross each other.				
Analysis	the port side and the courses of both vessels would cross each offici.				
Involvement of crew	A: Uncertain, B: Yes				
Involvement of vessel,	A: Uncertain, B: No				
and engine, etc.	A: Uncertain, B: No				
Involvement of weather,	It is probable that vessel A collided with vessel B while moving				
sea conditions, etc.	southeast off the west-northwest coast of Cape Kodomari but it was				
Analysis of the findings	not possible to obtain information from master A. For this reason,				
	events leading to the accident could not be determined.				
Probable causes	When vessel B was moving east-southeast off the west-northwest coast of Cape Kodomari, skipper B believed vessel A would avoid vessel B and thus he did not look around but was watching the situation of work for sorting out the fish catch at the bow deck. For this reason, it is probable that he was not aware of vessel A coming close without changing direction and vessel B collided with vessel A. It is probable that skipper B believed vessel A, which was a give-way vessel, would avoid vessel B because vessel A was coming close to vessel B from the port side. It is probable that this accident happened in the west-northwest				
Propable causes	off Cape Kodomari during the night when vessel A was moving southwest and vessel B east-southeast and both vessels collided.				
Safety actions	It is considered useful that the following measures should be taken for the purpose of prevention of the recurrence of similar accidents. • If another vessel is seen coming close, continue to watch its				
	movement and take measures to avoid collision while there is still space.				

Attached figure 1. Outline drawing of course of events



Attached figure 2. Outline drawing of course of events (enlarged)



Appendix table 1. AIS records of vessel A (abstract)

	Location of vessel*		Course		
Time	Latitude (north)	Longitude (east)	over	Heading*	Speed over ground
(hours:min:sec)	(°-′ -″)	(0-" -")	ground*	(°)	(kn)
			(°)		(KII)
20:00:40	41-18-28.3	140-12-09.9	235	233	11.4
20:05:50	41-17-54.3	140-11-06.0	234	233	11.3
20:10:08	41-17-25.9	140-10-13.3	234	233	11.2
20:15:00	41-16-53.7	140-09-14.3	234	233	11.2
20:20:00	41-16-20.5	140-08-13.8	234	233	11.3
20:25:09	41-15-46.0	140-07-11.5	233	232	11.4
20:30:19	41-15-10.8	140-06-09.2	233	232	11.3
20:34:59	41-14-38.8	140-05-12.4	233	232	11.3
20:40:09	41-14-03.9	140-04-09.5	234	232	11.3
20:44:59	41-13-31.0	140-03-10.9	231	230	11.3
20:49:59	41-12-55.7	140-02-12.4	230	230	11.3
20:55:00	41-12-20.2	140-01-13.5	231	230	11.3
21:00:00	41-11-45.5	140-00-13.7	232	232	11.4
21:00:58	41-11-38.8	140-00-01.9	233	232	11.4
21:01:58	41-11-32.0	139-59-49.7	233	233	11.4
21:03:08	41-11-24.0	139-59-35.3	233	233	11.4
21:03:58	41-11-18.6	139-59-25.3	234	233	11.3
21:04:58	41-11-11.9	139-59-13.2	233	233	11.3
21:05:58	41-11-05.2	139-59-00.7	235	234	11.3
21:07:00	41-10-58.6	139-58-48.1	235	234	11.3
21:08:00	41-10-52.0	139-58-36.2	233	243	11.4
21:09:00	41-10-46.9	139-58-22.5	246	244	11.0
21:10:00	41-10-42.3	139-58-09.4	247	251	11.0
21:11:00	41-10-38.9	139-57-55.6	252	253	11.1
21:12:00	41-10-35.6	139-57-40.9	253	251	11.1
21:12:58	41-10-32.5	139-57-27.6	251	249	11.0
21:13:58	41-10-28.9	139-57-14.0	251	252	11.1
21:14:59	41-10-25.5	139-56-59.5	252	251	11.1
21:15:58	41-10-22.3	139-56-45.7	253	251	11.1
21:16:59	41-10-18.9	139-56-31.7	250	244	11.0
21:17:58	41-10-14.2	139-56-18.7	240	235	10.8
21:18:58	41-10-08.3	139-56-07.5	233	231	10.9

(Note) The vessel position is the coordinate of the GPS antenna installed at the top of the bridge of boats. The course over the ground and heading are at true bearing.