

Table S12: Marine Occurrences, 2017–2022

	2018	2019	2020	2021R	2022P	2018- 2021 average
Canadian Vessels						
Accidents	221	201	216	179	202	204.3
Shipping Accidents	180	152	178	144	166	163.5
Abandoned	0	0	0	1	0	0.3
Capsizes	7	2	2	4	8	3.8
Collision	24	14	24	13	21	18.8
Explosion	1	1	1	2	0	1.3
Fire	29	24	34	36	31	30.8
Grounding	50	42	43	31	44	41.5
Missing				2	0	2.0 added this row in 2022
Sank	15	15	17	21	28	17.0
Striking	37	36	45	24	25	35.5
Sustains Damage Render Unseaworthy/Unfit For Purpose	17	18	12	10	9	14.3
Accident Aboard Ship	41	49	38	35	36	40.8
Fatalities	19	12	18	11	7	15.0
Shipping Accident	14	1	12	9	2	9.0
Accident Aboard Ship	5	11	6	2	5	6.0
Injuries	41	40	35	35	33	37.8
Shipping Accident	3	5	2	5	7	3.8
Accident Aboard Ship	38	35	33	30	26	34.0
Type of Vessels Involved in Shipping Accidents (by Vessel Category)	212	168	211	144	166	183.8
Commercial	131	110	124	84	95	112.3
Barge	25	15	21	9	12	17.5
Cargo - Liquid	2	3	5	3	2	3.3
Cargo - Solid	28	24	31	12	14	23.8
Ferry	11	18	16	14	19	14.8
Passenger	11	17	10	6	10	11.0
Survey/Research	0	2	1	2	0	1.3
Service Ship	27	23	18	14	22	20.5
Ships boat				5	6	5.0 row added 2022
Tug	27	6	22	16	10	17.8
Sailing Vessel	0	0	0	0	0	0.0
Other	0	2	0	3	0	1.3
Fishing	70	54	77	47	62	62.0

Non-commercial	11	4	10	13	9	9.5
Commercial Accident Rate						
Commercial vessel accidents (>15 GT, Canadian, non-fishing, non-passenger)	102	91	96	71	91	90.0
Million vessel-kms	12.0	12.5	11.7	10.8	18.5	11.8
Accident Rate/million vessel-kms	8.5	7.3	8.2	6.6	4.9	7.6
Vessel transits	69,661	70,087	59,688	59,282	87,997	64679.5
Accident Rate/thousand vessel trips	1.5	1.3	1.6	1.2	1.0	1.4
Vessels Lost	13	9	14	13	12	12.3
Commercial	3	3	1	5	4	3.0
Fishing	10	6	13	8	8	9.3
Incident	689	708	675	668	745	685.0
Foreign Vessels						
Accidents	69	66	47	41	39	55.8
Shipping Accident	53	55	42	33	31	45.8
Accident Aboard Ship	16	11	5	8	8	10.0
Type of Vessels Involved in Shipping Accidents (by Vessel Category)	55	61	48	33	31	49.3
Commercial	41	55	43	30	30	42.3
Fishing	14	6	5	3	1	7.0
Non-commercial				0	0	0.0
Fatalities	3	5	0	0	0	2.0
Shipping Accident	0	3	0	0	0	0.8
Accident Aboard Ship	3	2	0	0	0	1.3
Injuries	20	13	6	10	7	12.3
Shipping Accident	5	5	0	0	0	2.5
Accident Aboard Ship	15	8	6	10	7	9.8
Vessels Lost	1	0	0	2	0	0.8
Incident	243	241	250	186	214	230.0
Total Marine Occurrences						
Accidents	290	267	263	220	241	260.0
Shipping Accident	233	207	220	177	197	209.3
Accident Aboard Ship	57	60	43	43	44	50.8
Fatalities	22	17	18	11	7	17.0
Injuries	61	53	41	45	40	50.0
Vessels Involved in Shipping Accidents	267	229	259	201	232	239.0
Vessels Lost	14	9	14	15	12	13.0
Incidents (Mandatory reporting)	932	949	925	854	959	915.0

Added this row

Notes: R= Revised data. P= Preliminary data. GT = Gross tons.

Transport Canada (TC) adopted an adjusted methodology to generate the summary table above.

As of 2021, category "Type of Vessels Involved in Shipping Accidents (by Vessel Category)" represents the number of occurrences, not the number of vessels involved.

The term "Commercial" includes all the activities in Transportation Safety Board's (TSB's) MARSIS database (under "Primary Activity Category") except "Government - General", "Not Engaged in Commercial Act", "Fishing" and "Unknown."

The term "Fishing" includes "Fishing" and "Unknown" categories in TSB's MARSIS ("Primary Activity Category").

Transits are based on fused terrestrial and satellite Automatic Identification System (AIS) data processed and analyzed by Transport Canada. The number of transits were only counted for the 17 Canadian Port Authorities.

The number of kilometers sailed are based on fused terrestrial and satellite Automatic Identification System (AIS) data processed and analyzed by Transport Canada. Nautical miles sailed were computed for vessels travelling within the limit of 12 nautical miles (nm) territorial sea and converted to Kilometers using a factor of 1.852. Data is not comparable to previous editions because of changes in sources and concepts.

The Accident Rate is calculated for shipping accidents of Canadian commercial vessels (excluding all fishing, passenger, and pleasure vessels and all vessels under 15 gross tonnage), as vessel activity is captured for these vessel sizes only.

TC's commercial accident rate differs slightly from the TSB's rate due to the capture of passenger vessels data by TC.

As of 2021 only serious injuries are counted.

All definitions can be found in the TSB annual report. <https://www.tsb.gc.ca/eng/stats/marine/2021/ssem-ssmo-2021.html>

As of 2021, when the vessel flag was "unknown", "n/a", or not reported ("blank") it was assumed that the vessel was Canadian.

Source: Transportation Safety Board, Transport Canada, Canadian Coast Guard, Automated Information System (AIS)