

**MARINE OCCURRENCE REPORT**

**COLLISION**

**BETWEEN THE U.S. FISHING VESSEL "EAGLE"  
AND THE U.S. RAIL BARGE "AQUA TRAIN"  
UNDER TOW OF THE U.S. TUG "CRAIG FOSS"  
CHATHAM SOUND, BRITISH COLUMBIA  
28 MAY 1995**

**REPORT NUMBER M95W0021**

The Transportation Safety Board of Canada (TSB) investigated this occurrence for the purpose of advancing transportation safety. It is not the function of the Board to assign fault or determine civil or criminal liability.

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### COLLISION BETWEEN THE U.S. FISHING VESSEL "EAGLE" AND THE U.S. RAIL BARGE "AQUA TRAIN" UNDER TOW OF THE U.S. TUG "CRAIG FOSS" IN CHATHAM SOUND BRITISH COLUMBIA 28 MAY, 1995

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#### Summary

At 0110, 28 May, the fishing vessel "EAGLE", southbound on passage from Ketchikan, Alaska, to Seattle, Washington, collided with the loaded rail car barge "AQUA TRAIN", which was under tow astern of the tug "CRAIG FOSS", northbound from Prince Rupert, B.C., to Whittier, Alaska. The collision occurred two miles east of the northern tip of Melville Island, Chatham Sound in moderate visibility.

There was no injury or pollution as a result of the occurrence. The "EAGLE" sustained minor damage to her anchor, which was housed on the forecastle head, and the "AQUA TRAIN" sustained superficial scraping and denting to the hull.

*Ce rapport est également disponible en français.*

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<sup>1</sup> All times are in PDT (Coordinated Universal Time minus 7 hours)

**FACTUAL INFORMATION**

**Particulars**

Name	"CRAIG FOSS"	"AQUA TRAIN"	"EAGLE"
Port of Registry	Seattle, Wa.	Seattle, Wa.,	Seattle, Wa.,
Flag	U.S.A.	U.S.A.	U.S.A.
Official Number	507964	653562	917711
Type	Tug	Rail Car Barge	Longliner
Gross Tons	298	6249	145
Crew	7	Unmanned	6
Length	35.35 m	129.54 m	23.53 m
Draught	Fwd: 4.26 m	3.47 m	Fwd: 3.47 m
	Aft: 4.87 m		Aft: 3.47 m
Built	1944 Tampa, Florida	Chungmu, South Korea	La Barte, Alabama
Propulsion	GM, 2x16 cylinder diesels, single variable pitch propeller.	None	Caterpillar, 12 cylinder diesel, 624 BHP, single fixed-pitch propeller
Owners	Foss Maritime Co. Seattle, Wa., U.S.A.	Foss Maritime Co. Seattle, Wa., U.S.A.	Polmar Fisheries Inc. Seattle, Wa., U.S.A.

**Description of Vessels**

The "EAGLE" is a longliner of steel construction with her wheelhouse forward of amidships. The "CRAIG FOSS" is a conventional tug of steel construction and the "AQUA TRAIN" is a non-self-propelled single-deck rail car barge of steel construction. All vessels were operating with U.S. Coast Guard certificates of inspection.

Amongst the navigation equipment on both the "EAGLE" and the "CRAIG FOSS" were two radar sets and two VHF radiotelephones.

**Events Leading up to the Collision:**

**"EAGLE"**

The "EAGLE" was en route from Dutch Harbour, Alaska, to Seattle, Washington, in the lightship condition and had made a short stopover at Ketchikan. The vessel departed Ketchikan at 1500, 27 May, passing Lord Islands about 2300. At 2400, with the vessel southbound in Chatham Sound and having just passed Green Island Light, there was a change-over of the bridge watch, a watch made up of two deck-hands. The skipper was on the bridge at this time, and with the watch relieved to his satisfaction, he proceeded below leaving orders that he should be called at Lucy Island.

The skipper of the "EAGLE" had 11 years sea-going experience as a fisherman and had passed through the inland passages of B.C. twice a year on average. He did not hold any formal marine qualifications and was not required to by US regulations.

The "EAGLE" was proceeding at her full service speed of about 8 knots and the bridge duties were shared between the two deck-hands. The deck-hand in charge of the vessel's conduct was seated at the control console located on the starboard side of

the wheel-house, with engine controls and electronic navigational aids within easy reach. The second deck-hand was at the port side of the wheel-house on look-out duty.

The deck-hand who had the conduct of the "EAGLE" had 20 years sea-going experience, mainly in the charter boat industry in southern waters.

He had been 3 months on the "EAGLE" and was not familiar with B.C. waters. He held a USCG 50 ton operator's licence.

Navigation of the "EAGLE" was by radar distances off the land with some reference to lighted aids but no positions were being plotted on the chart. The vessel was being steered by auto-pilot on a setting of 180° (T). The VHF radiotelephones were monitoring channel 16; the vessel was not participating in the Prince Rupert Marine Communications and Traffic Services (MCTS) reporting system.

Approaching Melville Island the deck-hand in charge of the navigation had three targets ahead on his radar screen which he believed to be Lucy Island, Tugwell Island and Alexandra Bank. He could also see lights ahead, which he assumed to be those of Lucy Island, he was not aware that the tug "CRAIG FOSS" and her tow were to the north of Lucy Island.

It was determined that the "EAGLE" was too far to the west of her intended course line to pass to the east of Lucy Island and a course alteration was made of 30° to port (giving a setting of 150° (T) on the auto-pilot). After making the course alteration, the deck-hand in charge of the watch became aware of a vessel, later identified as the "CRAIG FOSS", fine on the port bow at an approximate distance of 0.5 miles. He attempted to call the vessel on channel 16 VHF with no response. Since visibility from inside the wheel-house was impaired by rain and drizzle, he moved between the radar and the bridge wings. He considered there was sufficient searoom for the two vessels to pass safely and the other vessel was observed to alter course somewhat to starboard. He also noted that the other vessel displayed three masthead lights and a red sidelight.

The other vessel again altered course to starboard when 0.25 miles distant and still fine on the port bow and, as the two vessels approached one another in a close quarter situation, the deck-hand took the main engine out of gear in order to slow down to avert a collision. The tug then passed abeam at a distance he estimated as 300 ft (92 m) off on the port side. Once the tug passed clear astern he put the engine back in gear, increased the throttle and the "EAGLE" resumed her course.

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<sup>2</sup> Formerly Vessel Traffic Services (VTS)

The weather at the time as reported by the "EAGLE" was slight seas with light SW'ly winds and a light drizzle with visibility approximately two miles, although shore lights were visible at a much greater distance.

The predicted tidal stream for the north part of Chatham Sound at the time leading up to the collision was north at a maximum rate of one knot.

**"CRAIG FOSS"**

The "CRAIG FOSS" was on her regular Ro/Ro Railcar service from Prince Rupert to Whittier, Alaska, towing the loaded rail car barge "AQUA TRAIN".

At 2323, 27 May, the "CRAIG FOSS" reported to MCTS as she passed Petrel Rock and was advised of the tug "COMOX ARGUS" southbound in Chatham Sound with a barge in tow and an ETA of 0115 for Lucy Island. At 2345 the second mate entered the wheel-house to relieve the master and take over the conduct of the vessel. He was advised of the traffic in the area including the report on the "COMOX ARGUS". The master then proceeded below to his quarters.

Both the master and OOW of the "CRAIG FOSS" were properly certificated by the USCG and were familiar with their vessel and the waters. The master had 26 years in the towing industry, sailing as master since 1981. The OOW had 20 years sea-going experience, 6 years in the towing industry.

Shortly after midnight the tow line was lengthened for towing in open water to a total length of approximately 656 m between the tug's towing winch and the forward end of the barge. The tow line consisted of 579 m of wire line connected to two 27 m lengths of chain and a 27 m chain bridle.

At 0025, 28 May the "CRAIG FOSS" and the "AQUA TRAIN" were off Lucy Island and the course was set to 341° (T) with the tow proceeding at a speed of approximately 8 knots. Navigation was by radar and local knowledge; the vessel was on auto-pilot. The seaman on watch was in the wheel-house on look-out duty.

At 0028, after the "CRAIG FOSS" called MCTS when she was off Lucy Island, the "COMOX ARGUS" called the vessel on channel 71 VHF, the designated MCTS frequency for the area, and a conventional red to red (port to port) passing was agreed to. However, transcribed VTS audio tapes indicate that between 0036 and 0038 further communication took place between the "CRAIG FOSS" and the "COMOX ARGUS" and it was established that they were not meeting one another as thought, and that the "COMOX ARGUS" was meeting another vessel. During this radiotelephone conversation the "COMOX ARGUS" confirmed being in a position east of the Moffatt Group of Islands and the OOW on the "CRAIG FOSS" assumed that he had identified the other tug and tow on radar at a distance of six miles, approximately 5° on the port bow. The target was, however, later found to be the "EAGLE".

When the target was at a distance of approximately two miles and was displaying only a red sidelight, an attempt was made unsuccessfully to contact the approaching vessel on channel 13 VHF and when there was no response a 15° alteration of course to starboard was made. This was followed at one mile distance by a further 15° alteration to starboard and another unsuccessful attempt to raise the vessel on VHF. The approaching vessel was on a parallel course and would result in a close passing.

The two vessels passed abeam of each other at a distance estimated by "CRAIG FOSS" of 600 ft (180 m).

The weather at the time as reported by the "CRAIG FOSS" was moderate seas with SE'ly winds at 25 knots and light rain with shore lights visible at a distance off of six miles.

Neither vessel used manoeuvring/warning signals to communicate immediately prior to the collision. It was reported that the "EAGLE" was not equipped with a fixed whistle as required under the International Regulations for Preventing Collisions at Sea, 1972 (Col Regs).

### **The Collision**

With the vessels almost abeam of one another in a position to the east of Melville Island, the OOW on the "CRAIG FOSS" altered course a further 15° to starboard coming to a heading of 026° (T). The OOW lost visual sight of the "EAGLE" as she passed abaft the beam, however, it was evident by the radar traces that the fishing vessel was heading between the tug and barge but there was no movement or noise to indicate that a collision had taken place.

As the vessels passed abeam of one another and the "EAGLE" was working up to full speed, the look-out shouted to warn his watch mate that there was a barge astern of the tug. A course alteration of 20° to starboard was made immediately, and as the vessel started her swing the bow of the "EAGLE" travelling at an estimated speed of six knots struck the port forward side of the "AQUA TRAIN" at an angle of impact of approximately 35° on the port bow. The "EAGLE" was pushed over until she listed about 20° to starboard and then slid down the port side of the barge. The vessel was eventually pushed clear as the skipper entered the wheel-house and took the engine out of gear and stopped to assess the damage. The collision occurred at 0110 in position  
54° 24.6 N 130° 38.1 W.

At 0113 the "CRAIG FOSS" reported the occurrence to MCTS indicating that he was unsure if a collision had actually occurred or just a close quarter situation. MCTS contacted the "EAGLE" and verified that a collision had occurred. Both vessels then communicated with one another and resumed their voyages when it was established that neither required assistance.

### **Analysis**

After communicating with the "COMOX ARGUS" at 0036, the OOW on the "CRAIG FOSS" was under the impression that he was meeting the "COMOX ARGUS" and that he had identified the tow on the radar. The "COMOX ARGUS" was southbound from Anyox, Granby Bay, B.C., and had entered Chatham Sound from Portland Inlet. The vessel was therefore transiting Chatham Sound on a course line further to the east than that being traversed by the "CRAIG FOSS". The southbound tug and tow, in fact, passed Lucy Island some seven miles south of the collision position at 0108, two minutes prior to the collision. As the "CRAIG FOSS" approached the "EAGLE", which the OOW believed was the "COMOX ARGUS" he was not concerned about the other vessel being close on his port bow until she made a course alteration to port when they were about two miles apart; also the other vessel did not answer the radiotelephone and was seen to be displaying only a red sidelight.

The "EAGLE" being over 20 m in length was required by regulation to participate in the MCTS reporting system. Had the vessel been participating as required then she would have been monitoring VHF channel 71 and both vessels would have been aware of the other's presence and intentions.

The deck-hand on watch on the "EAGLE" observed the towing lights on the tug but he did not appreciate that the tug was towing a barge until it was reported to him by the look-out; he was preoccupied with lining the vessel up to pass east of Lucy Island.

Channel 13 VHF used by the "CRAIG FOSS" is a channel used for intership communication in the US. It is not used frequently in Canada and a Canadian vessel in the waters of the Prince Rupert MCTS Reporting area would be unlikely to be keeping a watch on that frequency.

### **Findings**

1. The "EAGLE" did not participate in the MCTS reporting system as required by regulation for a vessel of her size.
2. The crewmember in charge of the watch on the "EAGLE" did not properly interpret the radar display and establish the presence of the approaching vessel.
3. The crewmember in charge of the watch on the "EAGLE" did not identify the towing lights of the tug.



4. The OOW on the "CRAIG FOSS" misidentified the approaching vessel until just prior to the collision.
5. The OOW on the "CRAIG FOSS" used VHF channel 13 to attempt intership communication, a frequency not used in Canadian waters for that purpose.
6. Neither vessel used manoeuvring/warning signals to communicate and the "EAGLE" reportedly was not equipped with a whistle as required by the Col Regs".

#### **Causes and Contributing Factors**

The collision occurred because the deck-hand in charge of the conduct of the "EAGLE" did not identify either on radar or visually that the "CRAIG FOSS" was towing a barge and as a result ran the "EAGLE" between the tug and barge. The fact that the "EAGLE" did not participate in the Prince Rupert Traffic Reporting System and that the deck-hand in charge of the watch was preoccupied with lining the vessel up to pass east of Lucy Island, contributed to the occurrence. Also, had the OOW on the "CRAIG FOSS" realised earlier that the approaching vessel was not the "COMOX ARGUS" he would have given the approaching vessel a wider berth.

*This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson, Benoît Bouchard, and members Maurice Harquail and W.A. Tadros, authorized the release of this report on 25 July 1996.*