

**NATIONAL TRANSPORTATION SAFETY BOARD
Office of Research and Engineering
Vehicle Recorder Division
Washington, D.C. 20594**



SPECIALIST'S FACTUAL REPORT OF INVESTIGATION

DCA17PM018

**By
Ben Hsu**

WARNING

The reader of this report is cautioned that the transcription of a voyage data recorder audio recording is not a precise science but is the best product possible from a Safety Board investigative effort. The transcript or parts thereof, if taken out of context, could be misleading. The transcript should be viewed as an accident investigation tool to be used in conjunction with other evidence gathered during the investigation. Conclusions or interpretations should not be made using the transcript as the sole source of information.

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September 1, 2020

Simplified Voyage Data Recorder Audio

Specialist's Factual Report

By Ben Hsu

1. EVENT

Location: Yokosuka, Japan
Date: June 17, 2017
Vessel: ACX Crystal
IMO Number: 9360611
Operator: Sea Quest Ship Management, Inc.
NTSB Number: DCA17PM018

2. SUMMARY

See the NTSB Accident Docket for a summary of the accident.

3. VOYAGE DATA RECORDER GROUP

A simplified voyage data recorder (SVDR) group was not convened.

4. DETAILS OF VOYAGE DATA RECORDER INVESTIGATION

The NTSB's Vehicle Recorder Division received data from the following SVDR:

Recorder Manufacturer/Model: Furuno VR-3000S
Recorder Serial Number: Unknown

The SVDR data was analyzed using software supplied by the manufacturer. Further audio analysis and transcription was performed using NTSB laboratory hardware and software.

4.1. Furuno VR-3000S SVDR Description

The VR-3000S is a SVDR system capable of recording navigation, propulsion, and automatic identification system (AIS) data. Additionally, bridge audio and communications audio channels are recorded by the system. A minimum of 12 hours of data is recorded by the system.

4.2. Furuno VR-3000S Audio Recording Description

Approximately 3 hours and 38 minutes of audio was provided from the SVDR, including the time period surrounding the event. Timing of the SVDR data is synchronized to GPS time and is recorded as UTC.

Audio from approximately 38 minutes surrounding the event were transcribed for this report. The SVDR recorded five channels of audio: two channels of VHF radio, two channels in the bridge, and a combined channel containing both bridge wings.

Transcript of bridge audio from ACX Crystal (9360611) which collided with the USS Fitzgerald near Yokosuka, Japan on June 17, 2017.

LEGEND

2M	Second Mate
HELM	Helmsman
RDO	Transmission received over radio
ME	Maersk Evora (Container Ship)
?	Unidentified voice
*	Unintelligible word
#	Expletive
@	Non-pertinent word
()	Questionable insertion
[]	Editorial insertion

Note 1: Times are expressed in UTC.

Note 2: Generally, only radio transmissions to and from the accident vessel were transcribed.

Note 3: Words shown with excess vowels, letters, or drawn out syllables are a phonetic representation of the words as spoken.

Note 4: A non-pertinent word, where noted, refers to a word not directly related to the operation, control or condition of the vessel.

Start of Transcript	
16:02:32.6	[Sound of telephone ringing]
16:02:38.0	Bridge [Followed by unintelligible speech]
16:04:48.3	[Sound of electronic tones]
16:16:59.0 ?	[Unintelligible conversation]
16:26:20.8 ?	[Unintelligible conversation]
16:27:58.6 ?	[Unintelligible conversation]
16:28:30.9 ?	[Unintelligible statement]
16:29:00.9 ?	[Unintelligible statement]
16:29:06.7 ?	[Unintelligible statement]
16:29:11.7 2M	Starboard fifteen.
16:29:14.2 HELM	Starboard fifteen.
16:29:20.9 HELM	Starboard rudder fifteen.
16:29:33.5 ?	[Unintelligible conversation]
16:29:53.4 ?	[Unintelligible statement]
16:29:55.0 2M	Hard starboard. Hard starboard.
16:29:56.1 HELM	Hard starboard.
16:30:10.7 ?	[Unintelligible statement]
16:30:14.8 2M	Hard starboard.
16:30:16.1 HELM	Rudder hard starboard.

16:30:22.8 2M	(Hard port.)
16:30:32.0	[Sound of vibration, similar to collision]
16:30:34.6	[Sound of continuous alarm begins]
16:30:49.7 2M	Midship.
16:30:51.1 HELM	Midship.
16:30:55.8 2M	Hard starboard.
16:30:57.5 HELM	Hard starboard.
16:30:60.0 HELM	Rudder hard starboard sir.
16:31:04.1	[Sound of telephone ringing]
16:31:18.8	[Sound of continuous alarm ends]
16:31:23.4 2M	Midship.
16:31:24.4 HELM	Midship.
16:31:27.6 2M	Hard port.
16:31:28.4 HELM	Hard port.
16:31:29.9	[Sound of telephone ringing]
16:31:35.2 ?	[Unintelligible statement]
16:31:41.0 HELM	Rudder hard port sir.
16:31:48.6 2M	Hard port.
16:31:49.8 HELM	Rudder hard port.
16:32:15.6 ?	[Unintelligible conversation]

16:32:28.1 ?	[Unintelligible statement]
16:32:42.0 ?	[Unintelligible statement]
16:32:55.3 2M	Midship.
16:32:56.1 HELM	Midship.
16:32:59.8 ?	[Unintelligible conversation]
16:33:12.9 HELM	Rudder midship sir.
16:33:15.9 ME-RDO	A- Crystal. A- Crystal. Maersk Evora. [Followed by unintelligible statement]
16:33:24.2 2M-RDO	Ah. This is the ACX Crystal
16:33:38.1 ?	[Unintelligible statement]
16:33:43.8 ME-RDO	A- Crystal. A- Crystal. Maersk Evora.
16:33:49.9 2M-RDO	Yes this is ACX Crystal.
16:33:52.3 ME-RDO	Yes what is your intention my friend?
16:33:55.5 2M	Midship midship.
16:33:56.8 HELM	Rudder midship sir.
16:33:57.8 RDO	What is your intention?
16:34:00.4 2M-RDO	My intention. [Trails off]
16:34:05.5 2M	This is ***.
16:34:08.1 ME-RDO	This is Maersk Evora on your starboard side. [Followed by unintelligible statement]
16:34:15.9 2M-RDO	Yes. I avoiding you. Over.

16:34:25.1 ME-RDO	*** port side.
16:34:38.6 ?	[Unintelligible conversation]
16:34:40.5 ME-RDO	You copy my message?
16:34:42.1 ?	[Unintelligible conversation]
16:34:46.5 2M	Hard starboard.
16:34:47.4 ?	Hard starboard.
16:34:48.1 HELM	Hard starboard.
16:34:49.2 RDO	[Unintelligible statement]
16:34:55.6 ?	[Unintelligible conversation]
16:34:59.0 HELM	Rudder hard starboard sir.
16:35:00.6 ME-RDO	A- Crystal. This is Maersk Evora.
16:35:04.1 2M-RDO	Maersk Evora ah this is ACX Crystal.
16:35:06.9 ME-RDO	Yeah what is your intention. Are you * me.
16:35:10.4 2M-RDO	No no no no. I proceeding to my destination.
16:35:15.2 ME-RDO	Yeah. [Followed by unintelligible statement]
16:35:17.0 2M	Midship.
16:35:17.8 HELM	Midship.
16:35:32.8 ME-RDO	*** you go to the port *** on my port side.
16:35:38.8 ?	*** port.

16:35:40.7 HELM	Hard port.
16:35:49.1 ME-RDO	A- Crystal. Are you copying my message?
16:35:51.9 2M-RDO	Yes I copy *** your message. I *** port.
16:35:57.3 ME-RDO	Yeah you go to the port.
16:35:58.9 ?	Hard port.
16:35:59.7 HELM	Rudder hard port sir.
16:36:00.4 ?	** steering.
16:36:01.9 HELM	*** steering.
16:36:17.7 ?	Below.
16:36:20.2 ?	[Unintelligible statement]
16:36:28.0 ?	[Unintelligible statement]
16:36:49.3 2M	Rudder hard st- hard port.
16:36:52.6 2M	Midship.
16:36:53.4 HELM	Midship.
16:37:01.7 HELM	Rudder midship sir.
16:37:02.9 2M	Steady.
16:37:03.6 HELM	Steady.
16:37:09.5 ?	[Unintelligible statement]
16:37:22.0 ?	[Unintelligible conversation]
16:37:52.5 HELM	Heading zero four zero sir.

16:37:53.4
?

[Unintelligible statement]

End of Transcript