

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

July 16, 2021

Voyage Data Recorder (VDR) – Audio Transcript

Specialist's Factual Report
By Sean Payne

1. EVENT SUMMARY

Location: Destrehan, LA
Date: January 26, 2020
Vessel: *Glory First*
Registration: IMO 9713909
Operator: GLORY SHIPS(S) PTE. LTD.
NTSB Number: DCA20FM012

2. GROUP

A group was convened at National Transportation Safety Board (NTSB) headquarters on June 17, 2021. The group consisted of the following members:

Chairman: Sean Payne
Sr. Mechanical Engineer/Investigator
NTSB

Member: Michael Karr
Investigator-In-Charge
NTSB

3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following file from the United States Coast Guard (USCG):

Filename: 6896329 – CAN - ## GLORY FIRST AIS
1000 THRU 1300 UTC.wmv
Associated VDR System: Unknown

3.1 VDR Carriage Requirements

Chapter V of the International Convention for the Safety of Life at Sea (SOLAS), regulation 20, specifies VDR carriage requirements. Cargo ships larger than 3,000 gross tons, and all passenger ships regardless of tonnage, must be equipped with a VDR. The

vessel must need to be on an international voyage to be required to carry a VDR. The VDR for a cargo ship larger than 3,000 gross tons, constructed before July 2002, may be an S-VDR. Either system requires a minimum of the most-recent 12 hours to be stored. In the event of an incident or accident, investigation authorities must be able to download and replay the VDR data without delay. Software, instructions, and special parts necessary for data extraction and replay are required to be contained within the main unit of a VDR.¹

The *Glory First*, a cargo ship, was constructed in 2014 and was more than 3,000 gross tons and was on an international voyage. Therefore, the vessel was required to be equipped with a VDR meeting the post-2014 rules.

For additional details related to VDR carriage requirements, refer to table 1 below.

Table 1. Comparison of VDR and S-VDR requirements.

Parameters to be Recorded	VDR after June 2014 ^a	VDR before July 2014 ^b	S-VDR ^c
Date and time	X	X	X
Ship's position	X	X	X
Speed	X	X	X
Heading	X	X	X
Bridge audio	X	X	X
VHF communications audio	X	X	X
Radar	X	X	X ^d
AIS	X		X ^d
ECDIS	if fitted		
Depth (echo sounder)	X	X	X ^e
Main alarms	X	X	X ^e
Rudder order and response	X	X	X ^e
Engine and thruster order and response	X	X	X ^e
Hull openings status	X	X	X ^e
Watertight and fire door status	X	X	X ^e
Accelerations and hull stresses	if fitted	X	X ^e
Wind speed and direction	if fitted	if fitted	X ^e
Rolling motion (inclinometer)	if fitted		
Configuration data	X		
Electronic logbook	if fitted		

^a Refer to IMO resolution MSC.333(90) for required VDR parameters for installations after June 2014.

^b Refer to IMO resolution A.861(20) for required VDR parameters for installations before July 2014.

^c Refer to IMO resolution MSC.163(78) for required S-VDR parameters.

^d S-VDR installations require radar, unless no commercial off the shelf (COTS) interface is available. If COTS interface for radar is not available, AIS data must be recorded.

^e Certain parameters are only required for S-VDR installations if an IEC 61162 digital interface is available.

3.2. VDR System Description

The *Glory First* was outfitted with a VDR system. The type of VDR system was not documented by the USCG, and details of such were not available to the NTSB.

¹ Refer to IMO resolution MSC.214(81) for required download and playback equipment for investigation authorities.

3.3. Data Files/Data Recovery

Only a video track, combined with a bridge audio track from a VDR was supplied to the NTSB. The filename was “6896329 – CAN - ## GLORY FIRST AIS 1000 THRU 1300 UTC.wmv”. This file was a video of the Automatic Identification System (AIS) information from the region of the accident, combined with an audio track recorded from the *Glory First’s* VDR. The audio track was consistent with a bridge mounted microphone unit from a VDR system. No details on the VDR system were provided to the NTSB.

3.4. Time Correlation

The extracted data was recorded in coordinated universal time (UTC) and was converted to Central daylight time (CDT) for this report. Timing information came directly from the S-VDR and was not modified.

3.5. Audio Recording Description

Each channel’s audio quality is indicated in Table 2. Table 2 lists the one audio track that was present on the files delivered to NTSB. The channel’s audio quality is indicated in the table. All recordings were made in mono.²

Table 2. Audio Quality and Channel Description.

Source Microphone	Channel Number	Quality ^a	Duration
Unknown	1	Good	2:00:00 ^b

^a Audio Quality Rating Scale provided in attachment 1 below.

^b Format given is HH:MM:SS, where HH is equal to the number of elapsed hours, MM is equal to the number of elapsed minutes, and SS is equal to the number of seconds.

3.6. Audio Issues

The audio portion of the file contained audio from the bridge of the *Glory First*. The audio of the bridge track contained bleed over audio data from a bridge mounted VHF radio. When VHF transmissions were made, they obscured the bridge audio recording, making it difficult to transcribe the conversations on the bridge.

3.7. Transcript

All times are given in local time (CST). The format of the times are HH:MM:SS.0, where HH stands for the hour, MM stands for the minute and SS.0 stands for the number of seconds to one decimal place.

The transcript begins at 05:33:04 which served as a reference for when the *Cooperative Spirit* collided with the *RC Creppel*.

² Monaural audio – a single channel of audio perceived from a single position or speaker.

Transcript of an audio recorder installed on the *Glory First*.

LEGEND

GEN	General Audio Comment
-VHF	Indicates Transmission via VHF Radio
CSP	Transmission from <i>Cooperative Spirit</i>
Pilot	Voice of pilot of <i>Glory First</i>
Mate	Voice of mate of <i>Glory First</i>
Mate2	Voice of another mate of <i>Glory First</i>
-Call	Indicates Transmission via Mobile Phone
VTS	Vessel Traffic Service
-?	Voice unidentified
*	Unintelligible word
#	Expletive
@	Non-pertinent word
()	Questionable insertion
[]	Editorial insertion

Note 1: Times are expressed in Central Standard Time (CST).

Note 2: All radio traffic was transcribed or summarized, if detected.

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, such as a person's name.

Bridge Communications

VHF and Other Communications

05:00:00.0
GEN [START OF RECORDING]

05:33:04.2
GEN [Time of collision of RC Creppel and Cooperative Spirit.]

05:33:22.4
VHF [Unintelligible VHF transmission.]

05:34:24.7
VHF [Transmissions between *Cooperative Spirit* and *RC Creppel*.]

05:35:06.5
Pilot-VHF forty nine – Cooperative Spirit you havin' trouble there cap?

05:35:09.3
CSP-VHF hey mate wanna stop down there – * * * boat's down there in front of me * * I think ran 'em over * * tugboat.

05:35:11.7
Pilot mister mate –

05:35:19.1
Pilot mister mate we have an emergency. let's come down to maneuvering speed right now call the engine room.

05:35:23.9
Mate uh ok lowering maneuvering speed.

05:35:37.8
Pilot * forty feet * slow her down as much as I can.

Bridge Communications

VHF and Other Communications

05:35:42.7

Pilot port ten.

05:35:43.4

Mate port ten.

05:35:44.1

Mate2 sir?

05:35:44.7

Pilot port twenty.

05:35:45.5

Mate port twenty.

05:35:54.0

Mate port twenty sir.

05:35:55.9

VHF *** [Sound of VHF interference.]

05:36:11.2

Mate * * * .

05:36:13.6

Pilot-VHF forty nine north bound under twenty six mile point.
comin' up point side.

05:36:24.6

Pilot starboard twenty.

05:36:25.7

Mate starboard twenty.

05:36:33.9

Mate starboard twenty sir.

05:36:47.9

Pilot midship.

05:36:49.3

Mate midship.

Bridge Communications

VHF and Other Communications

05:36:51.4

Pilot port twenty.

05:36:52.3

Mate port twenty.

05:37:04.6

Mate we are port twenty sir.

05:37:19.3

Pilot midship.

05:37:20.6

Mate midship.

05:37:26.7

Mate we have midship sir.

05:37:29.3

Mate starboard twenty.

05:37:30.1

Mate starboard twenty.

05:37:34.4

Pilot hard to starboard.

05:37:35.3

Mate hard to starboard.

05:37:43.8

Mate we are hard to starboard sir.

05:37:50.4

Pilot midship.

05:37:51.0

Mate midship.

Bridge Communications

VHF and Other Communications

05:38:12.8

Mate we are midship sir.

05:38:41.3

MIC [sound of alarm.]

05:39:00.2

Mate mister pilot?

05:39:01.3

Pilot yes sir.

05:38:00.2

Pilot-Call

hey good evening this is ** forty-nine I'm on the look down for twenty-six. Cooperative Spirit in front of me believes he ran over the RC Creppel. he's stopped in the middle of the river. I'm overtaking him point side. I don't see him anywhere. twenty-six mile point yes sir. uh the RC Creppel southbound one barge I don't see him anywhere. * (bye).

05:38:41.6

Pilot-Call

I'm in the middle of making this turn but- I'll talk to you later bye.

05:38:48.0

CSP-VHF

forty-nine you not able to get stopped either?

05:38:49.6

Pilot-VHF

I cannot get stopped 'cap I'm gunna come up point side as much as I can do what I can.

05:38:53.7

CSP-VHF

* * all the time. I'm gunna be - you gunna be right on me bud.

Bridge Communications

VHF and Other Communications

05:39:02.2

Mate (the engine speed is in manual speed.)

05:39:04.2

Pilot very good.

05:39:14.3

Pilot mister mate?

05:39:15.1

Mate ya.

05:39:18.1

Pilot let's get uhh—

05:39:25.6

Pilot starboard twenty.

05:39:26.2

Mate starboard twenty.

05:39:29.4

Pilot hard to starboard.

05:39:30.1

Mate hard to starboard.

05:39:32.1

Pilot emergency full ahead please.

05:39:34.2

Mate emergency full ahead.

05:39:36.1

MIC [sound of pulsing alarm.]

05:39:39.2

Mate we are hard to starboard sir.

05:39:44.6

Pilot engine full ahead.

Bridge Communications

VHF and Other Communications

05:39:57.7

Pilot #.

05:39:59.8

Pilot? ahh # ***.

05:40:05.1

Pilot [sound of long sigh.] #.

05:40:26.0

MIC [unintelligible background conversation.]

05:40:30.5

Pilot mister mate we need to ring the danger signal please. danger signal. ring the general alarm.

05:40:36.4

Mate general alarm.

05:40:37.9

MIC [sound of ship's horn – the danger signal. The horn continues until approximately 05:41:46.]

05:40:39.2

Mate ring the general alarm.

05:40:41.5

Pilot? (pull. pull -pull -pull.)

05:40:44.7

Pilot midship.

05:40:45.5

Mate midship.

05:40:46.5

Pilot hard to port.

05:40:47.9

Mate hard to port.

Bridge Communications

VHF and Other Communications

05:40:51.1

MIC [sound similar to collision.]

05:40:56.0

Pilot? #.

05:40:56.5

CSP-VHF everything's gone.

05:41:00.0

Mate? #.

05:41:01.7

Pilot hard to port.

05:41:03.0

Mate (yeah) hard to port.

05:41:12.6

Mate we are hard to port sir.

05:41:23.8

Pilot? #.

05:41:44.0 * * *. [Comment may have been in a foreign
? language.]

05:41:46.1

Mate we are hard to port sir.

05:41:47.3

Pilot midship.

05:41:48.4

Mate midship.

05:41:49.5 * * *. [Comment may have been in a foreign
? language.]

Bridge Communications

VHF and Other Communications

05:42:00.2

Pilot hard to starboard.

05:42:01.4

Mate hard to starboard.

05:42:15.9

Mate we are hard to starboard sir.

05:42:38.9

Pilot (oh man.) [whispered]

05:42:44.1

VHF [Unintelligible VHF transmission.]

05:42:50.8

Pilot-VHF forty-nine has just been involved in an allision
twenty-six mile point continuing north.

05:43:01.6

VHF-VTS [VHF transmission – VTS closing the river from
mile marker 121 to 123.]

06:00:00.0 [End of Transcript]

GEN [End of Recording]

Attachment I

VDR Quality Rating Scale

The levels of recording quality are characterized by the following traits of the voyage data recorder audio information:

Excellent Quality	Virtually all of the crew conversations could be accurately and easily understood. The transcript that was developed may indicate only one or two words that were not intelligible. Any loss in the transcript is usually attributed to simultaneous bridge conversations or radio transmissions that obscure each other.
Good Quality	Most of the crew conversations could be accurately and easily understood. The transcript that was developed may indicate several words or phrases that were not intelligible. Any loss in the transcript can be attributed to minor technical deficiencies or momentary dropouts in the recording system or to a large number of bridge conversations or radio transmissions that obscure each other.
Fair Quality	The majority of the crew conversations were intelligible. The transcript that was developed may indicate passages where conversations were unintelligible or fragmented. This type of recording is usually caused by bridge noise that obscures portions of the voice signals or by a minor electrical or mechanical failure of the VDR system that distorts or obscures the audio information.
Poor Quality	Extraordinary means had to be used to make some of the crew conversations intelligible. The transcript that was developed may indicate fragmented phrases and conversations and may indicate extensive passages where conversations were missing or unintelligible. This type of recording is usually caused by a combination of a high bridge noise level with a low voice signal (poor signal-to-noise ratio) or by a mechanical or electrical failure of the VDR system that severely distorts or obscures the audio information.
Unusable	Crew conversations may be discerned, but neither ordinary nor extraordinary means made it possible to develop a meaningful transcript of the conversations. This type of recording is usually caused by an almost total mechanical or electrical failure of the VDR system or extremely high bridge noise.