

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RRD23FR002 - Beaumont, TX Rail Event
Date: Wednesday, November 2, 2022 3:39:00 PM
Attachments: [image001.png](#)
[preliminary Weather RRD23FR002 - Beaumont, TX.pdf](#)
[NTSB Weather Preliminary Worksheet RRD23FA002 - Beaumont, TX.docx](#)

Attached is the preliminary weather data you requested. There was no precipitation reported within 24-hours prior to the accident. Thunderstorms and heavy rain did occur after the accident. I also included the astronomical data which indicated dark nighttime conditions with no illumination from the Moon at the time of the accident. I have also included the data in a word document in case you desire to pull some data directly.

Advise if you need anything else.

Donald Eick
NTSB Senior Meteorologist
Office of Aviation Safety
Operational Factors Division (AS-30)

[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]





National Transportation Safety Board
Office of Aviation Safety
Operational Factors Division (AS-30)

METEOROLOGY

*Preliminary Event Review Worksheet - **FOUO**
Response Recommendation and Follow-Up*

Date of Event (UTC)

October 28, 2022

NTSB Number

RRD23FR002

Time of Event (UTC)

0515Z

Time of Event (LCL)

0015 CDT

Location

Beaumont, Texas

Latitude/Longitude

30.06739N 94.07618W

AS-10 / Regional IIC or AccRep

Troy Lloyd

MET Investigator

Don Eick

Type of Event

- Accident
- Incident
- Other

Mode

- Aviation
- Marine
- Other

Flight Operation

- Part 121/135
- Part 91/GA
- Other/Unknown

Source

- ROC
- NTSB staff
- Other

Initial Notification (if available) / Event Synopsis

On October 28, 2022, about 12:02 am local time in Beaumont, Texas, a railroad switching conductor was struck and killed by a reversing train. The conductor, part of a four-person train crew was protecting the reverse movement of 19 tank cars that were to be spotted at the rear of track No. 7 for product loading. The conductor, positioned on the ground near the final car spot radioed for the engineer to reverse the train back 5 cars, and then 3 cars, when radio communications were lost between the engineer and conductor. The engineer placed the train into emergency after not hearing any other railcar counts from the conductor. The conductor was found to be posi

NO WEATHER RELATED ISSUES

Weather Concerns and/or Considerations

A THOROUGH REVIEW OF PRELIMINARY INFORMATION RELATED TO THIS EVENT WAS CONDUCTED AND REVEALED NO CONCERN WITH WEATHER SURROUNDING THE TIME OR LOCATION OF THE EVENT

Potential Facility Involvement (operational products/support)

- Aviation Weather Center
- Alaska Aviation Weather Unit
- Local Weather Forecast Office
- Center Weather Service Unit
- Other NWS operational facilities
- Airline meteorological department
- Airline dispatch
- Private weather vendor
- ATC - ARTCC
- ATC - TRACON
- ATC - ATCT / FCT / NFCT / PVT
- ATC - Flight Services (FSS)
- Other (See Page 2)

AS-30 Internal Use Only

Were there fatalities or serious injuries?	(1)	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Does this event have a suspected operational wx component?	(1)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Are there clear or suggested systemic issues related to this event?	(1)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Are there issues related to the current NTSB Most Wanted List?	(1)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Potential issues part of NTSB action (e.g. SIR, pending recs)?	(2)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Has IIC or other investigator requested wx travel in support of invest?	(1)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Will wx data (e.g., WARP, ITWS) need to be requested and not obtainable remotely?	(1)	<input type="radio"/> Yes	<input checked="" type="radio"/> No		
Has the IIC requested AS-30 MET Support?		<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Are there additional elements not otherwise covered here?		<small>See Page 2</small>	<input type="radio"/> Yes <input type="radio"/> No		
Total all responses that have point values in parentheses (AS-30 only)					
0-4 points - MET Launch Recommendation Not Likely		<table border="1"> <tr> <td>Total Points</td> <td>1</td> </tr> </table>		Total Points	1
Total Points	1				
5-6 points - MET Launch Recommendation Possible (Monitor)					
7+ points - MET Launch Recommendation Likely					
Points used only to assist in making initial go/no-go recommendation to management					
Recommendation	Status				
No Action	Briefing Item Only				

Preliminary Information

Data Requested

Observations - the area was documented using official Aviation Routine Weather Reports (METAR) and Aviation Selected Special Weather Reports (SPECI). Cloud heights are reported above ground level (agl) in the following section, and the magnetic variation was estimated at 1.5° west based on the latest sectional chart for the area.

Jack Brooks Regional Airport (KBPT), Beaumont/Port Arthur, Texas, elevation of 15 ft had an Automated Surface Observation System (ASOS) and reported the following conditions surrounding the period from 1900 CDT on October 26 through 0700 CDT on October 28, 2022. The following table provides time (UTC), temperature (T) and dew point temperature (Td) in degrees Celsius, relative humidity (RH%), Wind direction and wind speed (KT), wind gust (kt), altimeter (ALT) in inches of Mercury, sea-level pressure (SLP), visibility (VIS) in statute miles, ceiling (CIG) in 100's ft, sky cover (COV), weather phenomena (WX), maximum (MAX) and minimum (MIN) temperature C, 6-hour precipitation (PR5), and 24-hour precipitation (PR24).

Data for 27 Oct 2022 (UTC)

ID	TIME	T	TD	RH	DIR	SPD	GST	ALT	SLP	VIS	CIL	COV	WX	MAX	MIN	PR6	PR24	SC
KBPT	2353	16	6	50	190	5		2998	151	10		CLR		25	16			
KBPT	0053	14	9	72	0	0		2999	156	10		CLR						
KBPT	0153	12	9	83	0	0		3000	158	10		CLR						
KBPT	0253	11	9	89	0	0		3001	160	10		CLR						
KBPT	0353	11	9	86	320	3		3001	161	10		CLR						
KBPT	0453	11	9	89	0	0		3002	164	10		CLR						
KBPT	0553	9	8	93	360	3		3000	159	10		CLR		25	7			
KBPT	0653	10	8	89	340	3		3000	159	10		CLR						
KBPT	0753	10	9	93	10	5		3001	160	10		CLR						
KBPT	0853	9	9	97	350	4		3000	158	10		CLR						
KBPT	0953	9	8	93	10	5		3000	157	10		CLR						
KBPT	1053	9	6	83	10	5		3000	159	10		CLR						
KBPT	1153	8	6	86	10	5		3001	162	10		CLR		11	8			
KBPT	1253	11	8	83	30	5		3002	165	10		CLR						
KBPT	1353	14	9	72	60	5		3003	170	10		CLR						
KBPT	1453	17	10	62	70	8		3004	172	10		CLR						
KBPT	1553	21	10	51	90	7		3004	173	10		CLR						
KBPT	1653	22	9	44	110	6		3003	169	10		CLR						
KBPT	1753	23	9	40	100	8		3001	161	10		CLR		24	8			
KBPT	1853	23	8	38	110	4		2998	152	10		CLR						
KBPT	1953	25	8	33	120	7	15	2995	143	10		CLR						
KBPT	2053	24	8	35	90	8		2995	141	10		CLR						
KBPT	2153	23	9	41	130	9		2995	141	10		CLR						
KBPT	2253	21	11	53	130	8		2995	142	10		CLR						

Data for 28 Oct 2022 (UTC)

ID	TIME	T	TD	RH	DIR	SPD	GST	ALT	SLP	VIS	CIL	COV	WX	MAX	MIN	PR6	PR24	SC	
KBPT	2353	17	11	67	160	4		2996	144	10		CLR		25	17				
KBPT	0053	16	11	75	150	3		2997	149	10	70	FEW							
KBPT	0153	15	12	83	100	4		2999	154	10		CLR							
KBPT	0253	17	14	86	100	7		3000	157	10		CLR							
KBPT	0353	16	14	90	90	4		3000	157	10		CLR							
KBPT	0453	16	15	93	0	0		3000	159	10	65	BKN							
Event	0515																		
KBPT	0553	17	16	93	80	4		2999	154	10	75	FEW		25	8				
KBPT	0653	19	18	90	70	5		2999	155	5	70	BKN	BR						
KBPT	0753	18	18	97	340	9		3001	163	5	33	OVC	-RA_B						
KBPT	0853	17	17	97	360	8		3001	160	4	46	OVC	RA_BR						
KBPT	0953	17	17	97	70	10		3000	157	6	55	OVC	VCTS_						
KBPT	1053	17	17	97	80	11		2997	148	9	70	BKN							
KBPT	1153	18	17	97	80	13	19	2997	149	9	65	BKN	-RA	19	17	8			

A review of the observations indicated no precipitation during the 24-hours prior to the accident. Thunderstorms and rain showers were reported beginning at 0231 CDT, with heavy rain reported at 0331 CDT with 0.32 inches of rainfall reported at 0700 CDT. At the time of the accident the following conditions were reported.

Weather observation for KBPT at 2353 CDT, automated, wind calm, visibility 10 miles or more, broken clouds at 6,500 ft agl, temperature 16°Celsius (C) (64°F), dew point temperature 15°C (59°F), altimeter 30.00 inches of mercury (inHg). Remarks: automated station with a precipitation discriminator, sea-level pressure 1015.9-hPa, temperature 16.1°C, dew point temperature 15.0°C.

Beaumont Municipal Airport (KBMT), Beaumont, Texas, elevation of 32 ft. Had an Automated Weather Observation System (AWOS)

Data for 27 Oct 2022 (UTC)

ID	TIME	T	TD	RH	DIR	SPD	GST	ALT	SLP	VIS	CIL	COV	WX	MAX	MIN	PR6	PR24	SC
KBMT	2355	18	5	42	20	3		999		10		CLR		24	18			
KBMT	0055	14	6	57	0	0		000		10		CLR						
KBMT	0155	13	7	65	0	0		001		10		CLR						
KBMT	0255	11	7	76	0	0		002		10		CLR						
KBMT	0355	11	8	80	0	0		002		10		CLR						
KBMT	0455	10	8	84	0	0		002		10		CLR						
KBMT	0555	9	8	92	0	0		002		10		CLR		24	6			
KBMT	0655	8	7	95	0	0		002		10		CLR						
KBMT	0755	7	7	97	0	0		002		10		CLR						
KBMT	0855	7	6	95	0	0		001		10		CLR						
KBMT	0955	7	6	97	0	0		001		10		CLR						
KBMT	1055	8	6	90	0	0		002		10		CLR						
KBMT	1155	8	6	88	20	3		002		10		CLR		9	6			
KBMT	1255	9	6	82	40	4		003		10		CLR						
KBMT	1355	13	7	65	60	4		005		10		CLR						
KBMT	1455	17	8	53	80	7		005		10		CLR						
KBMT	1555	20	7	44	70	7		005		10		CLR						
KBMT	1655	22	6	35	110	5		003		10		CLR						
KBMT	1755	24	5	30	80	4		001		10		CLR		24	7			
KBMT	1855	24	5	29	140	4		998		10		CLR						
KBMT	1955	25	5	27	120	5		996		10		CLR						
KBMT	2055	25	6	28	110	7		994		10		CLR						
KBMT	2155	24	5	29	120	4		995		10		CLR						
KBMT	2255	23	5	32	140	6		995		10		CLR						

Data for 28 Oct 2022 (UTC)

ID	TIME	T	TD	RH	DIR	SPD	GST	ALT	SLP	VIS	CIL	COV	WX	MAX	MIN	PR6	PR24	SC
KBMT	2355	19	9	52	160	5		996		10		CLR		25	19			
KBMT	0055	17	10	62	150	3		998		10	70	OVC						
KBMT	0155	16	12	74	140	4		999		10		CLR						
KBMT	0255	15	12	82	0	0		001		10	80	SCT						
KBMT	0355	16	13	81	90	3		000		10		CLR						
KBMT	0455	14	12	89	0	0		001		10	65	BKN						
Event	0515																	
KBMT	0555	16	14	85	50	4		999		10	85	BKN		25	6			
KBMT	0655	16	14	90	320	3		002		10	65	BKN						
KBMT	0755	16	15	93	330	3		003		4	35	OVC	RA					
KBMT	0855	16	15	94	60	4		002		5	46	OVC	RA					
KBMT	0955	17	16	96	60	7		998		1.5	19	OVC	+TSRA					

No precipitation was reported during the 24-hours prior to the accident, with rain first reported at 0235 CDT after the accident on October 28, 2022. At the approximate time of the accident the following conditions were being reported:

Weather observation for KBMT at 0015 CDT, automated, wind calm, visibility 10 miles or more, broken clouds at 6,500 ft agl, temperature 16°C (64°F), dew point temperature 14°C (57°F), altimeter 30.01 inHg. Remarks: automated station with a precipitation discriminator, lightning distant northwest, temperature 15.7°C, dew point temperature 13.8°C.

Astronomical Conditions - the United States Naval Observatory website provided the following astronomical conditions for the accident site coordinates for the period.

<u>Sun/Moon</u>	<u>Time (CDT)</u>
Moonrise	0948 October 27th
Sunset	1833
End Civil Twilight	1858
Moonset	2016
Accident	0015 October 28th
Begin Civil Twilight	0703
Sunrise	0727
Moonrise	1057
Moonset	2108

At the time of the accident both the Sun and the Moon were more than 15° below the horizon and provided no illumination over the area. The phase of the Moon was a waxing crescent with about 14% of the Moon's visible disk illuminated.

Additional Details

NTSB Weather Preliminary Worksheet

NTSB Case number: RRD23FR002 Key code: 106217
Date: October 28, 2022 Julian date:
Time: 0015 CDT UTC: (+5) 0515Z
Location: Beaumont, Texas
Coordinates: 30.067398N 94.076185W Elevation:
Rail accident: switch operator Fatal: 1
IIC: Troy Lloyd

Request: Brief precip 12-hour period and astronomical conditions. Requested: 11/2/2022

Observations – the area was documented using official Aviation Routine Weather Reports (METAR) and Aviation Selected Special Weather Reports (SPECI). Cloud heights are reported above ground level (agl) in the following section, and the magnetic variation was estimated at 1.5° west based on the latest sectional chart for the area.

Jack Brooks Regional Airport (KBPT), Beaumont/Port Arthur, Texas, elevation of 15 ft had an Automated Surface Observation System (ASOS) and reported the following conditions surrounding the period from 1900 CDT on October 26 through 0700 CDT on October 28, 2022. The following table provides time (UTC), temperature (T) and dew point temperature (Td) in degrees Celsius, relative humidity (RH%), Wind direction and wind speed (KT), wind gust (kt), altimeter (ALT) in inches of Mercury, sea-level pressure (SLP), visibility (VIS) in statute miles, ceiling (CIG) in 100's ft, sky cover (COV), weather phenomena (WX), maximum (MAX) and minimum (MIN) temperature C, 6-hour precipitation (PR6), and 24-hour precipitation (PR24).

Data for 27 Oct 2022 (UTC)																		
ID	TIME	T	TD	RH	DIR	SPD	GST	ALT	SLP	VIS	CIL	COV	WX	MAX	MIN	PR6	PR24	SC
KBPT	2353	16	6	50	190	5		2998	151	10		CLR		25	16			
KBPT	0053	14	9	72	0	0		2999	156	10		CLR						
KBPT	0153	12	9	83	0	0		3000	158	10		CLR						
KBPT	0253	11	9	89	0	0		3001	160	10		CLR						
KBPT	0353	11	9	86	320	3		3001	161	10		CLR						
KBPT	0453	11	9	89	0	0		3002	164	10		CLR						
KBPT	0553	9	8	93	360	3		3000	159	10		CLR		25	7			
KBPT	0653	10	8	89	340	3		3000	159	10		CLR						
KBPT	0753	10	9	93	10	5		3001	160	10		CLR						
KBPT	0853	9	9	97	350	4		3000	158	10		CLR						
KBPT	0953	9	8	93	10	5		3000	157	10		CLR						
KBPT	1053	9	6	83	10	5		3000	159	10		CLR						
KBPT	1153	8	6	86	10	5		3001	162	10		CLR		11	8			
KBPT	1253	11	8	83	30	5		3002	165	10		CLR						
KBPT	1353	14	9	72	60	5		3003	170	10		CLR						
KBPT	1453	17	10	62	70	8		3004	172	10		CLR						
KBPT	1553	21	10	51	90	7		3004	173	10		CLR						
KBPT	1653	22	9	44	110	6		3003	169	10		CLR						
KBPT	1753	23	9	40	100	8		3001	161	10		CLR		24	8			
KBPT	1853	23	8	38	110	4		2998	152	10		CLR						
KBPT	1953	25	8	33	120	7	15	2995	143	10		CLR						
KBPT	2053	24	8	35	90	8		2995	141	10		CLR						
KBPT	2153	23	9	41	130	9		2995	141	10		CLR						
KBPT	2253	21	11	53	130	8		2995	142	10		CLR						

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KBPT	2353	17	11	67	160	4		2996	144	10		CLR		25	17			
KBPT	0053	16	11	75	150	3		2997	149	10	70	FEW						
KBPT	0153	15	12	83	100	4		2999	154	10		CLR						
KBPT	0253	17	14	86	100	7		3000	157	10		CLR						
KBPT	0353	16	14	90	90	4		3000	157	10		CLR						
KBPT	0453	16	15	93	0	0		3000	159	10	65	BKN						
Event 0515																		
KBPT	0553	17	16	93	80	4		2999	154	10	75	FEW		25	8			
KBPT	0653	19	18	90	70	5		2999	155	5	70	BKN BR						
KBPT	0753	18	18	97	340	9		3001	163	5	33	OVC -RA_B						
KBPT	0853	17	17	97	360	8		3001	160	4	46	OVC RA_BR						
KBPT	0953	17	17	97	70	10		3000	157	6	55	OVC VCTS_						
KBPT	1053	17	17	97	80	11		2997	148	9	70	BKN						
KBPT	1153	18	17	97	80	13	19	2997	149	9	65	BKN -RA	19	17		8		

A review of the observations indicated no precipitation during the 24-hours prior to the accident. Thunderstorms and rain showers were reported beginning at 0231 CDT, with heavy rain reported at 0331 CDT with 0.32 inches of rainfall reported at 0700 CDT. At the time of the accident the following conditions were reported.

Weather observation for KBPT at 2353 CDT, automated, wind calm, visibility 10 miles or more, broken clouds at 6,500 ft agl, temperature 16°Celsius (C) (64°F), dew point temperature 15°C (59°F), altimeter 30.00 inches of mercury (inHg). Remarks: automated station with a precipitation discriminator, sea-level pressure 1015.9-hPa, temperature 16.1°C, dew point temperature 15.0°C.

Beaumont Municipal Airport (KBMT), Beaumont, Texas, elevation of 32 ft. Had an Automated Weather Observation System (AWOS)

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KBMT	2355	18	5	42	20	3		999		10		CLR		24	18			
KBMT	0055	14	6	57	0	0		000		10		CLR						
KBMT	0155	13	7	65	0	0		001		10		CLR						
KBMT	0255	11	7	76	0	0		002		10		CLR						
KBMT	0355	11	8	80	0	0		002		10		CLR						
KBMT	0455	10	8	84	0	0		002		10		CLR						
KBMT	0555	9	8	92	0	0		002		10		CLR		24	6			
KBMT	0655	8	7	95	0	0		002		10		CLR						
KBMT	0755	7	7	97	0	0		002		10		CLR						
KBMT	0855	7	6	95	0	0		001		10		CLR						
KBMT	0955	7	6	97	0	0		001		10		CLR						
KBMT	1055	8	6	90	0	0		002		10		CLR						
KBMT	1155	8	6	88	20	3		002		10		CLR		9	6			
KBMT	1255	9	6	82	40	4		003		10		CLR						
KBMT	1355	13	7	65	60	4		005		10		CLR						
KBMT	1455	17	8	53	80	7		005		10		CLR						
KBMT	1555	20	7	44	70	7		005		10		CLR						
KBMT	1655	22	6	35	110	5		003		10		CLR						
KBMT	1755	24	5	30	80	4		001		10		CLR		24	7			
KBMT	1855	24	5	29	140	4		998		10		CLR						
KBMT	1955	25	5	27	120	5		996		10		CLR						
KBMT	2055	25	6	28	110	7		994		10		CLR						
KBMT	2155	24	5	29	120	4		995		10		CLR						
KBMT	2255	23	5	32	140	6		995		10		CLR						

Data for 28 Oct 2022 (UTC)

ID	TIME	T	TD	RH	DIR	SPD	GST	ALT	SLP	VIS	CIL	COV	WX	MAX	MIN	PR6	PR24	SC
KBMT	2355	19	9	52	160	5		996		10		CLR		25	19			
KBMT	0055	17	10	62	150	3		998		10	70	OVC						
KBMT	0155	16	12	74	140	4		999		10		CLR						
KBMT	0255	15	12	82	0	0		001		10	80	SCT						
KBMT	0355	16	13	81	90	3		000		10		CLR						
KBMT	0455	14	12	89	0	0		001		10	65	BKN						
Event	0515																	
KBMT	0555	16	14	85	50	4		999		10	85	BKN		25	6			
KBMT	0655	16	14	90	320	3		002		10	65	BKN						
KBMT	0755	16	15	93	330	3		003		4	35	OVC	RA					
KBMT	0855	16	15	94	60	4		002		5	46	OVC	RA					
KBMT	0955	17	16	96	60	7		998		1.5	19	OVC	+TSRA					

No precipitation was reported during the 24-hours prior to the accident, with rain first reported at 0235 CDT after the accident on October 28, 2022. At the approximate time of the accident the following conditions were being reported:

Weather observation for KBMT at 0015 CDT, automated, wind calm, visibility 10 miles or more, broken clouds at 6,500 ft agl, temperature 16°C (64°F), dew point temperature 14°C (57°F), altimeter 30.01 inHg. Remarks: automated station with a precipitation discriminator, lightning distant northwest, temperature 15.7°C, dew point temperature 13.8°C.

Astronomical Conditions - the United States Naval Observatory website provided the following astronomical conditions for the accident site coordinates for the period.

<u>Sun/Moon</u>	<u>Time (CDT)</u>
Moonrise	0948 October 27th
Sunset	1833
End Civil Twilight	1858
Moonset	2016
Accident	0015 October 28th
Begin Civil Twilight	0703
Sunrise	0727
Moonrise	1057
Moonset	2108

At the time of the accident both the Sun and the Moon were more than 15° below the horizon and provided no illumination over the area. The phase of the Moon was a waxing crescent with about 14% of the Moon's visible disk illuminated.