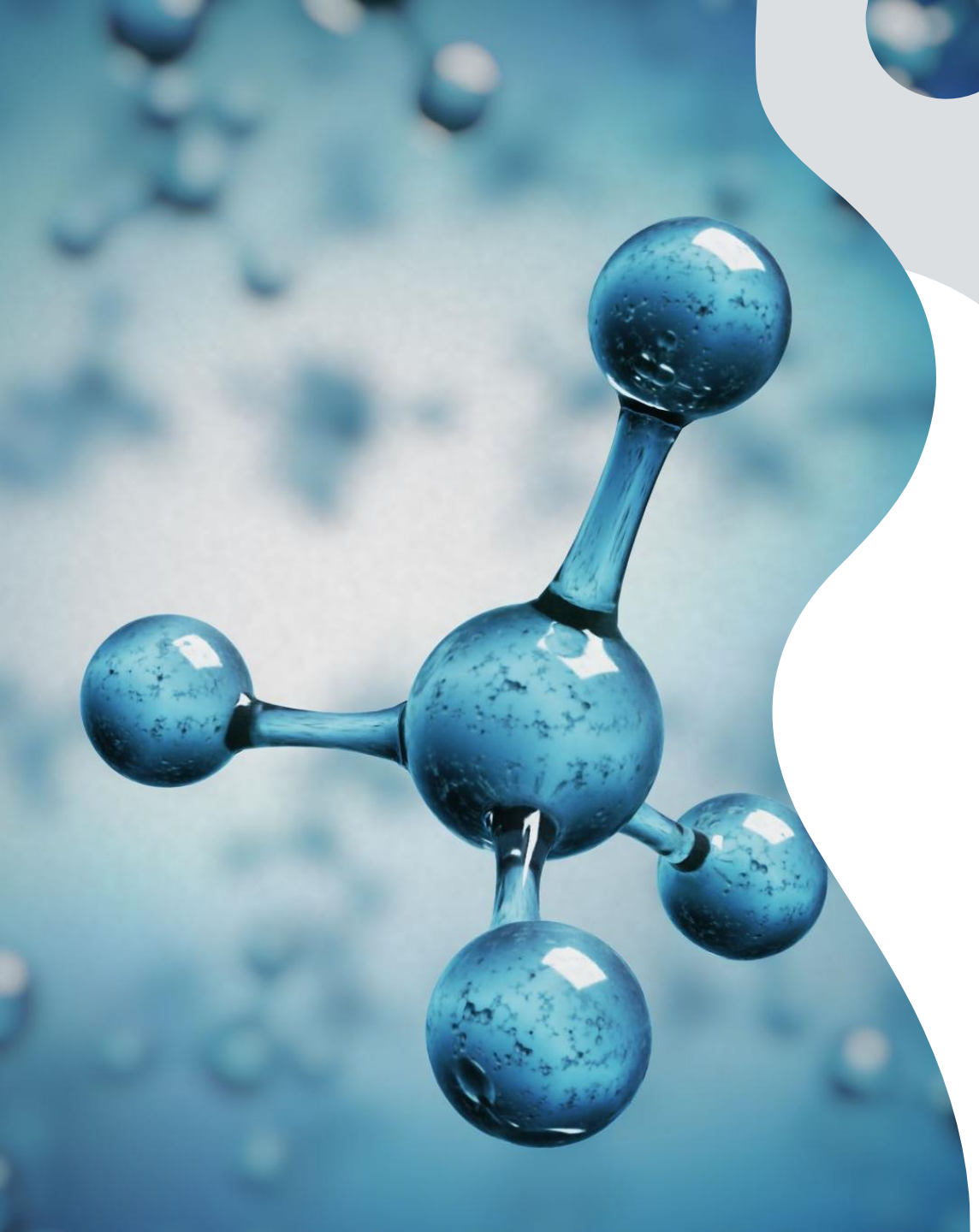
How to Use Experts Effectively

by Don Flanary



Intoxication Case implicate many scientific fields

- Police procedure/ SFSTs
  - HGN/ Walk and Turn/ One Legged Stand
- Phlebotomy
- Toxicology
  - Gas Chromatography
  - Breathalyzers
- Accident Reconstruction

Providing Effective Assistance of Counsel

The Duty to Investigate

One of the most common forms of ineffective assistance of counsel

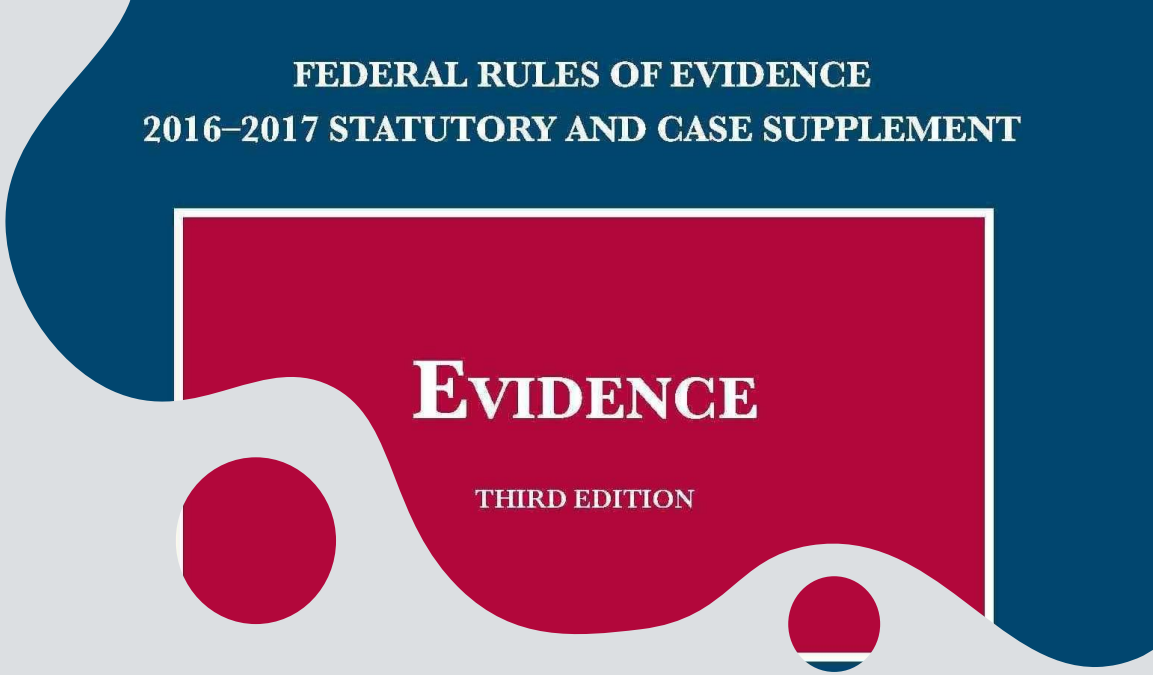
The Duty to Consult an Expert

ABA Standards & Experts

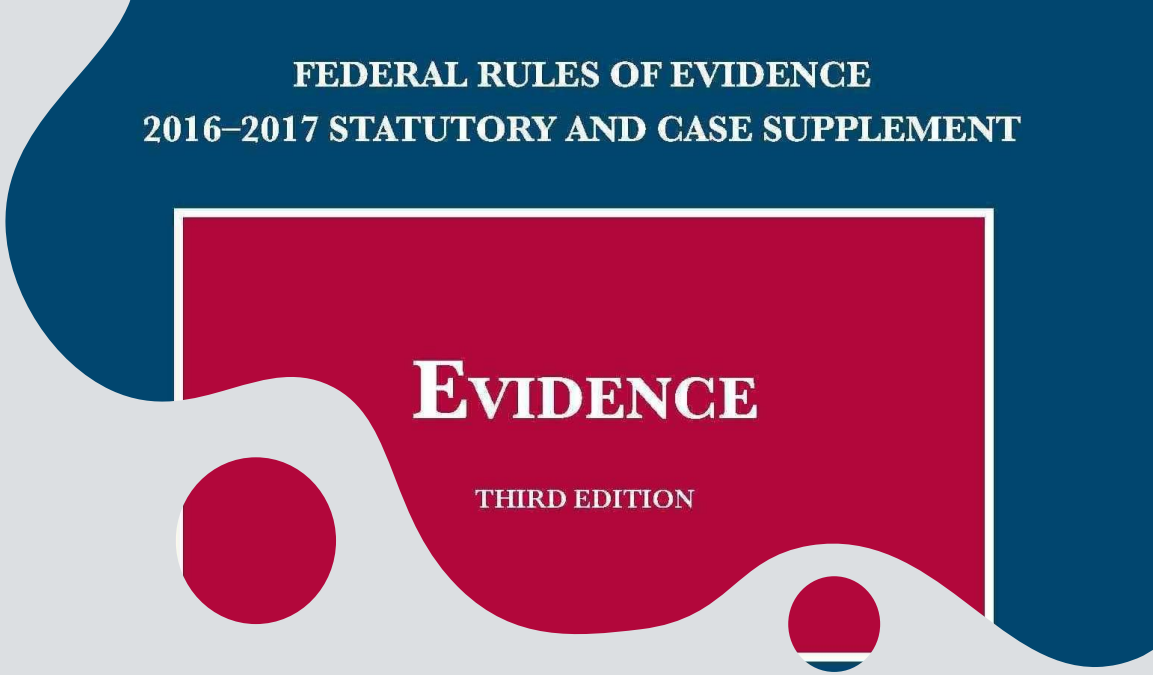
Defense Counsel should determine whether the client's interests would be served by engaging fact investigators, forensic, accounting or other experts, or other professional witnesses such as sentencing specialists or social workers, and if so, consider, in consultation with the client, whether to engage them.

If the client lacks sufficient resources to pay for necessary investigations, counsel should seek resources from the court, the government, or donors.

Experts & the Rules of Evidence



702 allows for expert testimony if the expert's scientific, technical, or other specialized knowledge will help the trier of facts to understand the evidence or to determine a fact in issue.



State of Texas v. Jones

Charges:

Intoxication Manslaughter

Manslaughter

Mr. Jones

Deputy United States Marshal

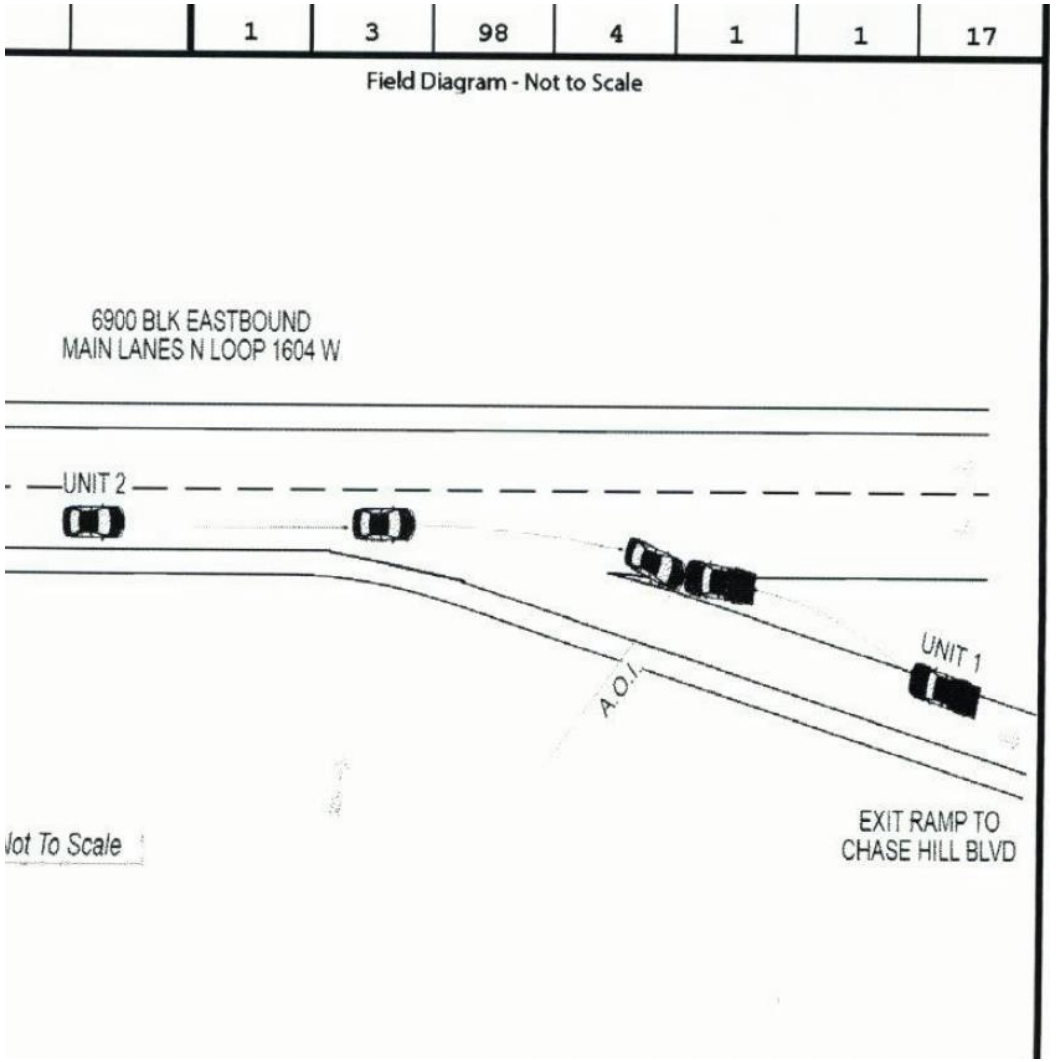
No Criminal History

Wrong way driving

Drove up the exit ramp

Loop 1604

Drove into Traffic



Red circle – approximate location of accident.

Suspect vehicle

Curved red line – possible route of vehicle until crashing

Head on Collision

Killed 22 year old woman

Leaving a bible study

12:15 am

Arrested for DWI

Jones wanted to fight!

So he hired these Goof Balls!

Mark handled the Intoxication Issues

Don handled the Accident Issues


The Toxicologists

Amanda Culbertson

Dr. Jimmie Valentine

Qualifications

A I've testified in other states.
Q Okay. And what areas have you been qualified to testify in?
A Forensic toxicology, forensic chemistry, analytical chemistry. Sometimes my testimony goes into phlebotomy, the portion of the blood draw that would impact the results of any blood alcohol testing.

Degrees

Q What were those degrees?
A A bachelor of science degree in biology and a bachelor of science degree in chemistry. And that chemistry degree was ACS certified and ACS stands for the American Chemical Society.
Q Okay. So that was in what year you got a degree in biology and chemistry ACS certified?
A I graduated in 1999.
Q After that did you obtain a master's?
A I did.
Q Where did you get your master's from?

A University of Michigan.
Q What is your master's in?
A It's in analytical chemistry.
Q What we're dealing with today?
A That is correct.

Also a Lawyer

A I have a juris doctorate or JD from South Texas College of Law.

Q So you're not only a master's in license, you're also a lawyer?

A I am a lawyer.

Q Are you admitted to practice in the State of Texas?

A I am.

Q Pass the Texas bar?

A I did.

Worked on hundreds of Cases with Mark

Q Okay. And do you see Ms. DeKing in the court today?
A I do not.
Q Okay. You would say the exact same thing that you're going to state on the stand today to Ms. DeKing and her entire laboratory, correct?
A I would.
Q Let me ask you: Over the past ten years, how many cases have I sent you to analyze?
A I don't have an exact number. Probably several hundred.

Problems with the Blood Draw

Q Did you review the video in this case?
A I did.
Q How did what she did impact the testing in this case?
A Well, there were two main issues with the way that she drew the blood. First she cleaned the site with betadine or it's also called povidone-iodine and that's proper. But in order for that to be effective, it has to dry on the skin for one and a half to two minutes, and in the video it's very clear that it's not dry because she touches the site, which she's not supposed to do, after it's been cleaned, gets the betadine on her fingers, and we can see it sticking to things in the video so we know it's not -- it's not dry.

Does Jones look Intoxicated on the Video?

EXAMINATION

BY MR. THIESSEN:

Q Ms. Culbertson, I want to ask you the same. To be fair, you were in the courtroom when Ms. DeKing testified, right?

A I was.

Q The first question I came out of the gate and asked her, to be fair, I asked her the same thing. Was Jonathan Jones intoxicated at the time of driving?

A I don't know.

Q Does Jonathan Jones look intoxicated at the time of the driving -- sorry. Does Jonathan Jones look intoxicated the time of the blood draw?

A No.


SFST Expert

Lance Platt

A No, sir.
Q That means you can count any of these clues as clues of intoxication and not something else.
A In my opinion, no, in this particular case.
Q In your particular case, what do you believe these clues -- well, is it even possible to determine that these clues are a result of intoxication or a head injury?
A That's an unknown.
Q And you said something. What should De La Rosa have done that would have helped everyone in this case?

None of the Clues of Intoxication Count

The Accident Reconstructionist

Dr. Jahan Eftekhar

Purpose of Hiring Dr. Eftekhar

What was the sequence of events that resulted in this tragic crash?

Why this crash happened?

Was this crash avoidable?

Was this crash survivable?

Work Performed by Dr. Eftekhar

Review of all discovery materials and photographs

Site Inspection

Crash Reconstruction and Analysis

Crash and Injury Causation Analysis

Qualifications

EXAMINATION

BY MR. FLANARY:

Q Hi, Dr. Eftekhar. How do you -- how do you know me?

A By contacting me on this particular case. That's the only time I heard of you or met you.

Q Okay. And what is your expertise in?

A I'm a mechanical engineer by degree and I do biomechanics, biodynamics and mechanical engineering in general. In particular I do crash reconstruction.

MR. FLANARY: Okay. May I approach, Judge?

THE COURT: Yes.

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Academic Positions

from?

A I studied first at UT Austin and then went to UT Arlington, finish it over there.

Q Okay. Now talk to me about the courses that you've completed -- short courses that you've completed.

A After came a large number of courses in crash reconstruction, simulation, animation, injury causation, roll-over, low impact studies, motorcycle, heavy trucks, braking, human factors and so on.

Q Okay. And tell me about -- tell the jury about the courses that you taught.

A After that three different universities, actually four starting with UT Arlington, I start at Texas State, UT Austin, moved to San Antonio -- I retired to San Antonio. I was a chairman of mechanical engineering and biomechanics. I have taught 42 different subjects.

Hundreds of Publications

A Yes.

Q Okay. And then as far as your publications, your recent publications, how many publications have you made over the years approximately?

A There are over hundreds, you know. Recently there have been more into crash reconstruction, what was related to crash reconstruction. Like the last one we came up with a very

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innovative design to measure sites and vehicles using our iPhone or iPad as opposed to the old style that you use a rod and survey only points that you want. This one I can come to this courtroom, use my iPhone, walk around, processing my computer, then come back. For example, if I want run this test

Q Okay. And then the funded research, talk a little bit about the funded research.

A Research in different areas of mechanical engineering, but related to this crash reconstruction, I had researched on low impact and occupant injury. Low impact means accidents under 15 miles per hour speed.

Q Ok[illegible]ything else about you[illegible] and [illegible]l for the ju[illegible]

Academic Research

Q Okay. And how many times have you been qualified as an expert?
A I've never been disqualified so --
Q Okay.
A -- every time I testify.
Q Okay. How many times -- well, let's break it down. You've testified in civil cases and criminal cases; is that right?
A Yes.
Q And have you testified for both sides in a civil case?
A Yes.
Q Okay. What about on a criminal -- on a criminal case?
A Both sides.
Q So plaintiffs, defendants, the State and defendant in criminal cases?
A Yes.
Q About how many times have you testified or how ny cases have you had, let's just start there, for reconstruc n?
A I have had probably over 5,000 cases general and

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say probably 80 percent are crash reconstruction.

Qualifications to Testify

A Oh, by far, yes.

Q Okay. Do you have expertise in the causes and results of frontal crashes?

A Yes.

Q Do you have any expertise in air bag control units?

A Very much. I used to do research on air bag units.

Q Okay. Do you have expertise in calculating perception-response time?

A Yes.

Q Do you have expertise in vehicle restraint systems?

A Yes.

Q And do you have expertise in -- and what are vehicle restraint systems? What do they include?

A A restraint system is combination of air bag and seat belt. The air bag is not going to be effective in the absence of seat belt. That's why they call them restraint system ar they are together. A restraint system can be seat belt wi pretensioner or without the pretensioner.

Q You said pretensioner?

A Yes.

Q What is a pretensioner?

A For the air bag to be effective, the occupant has to stay in front of the air bag. When the occupant is out of position, which is called OOP, then the air bag causes damage and is not effective. So when the seat belt is used, seat belt

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Expertise in Frontal Crashes and Vehicle Restrain Systems

Delta V

Q Do you have experience in Delta V calculations in vehicle collisions?

A Yes. And Delta V is really a term -- it's misused a lot, so I --

Q How is it misused?

A Delta V merely means change of velocity. So if I'm driving my car and gradually come to stop from 30 miles per hour, I see a stop sign, it takes me Delta V of 30 miles

15 A Yes.

16 Q Okay. Did you inspect the site?

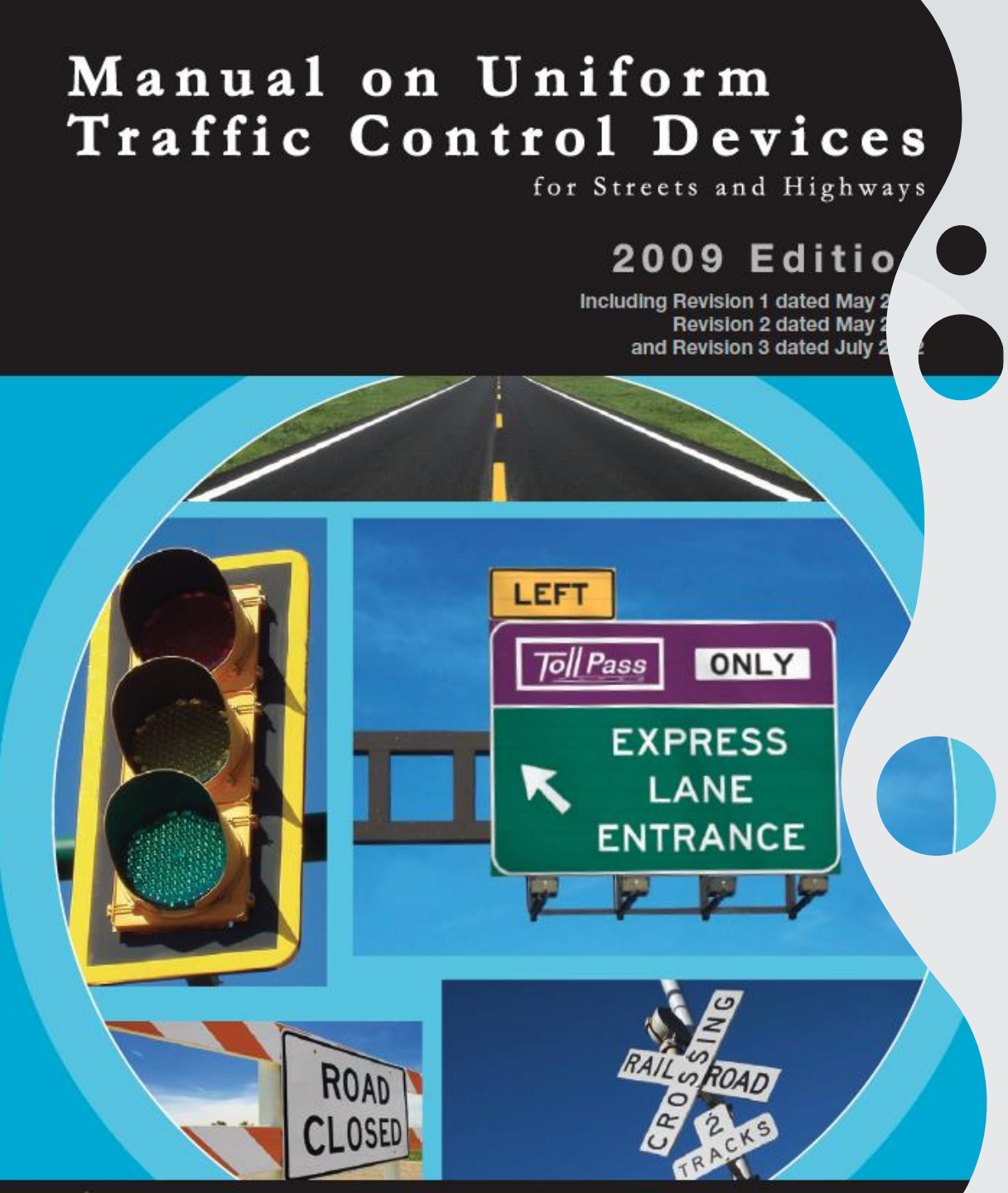
17 A Yes.

18 Q Okay. Now you were a professor at UTSA for how many

Site Inspection

Review of Traffic Control Device Standards

Q Did you study the data?
A Yes.
Q Did you review any relevant traffic control device standards?
A Yes.
Q For the State of Texas?



Manuel on Uniform Traffic Control Devices

Published by the U.S. Department of Transportation

Contains all the Rules of the Road

Complete guide to all traffic signs

864 pages

MUTCD and Infotainment GPS Data

the vehicles.

Q Okay.

A And Texas has adapted the national handbook. So it's called Texas MUTCD, M-U-T-C-D, Manual Uniform Traffic Control Devices.

Q Okay. Did you review any infotainment GPS vehicle data?

A One.

Q Okay. When you say one, what do you mean?

Infotainment Data

...as ope... ...en it was put ...reverse gear,
...f that nature.

Q Now that infotainment system data downloaded with Berla program, you reviewed this Berla infotainment data in this case, did you not?

A Yes.

Q And it was for the Ford; isn't that correct?

A That's correct.

Met up with other Marshals for drinks

Receipts showed he only bought 2 beers

Using GPS Data

SOFTWARE VERSION NUMBER	3.6.2
ENTERED VIN	
VEHICLE VIN	1FTFW1E66EFA47565
VEHICLE YEAR	2014
VEHICLE MANUFACTURER	Ford
VEHICLE MODEL	F-150
VEHICLE TRIM LEVEL	
VEHICLE ECU	Sync Gen2
AUTHOR	jeffrey.phillips@bexar.org
ACQUISITION SUMMARY	

ATTACHED DEVICES

DEVICE NAME	DEVICE TYPE	MANUFACTURER	MODEL	INTERFACE TYPE	UNIQUE NUMBER TYPE	UNIQUE NUMBER
		MAC-> Apple			Bluetooth Address	7C019106F3C0
		MAC-> Apple			Bluetooth Address	C885507FECA8
ADATA UFD	USB-1			USB	N/A	MssingBTaddress5
Galaxy Note9	3, 2	MAC-> SamsungE			Bluetooth Address	F4C248695CCF
iPhone	Phone-5				N/A	MssingBTaddress7
iPhone	3, 2	MAC-> Apple			Bluetooth Address	ACE4B5C82D4D
iPhone		MAC-> Apple			Bluetooth Address	0056CDE54E9F
Jessica Cervera		MAC-> Apple			Bluetooth Address	DC3714F34D0E
Jonathan's iPhone	3, 2	MAC-> Apple			Bluetooth Address	6C72E752D85F
Samsung Electronics Co., Ltd. SM-N960U	4				N/A	MssingBTaddress8
Samsung Electronics Co., Ltd.						

11/28/2019 11:52:00 PM	UTC	6502916754	Miguel Nunez-Ponce	My buddy	unread	F4C248695CCF
11/29/2019 1:14:00 AM	UTC	868722		USAA: Please review the following new document we've posted for you: CHECKING ******8687 NOV 2019 STATEMENT. Go to usaa.com/MyDocs to view. Reply HELP for help.	unread	F4C248695CCF
12/3/2019 8:03:00 PM	UTC	57660		Stage3Motorsports: Extended! One Day Sale on select deals Shop now: https://stage3motorsports.attn.tv/l/-sN/Q7OcO	unread	F4C248695CCF
12/4/2019 12:37:00 AM	UTC	2108753275	E B O	I need a back rub	unread	F4C248695CCF
12/4/2019 12:37:00 AM	UTC	2108753275	E B O	Lmaoo. Exausting day today	unread	F4C248695CCF
12/4/2019 12:37:00 AM	UTC	2108753275	E B O	Suits rock	unread	F4C248695CCF

CALL LOG ENTRIES

START TIME	TIMESTAMP TYPE	PHONE NUMBER	CONTACT NAME	CALL TYPE	DEVICE IDENTIFIER
9/5/2018 9:18:14 PM	UTC	2107275323		Incoming	F4C248695CCF
9/6/2018 8:18:48 PM	UTC	2108253802		Incoming	F4C248695CCF
9/14/2018 9:04:46 PM	UTC	5127732829		Incoming	F4C248695CCF
9/29/2018 10:05:31 PM	UTC	2108253802		Incoming	F4C248695CCF
10/1/2018 12:36:24 AM	UTC	2107275323		Incoming	F4C248695CCF
10/1/2018 12:47:35 PM	UTC	2108253802		Incoming	F4C248695CCF
10/1/2018 10:18:22 PM	UTC	2107275323		Incoming	F4C248695CCF
10/2/2018 11:02:08 PM	UTC	2108253802		Incoming	F4C248695CCF
10/3/2018 5:26:29 PM	UTC	2107926319		Incoming	F4C248695CCF

USB	USB Device Attached : Vendor:1256, ProductId:26720, Release:-1 at 2020-01-14 00:57:35	Device Attached	1/14/2020 12:57:35 AM	UTC	29.39615	-98.23893
USB	USB Device Attached : Vendor:1256, ProductId:26720, Release:-1 at 2020-01-14 00:57:44	Device Attached	1/14/2020 12:57:44 AM	UTC	29.39614	-98.23894
USB	USB Device Attached : Vendor:1256, ProductId:26720, Release:-1 at 2020-01-14 00:57:46	Device Attached	1/14/2020 12:57:46 AM	UTC	29.39614	-98.23894
USB	USB Device Attached : Vendor:1256, ProductId:26720, Release:-1 at 2020-01-14 00:57:48	Device Attached	1/14/2020 12:57:48 AM	UTC	29.39614	-98.23894

PARKING LIGHTS EVENTS

EVENT TYPE	IDENTIFIER	ACTION	DATE TIME	TIMESTAMP TYPE	LATITUDE	LONGITUDE	ALTITUDE
Parking Lights	Parking Lights Off at 2020-01-21 01:50:37	Off	1/21/2020 1:50:37 AM	UTC	29.47611	-98.7258	
Parking Lights	Parking Lights On at 2020-01-21 01:50:43	On	1/21/2020 1:50:43 AM	UTC	29.47611	-98.7258	
Parking Lights	Parking Lights Off at 2020-01-21 01:51:06	Off	1/21/2020 1:51:06 AM	UTC	29.47611	-98.7258	
Parking Lights	Parking Lights On at 2020-01-24 13:59:54	On	1/24/2020 1:59:54 PM	UTC	29.47607	-98.72576	
Parking Lights	Parking Lights Off at 2020-01-24 14:00:05	Off	1/24/2020 2:00:05 PM	UTC	29.47607	-98.72576	
Parking Lights	Parking Lights On at 2020-01-24 14:00:19	On	1/24/2020 2:00:19 PM	UTC	29.47607	-98.72576	
Parking Lights	Parking Lights On at 2020-01-20 01:07:21	On	1/20/2020 1:07:21 AM	UTC	29.49755	-98.71478	

System Log	Finished saving log file to flash at 2019-01-29 08:42:23	Finished saving	1/29/2019 8:42:23 AM	UTC	29.4766	-98.73303	

REBOOT EVENTS

EVENT TYPE	IDENTIFIER	ACTION	DATE TIME	TIMESTAMP TYPE	LATITUDE	LONGITUDE	ALTITUDE
Reboot	Reboot Power Removed at 2020-01-22 16:44:16	Power Removed	1/22/2020 4:44:16 PM	UTC	29.47583	-98.73204	
Reboot	Reboot Power Removed at 2017-03-07 08:27:04	Power Removed	3/7/2017 8:27:04 AM	UTC	29.52603	-98.71883	

TRACKS

ID	DATE / TIME	TIMESTAMP TYPE	LATITUDE	LONGITUDE	DISTANCE	SPEED	BEARING
			TRACK: RECOVERED0001				
1	4/21/2014 3:27:15 PM	UTC	26.85693	-99.24837			
			TRACK: RECOVERED0002				
2	5/28/2014 4:36:52 PM	UTC	26.91426	-99.27071			
3	5/28/2014 4:36:53 PM	UTC	26.91426	-99.27071		0 mph	0°
4	5/28/2014 4:36:54 PM	UTC	26.91426	-99.27071		0 mph	0°
			TRACK: RECOVERED0003				
5	6/28/2014 11:24:17 PM	UTC	27.45378	-99.47532			
6	6/28/2014 11:24:18 PM	UTC	27.45378	-99.47532		0 mph	0°
			TRACK: RECOVERED0004				

8104	1/31/2020 1:35:50 AM	UTC	29.47041	-98.69508	187.6 ft	64 mph	336°
8105	1/31/2020 1:35:51 AM	UTC	29.47065	-98.6952	95.5 ft	65.1 mph	336°
8106	1/31/2020 1:35:52 AM	UTC	29.47087	-98.69534	91.8 ft	62.6 mph	331°
8107	1/31/2020 1:35:53 AM	UTC	29.4711	-98.6955	98.1 ft	66.9 mph	329°
8108	1/31/2020 1:35:54 AM	UTC	29.47131	-98.69565	90.2 ft	61.5 mph	328°
8109	1/31/2020 1:35:55 AM	UTC	29.47153	-98.69579	91.8 ft	62.6 mph	331°
8110	1/31/2020 1:35:57 AM	UTC	29.47199	-98.69608	191.4 ft	65.3 mph	331°
8111	1/31/2020 1:35:58 AM	UTC	29.47222	-98.69622	95 ft	64.7 mph	332°
8112	1/31/2020 1:35:59 AM	UTC	29.47246	-98.69637	99.7 ft	68 mph	331°
8113	1/31/2020 1:36:00 AM	UTC	29.47268	-98.69653	95 ft	64.8 mph	328°
8114	1/31/2020 1:36:01 AM	UTC	29.47292	-98.69666	96.8 ft	66 mph	335°
8115	1/31/2020 1:36:02 AM	UTC	29.47315	-98.69681	96.5 ft	65.8 mph	330°
8116	1/31/2020 1:36:03 AM	UTC	29.47338	-98.69694	93.5 ft	63.8 mph	334°
8117	1/31/2020 1:36:04 AM	UTC	29.47361	-98.69707	93.5 ft	63.8 mph	334°
8118	1/31/2020 1:36:05 AM	UTC	29.47382	-98.69718	84.2 ft	57.4 mph	335°
8119	1/31/2020 1:36:06 AM	UTC	29.47405	-98.69731	93.5 ft	63.8 mph	334°
8120	1/31/2020 1:36:07 AM	UTC	29.47427	-98.69744	90.3 ft	61.5 mph	333°
8121	1/31/2020 1:36:08 AM	UTC	29.47449	-98.69756	88.8 ft	60.6 mph	335°
8122	1/31/2020 1:36:09 AM	UTC	29.47471	-98.69768	88.8 ft	60.6 mph	335°
8123	1/31/2020 1:36:10 AM	UTC	29.47492	-98.6978	85.6 ft	58.3 mph	334°
8124	1/31/2020 1:36:11 AM	UTC	29.47512	-98.69792	82.3 ft	56.1 mph	332°
8125	1/31/2020 1:36:12 AM	UTC	29.47533	-98.69805	87 ft	59.3 mph	332°
8126	1/31/2020 1:36:13 AM	UTC	29.47554	-98.6982	90.2 ft	61.5 mph	328°
8127	1/31/2020 1:36:14 AM	UTC	29.47572	-98.69836	83 ft	56.6 mph	322°

Central Standard Time

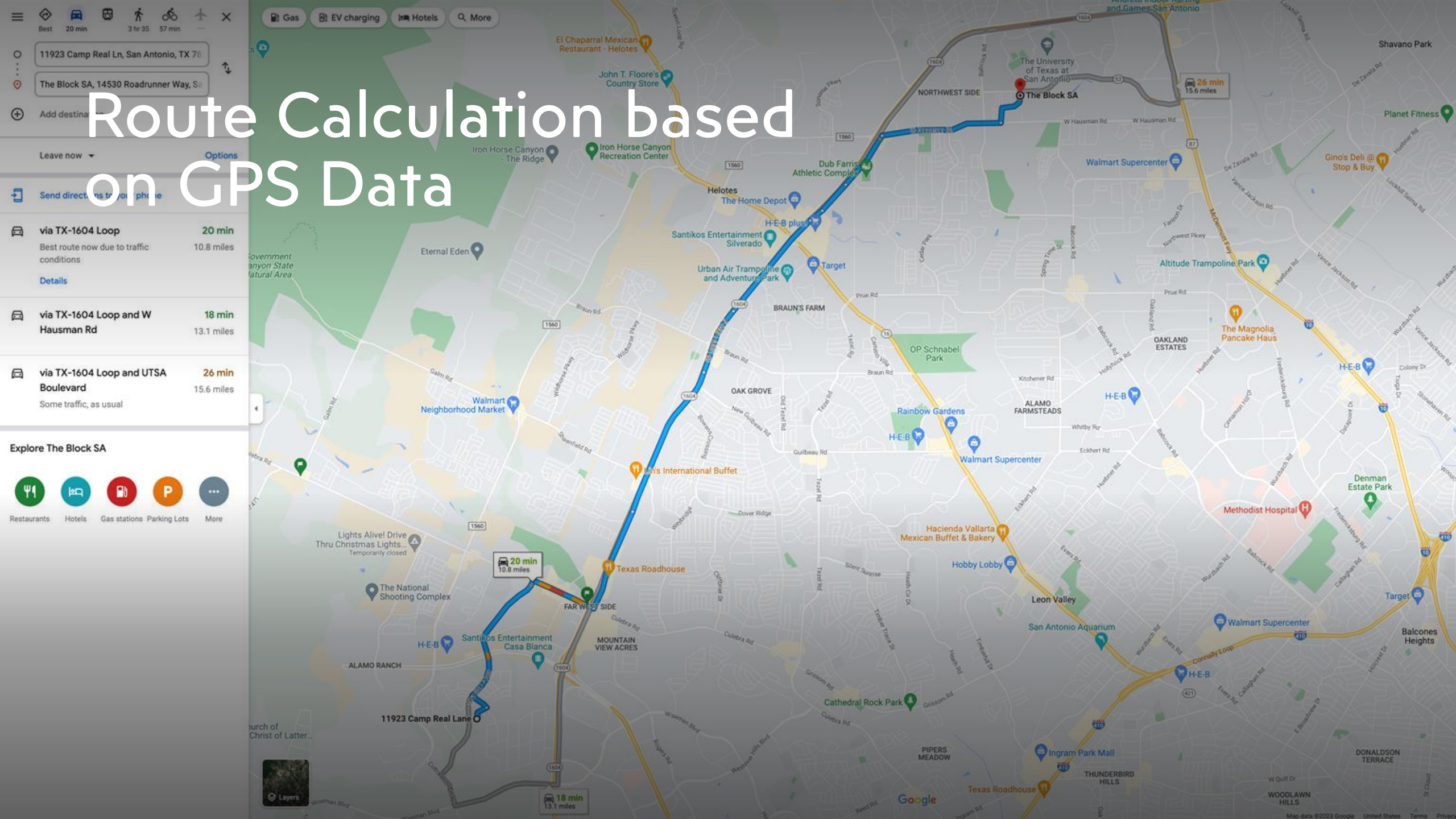
Central Standard Time is six hours behind the Coordinated Universal Time standard, written a
means to find the standard time in the zone you must subtract six hours from Coordinated Un
observing the time zone are primarily in North and Central... read more

01/30/2020 Change Date

Day	Morning/Evening	Night

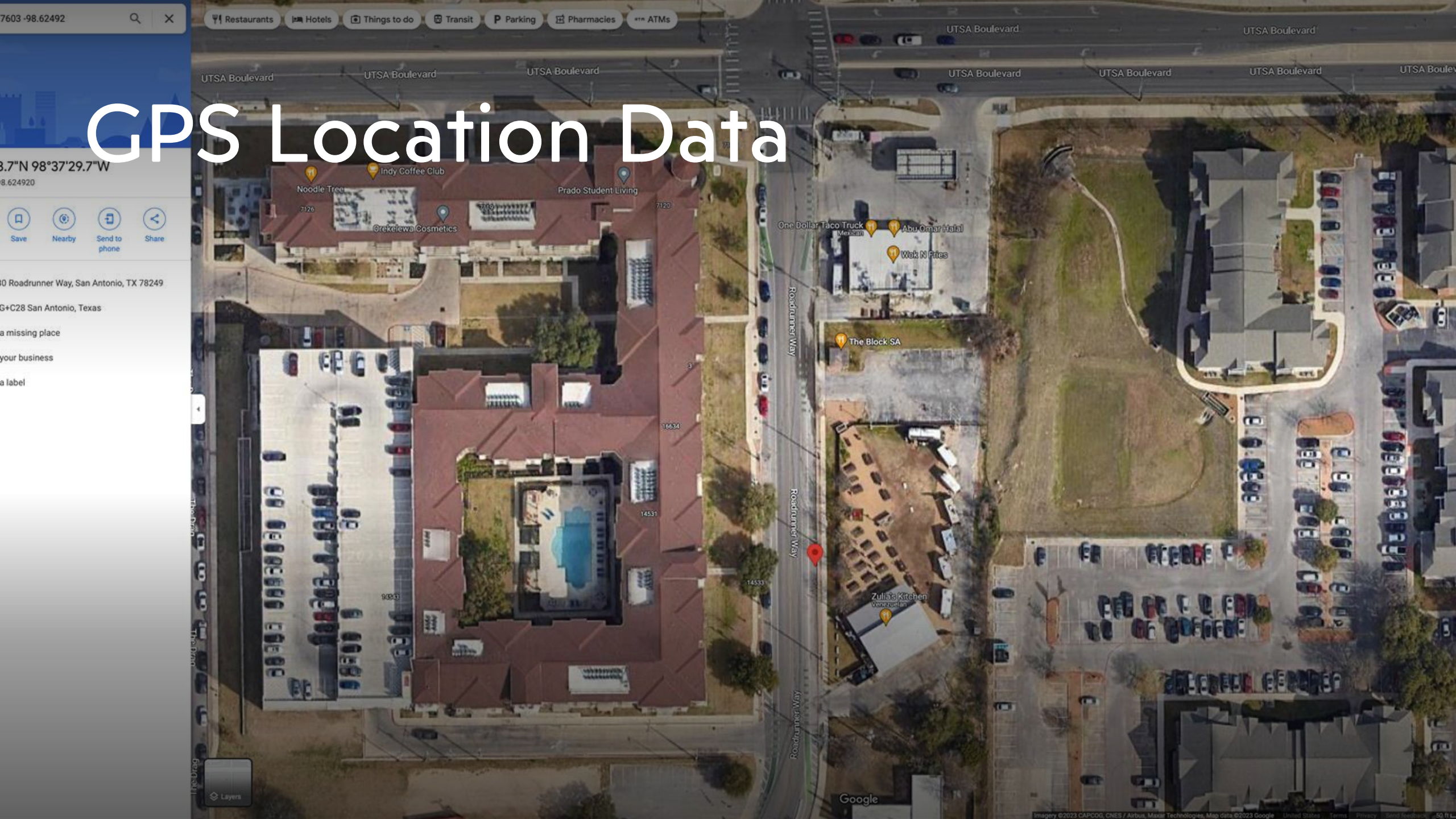
UTC	CST
01/30/20 12:00 AM in UTC is	01/29/20 06:00 PM in CST
01/30/20 01:00 AM in UTC is	01/29/20 07:00 PM in CST
01/30/20 02:00 AM in UTC is	01/29/20 08:00 PM in CST
01/30/20 03:00 AM in UTC is	01/29/20 09:00 PM in CST
01/30/20 04:00 AM in UTC is	01/29/20 10:00 PM in CST
01/30/20 05:00 AM in UTC is	01/29/20 11:00 PM in CST
01/30/20 06:00 AM in UTC is	01/30/20 12:00 AM in CST
01/30/20 07:00 AM in UTC is	01/30/20 01:00 AM in CST
01/30/20 08:00 AM in UTC is	01/30/20 02:00 AM in CST
01/30/20 09:00 AM in UTC is	01/30/20 03:00 AM in CST
01/30/20 10:00 AM in UTC is	01/30/20 04:00 AM in CST
01/30/20 11:00 AM in UTC is	01/30/20 05:00 AM in CST
01/30/20 12:00 PM in UTC is	01/30/20 06:00 AM in CST
01/30/20 01:00 PM in UTC is	01/30/20 07:00 AM in CST
01/30/20 02:00 PM in UTC is	01/30/20 08:00 AM in CST
01/30/20 03:00 PM in UTC is	01/30/20 09:00 AM in CST
01/30/20 04:00 PM in UTC is	01/30/20 10:00 AM in CST
01/30/20 05:00 PM in UTC is	01/30/20 11:00 AM in CST
01/30/20 06:00 PM in UTC is	01/30/20 12:00 PM in CST
01/30/20 07:00 PM in UTC is	01/30/20 01:00 PM in CST
01/30/20 08:00 PM in UTC is	01/30/20 02:00 PM in CST
01/30/20 09:00 PM in UTC is	01/30/20 03:00 PM in CST
01/30/20 10:00 PM in UTC is	01/30/20 04:00 PM in CST
01/30/20 11:00 PM in UTC is	01/30/20 05:00 PM in CST
01/31/20 12:00 AM in UTC is	01/30/20 06:00 PM in CST

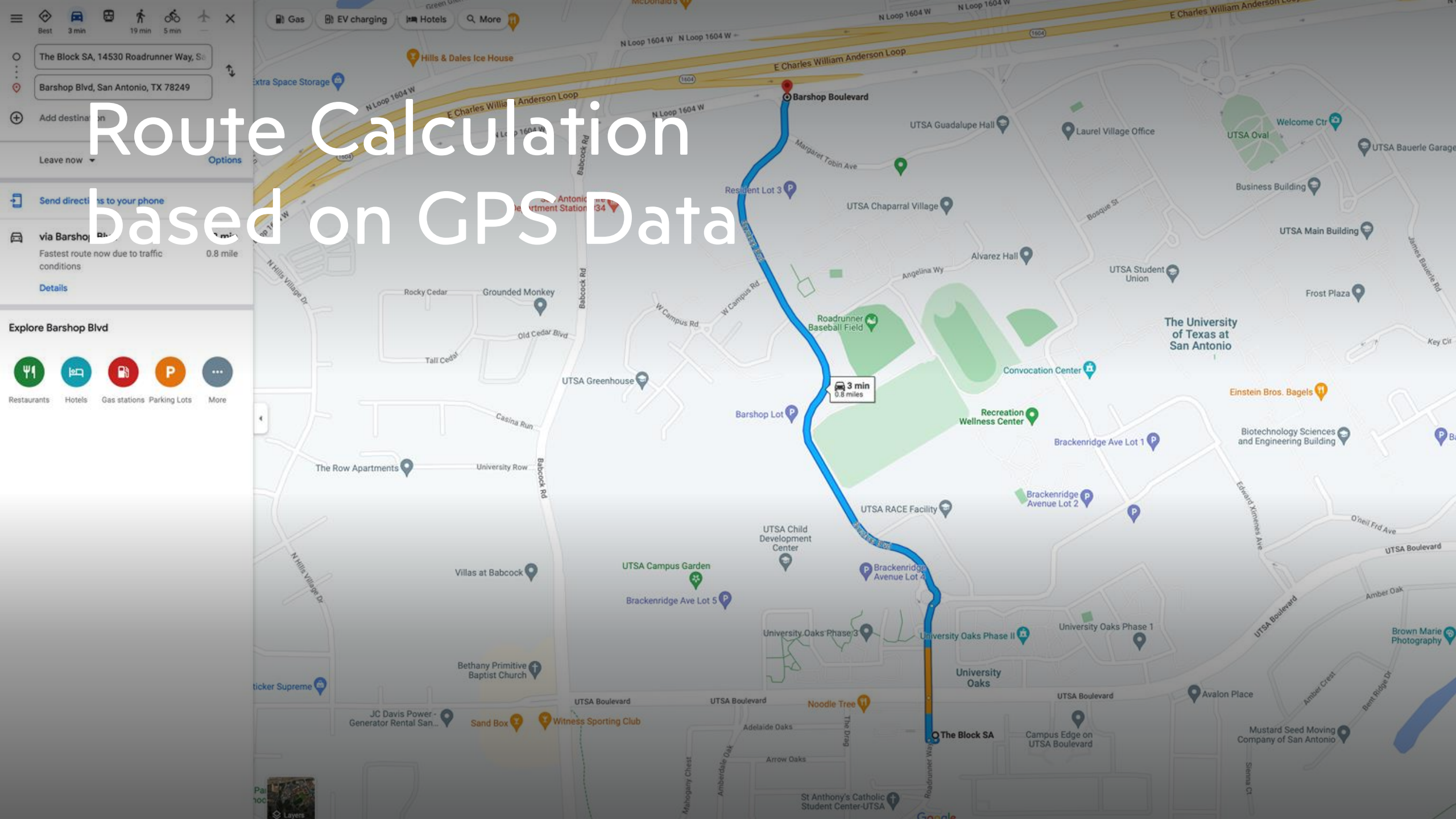
Converting from UTC to Local Time


Route Calculation based on GPS Data
Best
20 min
3 hr 35
57 min
11923 Camp Real Ln, San Antonio, TX 78
The Block SA, 14530 Roadrunner Way, S
Add destination
Leave now
Options
Send directions to your phone
via TX-1604 Loop
20 min
Best route now due to traffic conditions
10.8 miles
Details
via TX-1604 Loop and W Hausman Rd
18 min
13.1 miles
via TX-1604 Loop and UTSA Boulevard
26 min
15.6 miles
Some traffic, as usual
Explore The Block SA
Restaurants
Hotels
Gas stations
Parking Lots
More
Gas
EV charging
Hotels
More
El Chaparral Mexican Restaurant - Helotes
John T. Floore's Country Store
Iron Horse Canyon - The Ridge
Iron Horse Canyon Recreation Center
Eternal Eden
Helotes
The Home Depot
H-E-B plus
Santikos Entertainment Silverado
Urban Air Trampoline and Adventure Park
Target
BRAUN'S FARM
OP Schnabel Park
OAK GROVE
Walmart Neighborhood Market
Rainbow Gardens
H-E-B
Walmart Supercenter
ALAMO FARMSTEADS
OAKLAND ESTATES
The Magnolia Pancake Haus
Altitude Trampoline Park
Walmart Supercenter
Dub Farris Athletic Complex
NORTHWEST SIDE
The University of Texas at San Antonio
The Block SA
26 min
15.6 miles
Shavano Park
Planet Fitness
Gino's Deli @ Stop & Buy
Denman Estate Park
Methodist Hospital
Hacienda Vallarta Mexican Buffet & Bakery
Hobby Lobby
Leon Valley
Target
Walmart Supercenter
San Antonio Aquarium
Balcones Heights
Lights Alive! Drive Thru Christmas Lights
Temporarily closed
20 min
10.8 miles
Texas Roadhouse
The National Shooting Complex
FAR WEST SIDE
MOUNTAIN VIEW ACRES
Santikos Entertainment Casa Blanca
ALAMO RANCH
11923 Camp Real Lane
Cathedral Rock Park
PIPERS MEADOW
Ingram Park Mall
THUNDERBIRD HILLS
DONALDSON TERRACE
WOODLAWN HILLS
18 min
13.1 miles
Layers
Google


Route Calculation based on GPS Data
Gas
EV charging
Hotels
More
Options
Loop
20 min
10.8 miles
Loop and W
18 min
13.1 miles
Loop and UTSA
26 min
15.6 miles
Gas stations
Parking Lots
More
20 min
10.8 miles
18 min
Walmart Neighborhood Market
Lin's International Buffet
Texas Roadhouse
Walmart Supercenter
Target
The Block SA
Rainbow Gardens
Hacienda Vallarta Mexican Buffet & Bakery
Hobby Lobby
Methodist Hospital
San Antonio Aquarium
Ingram Park Mall
Google

GPS Location Data




Route Calculation
based on GPS Data
Best
3 min
19 min
5 min
The Block SA, 14530 Roadrunner Way, Se
Barshop Blvd, San Antonio, TX 78249
Add destination
Leave now
Options
Send directions to your phone
via Barshop Blvd
Fastest route now due to traffic conditions
0.8 mile
Details
Explore Barshop Blvd
Restaurants
Hotels
Gas stations
Parking Lots
More
Gas
EV charging
Hotels
More
N Loop 1604 W
E Charles William Anderson Loop
Barshop Boulevard
Hills & Dales Ice House
Extra Space Storage
Margaret Tobin Ave
Resident Lot 3
UTSA Guadalupe Hall
Laurel Village Office
UTSA Oval
Welcome Ctr
UTSA Bauerle Garage
Business Building
UTSA Chaparral Village
Bosque St
UTSA Main Building
Alvarez Hall
Angelina Wy
UTSA Student Union
Frost Plaza
James Bauerle Rd
Babcock Rd
Rocky Cedar
Grounded Monkey
Old Cedar Blvd
Tall Cedar
W Campus Rd
Roadrunner Baseball Field
The University of Texas at San Antonio
Key Cir
Convocation Center
UTSA Greenhouse
3 min
0.8 miles
Barshop Lot
Einstein Bros. Bagels
Recreation Wellness Center
Biotechnology Sciences and Engineering Building
Brackenridge Ave Lot 1
Casina Run
The Row Apartments
University Row
Brackenridge Avenue Lot 2
UTSA RACE Facility
Edward Kinereu Ave
O'neil Frd Ave
UTSA Boulevard
UTSA Child Development Center
Villas at Babcock
UTSA Campus Garden
Brackenridge Avenue Lot 4
Brackenridge Ave Lot 5
University Oaks Phase 3
University Oaks Phase II
University Oaks Phase 1
Amber Oak
Brown Marie Photography
Bethany Primitive Baptist Church
University Oaks
Avalon Place
Noodle Tree
JC Davis Power - Generator Rental San...
Sand Box
Witness Sporting Club
Adelaide Oaks
The Drag
The Block SA
Campus Edge on UTSA Boulevard
Mustard Seed Moving Company of San Antonio
Amber Crest
Bent Ridge Dr
Arrow Oaks
Mahogany Chest
Amberdale Oak
St Anthony's Catholic Student Center-UTSA
Roadrunner Way
Sienna Ct

Route Calculation based on GPS Data

Use of Google Earth to Document Scene

Q Did you review Mr. Jones' Google map activity data?
A Yes.
Q Okay. Did you review Mr. Jones' wife's communications with him?
A There was one page, yes.
Q Okay. Did you do a crash reconstruction analysis?
A Yes.
Q Did -- to your knowledge in your reports, did SAPD a reconstruction and analysis?
A No.
Q Okay. Did you do a crash and injury causation analysis?
A Yes.
Q Did SAPD do a crash and injury causation analysis?
A No.
Q And did you create diagrams of the crash based your analysis of the data?
A Yes.
Q All right. Did you create any impact point diagrams?
A Yes.
Q What is the difference between an impact point diagram and a diagram of the crash?
A Diagram of the crash generally speaking with scale -- is to scale, shows where the lanes are, where the objects are

Analysis of Data

Google Map Activity

Wife's Communications

SAPD Crash Reconstruction Analysis

Crash and Injury Causation Analysis

Crash Data Diagrams

Impact Data Diagrams

Site Research

Generated Simulations

Q And did [illegible] agram?

[illegible] have not seen one [illegible]

Q Okay. Did you create any simulations of the crash based upon your analysis of the data?

A Yes.

Q Did you consult your knowledge and expertise in scientific studies to conduct that analysis?

A Yes.

Direction Vehicles Turned

Cross of Det. Salazar

Not an engineer

No Doctoral Degrees

No Masters Degrees

No Batchelor's Degrees in Physics or Engineering

Never published

BY MR. FLANARY:

Q Hello, Ms. Salazar, how are you?

A Hi.

Q We've never met before, have we?

A No.

Q Okay. And now you're not an engineer.

A Correct.

Q Right. And you don't have a doctorate in any degrees, do you?

A No.

Q Or a master's?

A No.

Q And your bachelor's, it's not in physics or engineering, is it?

A No, it's not.

Q Okay. And you've never taken engineering classes, have you?

A No.

Q And you've never -- you've never been -- you never published any materials or literature on engineering or accident reconstruction, have you?

A No.

Q You've never taught any classes on engineering or accident construction, have you?

A No.

Q And you've taken an accident reconstruction EDR course for how to use an EDR and that was a two-day course?

A Yes.

Q And then you took a two-week course on accident reconstruction?

A Correct.

Q And then it looks like a one-week course on accident investigations; isn't that right?

A Yes.

Cross of Det. Salazar

Took a one-week course on accident investigations

Cross of Det. Salazar

Has no training on:

Crash Data Reports

Crash Recovery Data

Air Bag Control Modules

Q And to -- and you're aware of crash CDRs, crash recovery data, right?

A Yes.

Q Or crash data recovery, right? And you're aware that the air bag control modules contain the information and you know how to extract that data, right?

A Yes.

Q Okay. But you've never -- but you don't have any scientific training on the analysis of that data through physics or engineering, do you?

Cross of Det. Salazar

Didn’t attempt to get any infotainment GPS Location information

Didn’t know TABC had retrieved infotainment GPS Location information

Q And you do get warrants for the infotainment systems like you did here.
A Yes.
Q Okay. And would it surprise you to know that the infotainment system contained very important and relevant information about that evening?
A It wouldn't surprise me.
Q Okay. And would it surprise you to know that TABC's investigations obtained very relevant and important information about this case?
A It wouldn't surprise me.

Cross of Det. Salazar

Didn’t know GPS Data showed where Jones was at all times

Q Well, since you didn't get that information and look for it, would it surprise you to know that the data showed exactly where Mr. Jones was in the many hours preceding the accident?

A I wouldn't be surprised. If the triangulation was captured correctly, it would record where the vehicle was, how long it was there at the location stationary, when it left the location and the direction that it traveled.

Q And so would it surprise you to know it captured where he was, when he left that place and then when he had the accident, right?

A I wouldn't be surprised.

Q Okay. Now let's talk about the things that are missing from that report of yours. So the cell phone. You had the cell phones in your possession; isn't that right?

A Yes.

Q Yet there's no extractions of any information, is there?

A No.

Cross of Det. Salazar

Admitted that many things missing from report

Cross of Det. Salazar

Testified that she knew the direction both drivers turned before impact.

Testified that it was based on the Crash Data Report

Q Okay. Now there's two vehicles coming at each other, right? And so you've got a Ford and you've got a Nissan. Now -- well, you testified about the directions that they turned, right?

A Yes.

Q And in the seconds before, right, there is negative one second prior and then there's negative .5 seconds prior. What was the degree of turn one second prior of the Sentra? Wasn't it 30 degrees?

A It was negative 30.

Q Negative 30 degrees. And then at a half second it was negative 67.5 degrees; is that correct?

A Yes.

Cross of Det. Salazar

Testified that Complainant turned left, away from Jones

Q Okay. You said it turned left. So at one second it's a -- and this is forward. This would be left and this is right.

A Yes.

Q It's your testimony that she went left that way?

A Yes.

Q Is that right?

A Yes.

Q Okay. And then at the next second what direction are you testifying it would be?

A Left.

Q And that's at the five seconds. Okay. Now why are you saying that she's turning left?

A Because the steering input shows negative number to the left.

Q So you believe negative number means to the left?

A Yes.

Q Are you sure about that?

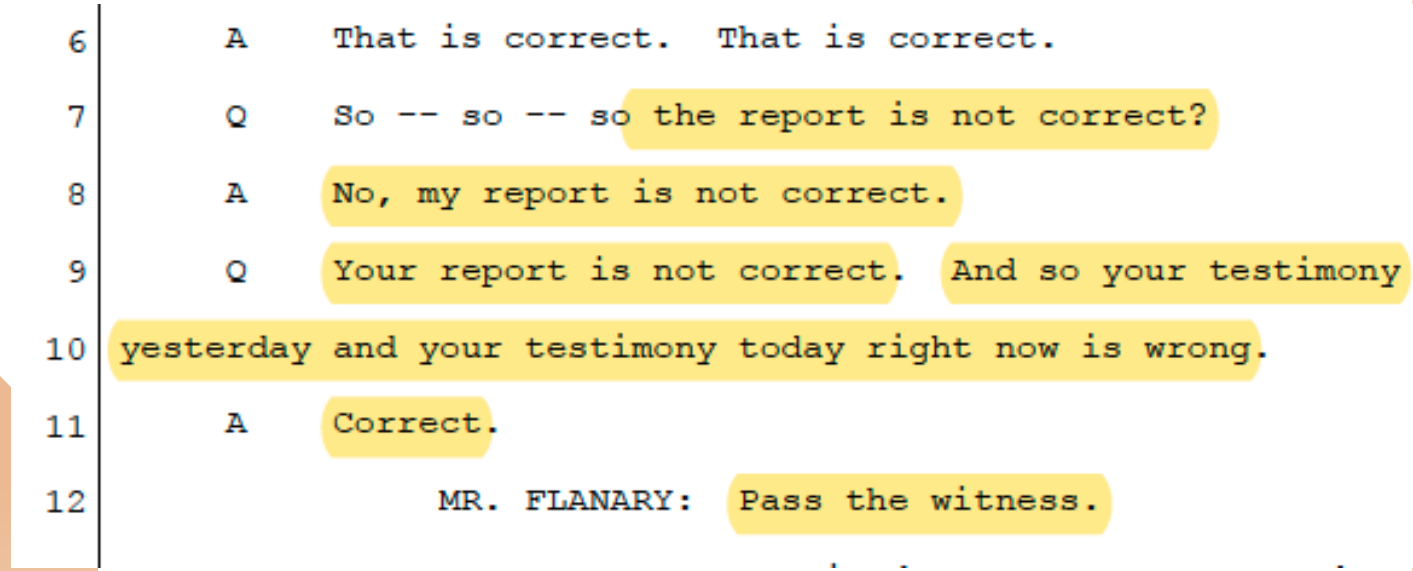
A Yes.

Cross of Det. Salazar

She admitted she was wrong

She admitted her report was wrong

She admitted the Complainant actually turned right into Jones



A That is correct. That is correct.

Q So -- so -- so the report is not correct?

A No, my report is not correct.

Q Your report is not correct. And so your testimony yesterday and your testimony today right now is wrong.

A Correct.

MR. FLANARY: Pass the witness.

Q (BY MR. FLANARY) Now do you consult signage -- tell us how signage can play a role in your expert determinations and analysis.

A Signage can tell the drivers what's ahead and to make a decision good at a certain direction or not.

Q All right. And is there a certain portion of this

Signage Determinations

One-way Signage

Q And so there should be a one-way sign here, here and then no left turn here; is that correct?

A Correct.

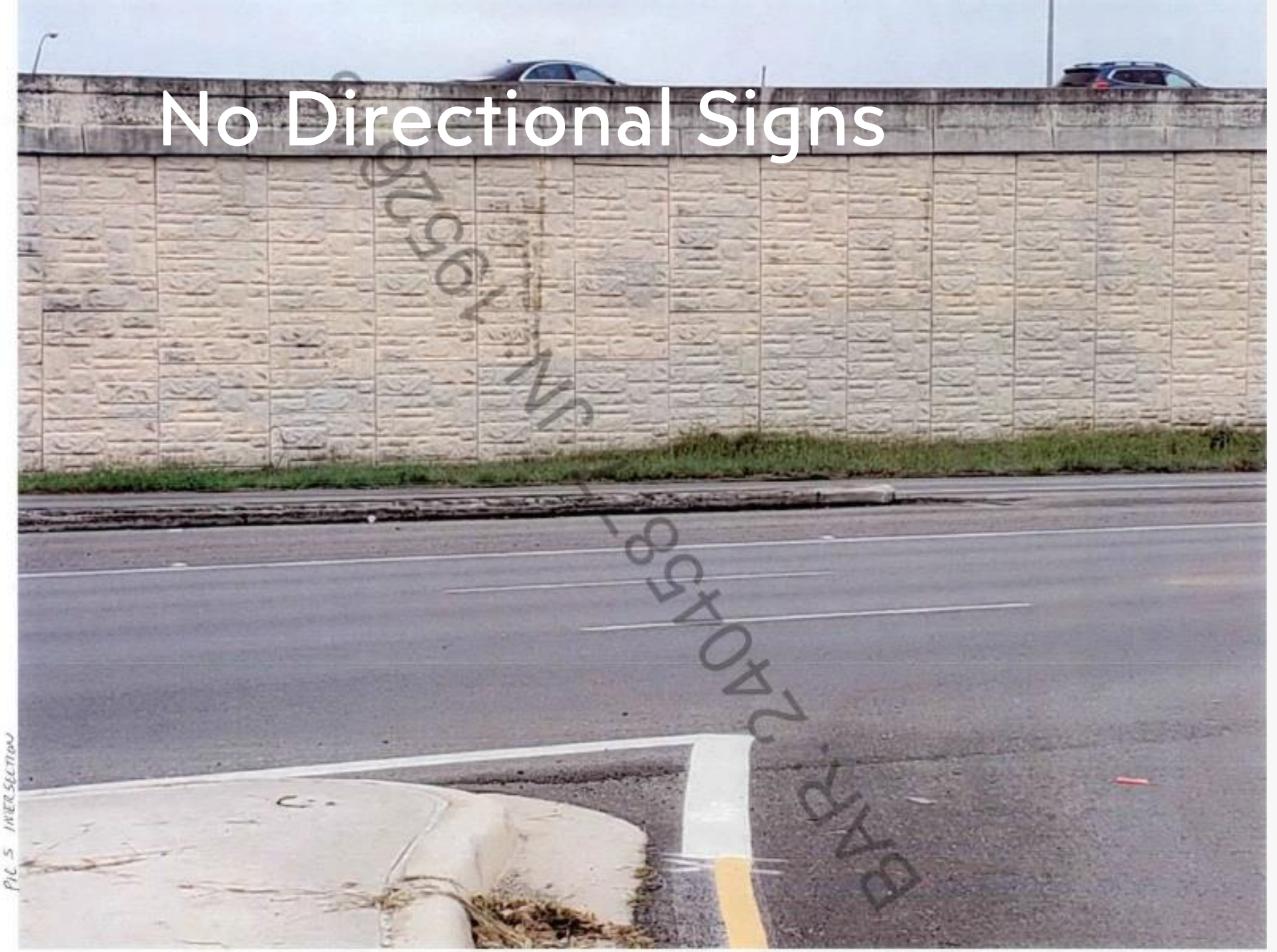
Q Okay. Now after reviewing the site, did you see if there were any inconsistencies with the -- with the traffic control manual?

A I did not see the signs that he talked about.

Q Where -- where are the signs supposed to be placed?

A Sign supposed to be here one way, here one way, going this direction, and here, do not turn left.

No Directional Signs



No Directional Signs

Improper Signage Leads to Wrong-Way Driving

THE COURT: Okay. Sustained.

Q (BY MR. FLANARY) Can you tell us of a -- of problematic examples based on your experience?

A If there is not proper signage, the drivers may make a mistake, especially on the two-way frontage road, to take the exit ramp thinking that's the way to go.

MR. BROWN: Objection, relevance. It's not a two-way frontage road.

THE COURT: It's overruled. You can state your opinion, sir.

Amy L. Hinds, CSR, RMR, CRR, TCRR
amy.hinds@bexar.org

THE WITNESS: Thank you.

A There are instances when there are not proper signage, a driver may make a mistake by going the wrong direction on the ramp.

Q (BY MR. FLANARY) Okay. And what are -- in your

Black Box Data

MR. FLANARY: ...e Nissan that's already been admitted.

THE COURT: Okay. All right. Thank you.

Q (BY MR. FLANARY) And, Doctor, can you tell us a little bit about this exhibit?

A Yes. That's the black box data from the Nissan which gives specific information on certain things. That's actually two pages or three pages of the data merged together. And I

BOSCH

CDR CRASH DATA RETRIEVAL

IMPORTANT NOTICE: Robert Bosch LLC and the manufacturers whose vehicles are accessible using the CDR System urge end users to use the latest production release of the Crash Data Retrieval system software when viewing, printing or exporting any retrieved data from within the CDR program. Using the latest version of the CDR software is the best way to ensure that retrieved data has been translated using the most current information provided by the manufacturers of the vehicles supported by this product.

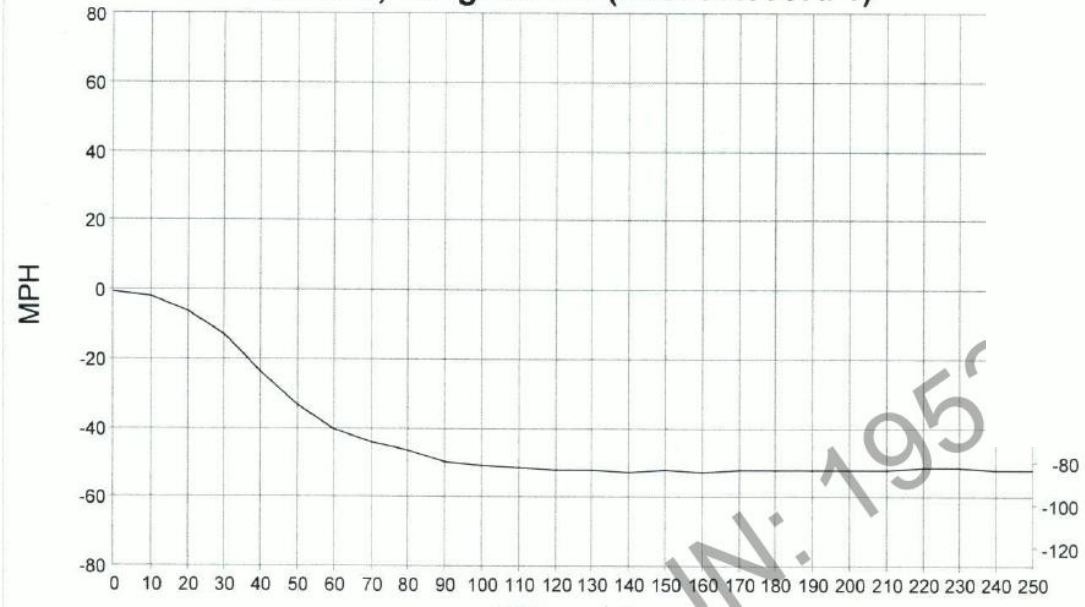
CDR File Information

User Entered VIN	3N1AB7AP5DL698068
User	Det. J. Sanchez # 2119
Case Number	SAPD20021988
EDR Data Imaging Date	02/29/2020
Crash Date	01/31/2020
Filename	3N1AB7AP5DL698068_ACM.CDRX
Saved on	Saturday, February 29 2020 at 02:19:55
Imaged with CDR version	Crash Data Retrieval Tool 18.0
Imaged with Software Licensed to (Company Name)	San Antonio Police Department
Reported with CDR version	Crash Data Retrieval Tool 18.0
Reported with Software Licensed to (Company Name)	San Antonio Police Department
EDR Device Type	Airbag Control Module
Event(s) recovered	Event Record 1

Comments

1. Manufacturing sticker tire size recommendations - (F&R) 205 55R16
2. Sizes of actual tires on the vehicle - (F&R) 205 55R16
3. Method of powering up the module of car - Direct to Module
4. Number of times powered up during setup or moving the car pre-download - 0
5. Any recall or engine computer reprogramming stickers observed - No
6. The names of those present during the download - J. Sanchez # 2119, M. Salazar # 2260

Delta V, Longitudinal (Event Record 1)



Crash Data

Pre-Crash Data -5 to 0 sec [2 samples/sec] (Event Record 1)

(the most recent sampled values are recorded prior to the event)

Time Stamp (sec)	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % full	Engine RPM	Motor RPM	Service Brake (On, Off)	Steering Input (deg)
-5.0	68 [110]	26	2000	2000	Off (Brake Not Activated)	2.5
-4.5	68 [110]	28	2100	2100	Off (Brake Not Activated)	2.5
-4.0	68 [110]	29	2100	2100	Off (Brake Not Activated)	2.5
-3.5	68 [110]	30	2100	2100	Off (Brake Not Activated)	5
-3.0	69 [111]	28	2100	2100	Off (Brake Not Activated)	2.5
-2.5	69 [111]	18	2000	2000	Off (Brake Not Activated)	5
-2.0	69 [111]	0	2000	2000	Off (Brake Not Activated)	2.5
-1.5	68 [110]	0	2000	2000	Off (Brake Not Activated)	5
-1.0	59 [95]	0	1600	1600	On (Brake Activated)	-30
-0.5	50 [80]	0	1400	1400	On (Brake Activated)	-67.5
0.0	50 [81]	0	1400	1400	Off (Brake Not Activated)	-17.5

Steering Direction Data

Q Negative. Okay.
A So we can tell which direction the person is steering or attempting to steer.
Q And knowing those inputs of steering, you were able to put that -- do analysis and create diagrams; is that right?
A Correct.
Q And create simulations?
A Correct.
Q Okay. And then what's the next parameter that you might have?
A Then also you talked about how much Delta V was there. I already describe what Delta V is, changing velocity. But really when it comes to crash reconstruction, that means more because from change of velocity we can calculate how much force was there. Bigger Delta V in a short time means bigger force is applying on the occupants. For example, in the Nissan there's a 49 g-force acting on the occupant. On the Ford is about 34, 35 g-force.

Simulations

CONTINUED EXAMINATION

BY MR. FLANARY:

Q All right. I'm going to -- does this -- this shows the simulation of the accident in real time; is that correct?

A Yes. Maybe it's better if you start with the graphics.

Simulations


U2 (McCowan) Sentra
Time = 5.00 s
Velocity = 50 mph
U1 (Jones) Ford
Time = 5.00 s
Velocity = 27 mph


10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250
70 60 50 40 30 20 10


10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250
70 60 50 40 30 20 10

Perception Response Time

A Yes.
Q Have you testified about perception-response time?
A Yes.
Q What is perception-response time?
A When a person receives a cue like in the case of an accident, receives -- perceives a hazard, has to acknowledge what that hazard is, then has to make a decision what to do with the hazard it's -- that's coming into view. It could be a very simple reaction time of just slamming on the brake or it could be complex as to steering right, steering left,

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amy.hinds@bexar.org

accelerating or braking or a combination of all.
So we have a perception-response time to be simple. Usually is about one-and-a-half seconds, usually, or a complex, it can be up to five seconds, six seconds. So that's what we call PRT.
Q What can you tell us about -- well, what is the

NISSAN	Time	Speed	% Pedal	Steering input	Dir	Brake	g	Distance
	-5	68	26	2.5	CCW	OFF	0	474.3
Perception	-4.5	68	28	2.5	CCW	OFF	0.00	424.4
	-4	68	29	2.5	CCW	OFF	0.00	374.6
	-3.5	68	30	5	CCW	OFF	0.00	324.7
Reaction	-3	69	28	2.5	CCW	OFF	0.09	274.5
Reaction	-2.5	69	18	5	CCW	OFF	0.00	223.9
	-2	69	0	2.5	CCW	OFF	0.00	173.4
	-1.5	68	0	5	CCW	OFF	-0.09	123.1
BrakE/Steer	-1	59	0	-30	CW	ON	-0.82	76.6
Brake /Steer	-0.5	50	0	-67.5	CW	ON	-0.82	36.7
IMPACT	0	50	0	-17.5	CW	OFF	0.00	0

A Yes.
Q At what -- was a seat belt worn?
A No.
Q And if the seat belt was worn, what would have -- the pretensioners have done?
A Would have held the occupant in position in front of the air bag.
Q And was he held in position appropriately?
A It was not held clearly because the seat belt was not worn, but the person can stay in front by holding on to steering wheel.
Q Okay. And can an air bag cause injuries?
A Yes.

Seatbelt Not Worn

Belted/Unbelted/Airbags

Summary of Opinions

Jones was **unbelted and traveling wr**ong way as he entered the 1604 ramp

There were **no street signs to alert him of One Way Road** on the 1604 frontage road

Jones perceived and reacted properly prior to the Que by braking

Ms. McCowan was **unbelted**

Her **perception and reaction** was at least one second **slower than Jones**

More probably than not, **her fatal injuries** would have been **mitigated** had she been **wearing her seatbelts**

Verdict - Mark

Intoxication Manslaughter

NOT GUILTY

Verdict - Don

Manslaughter

GUILTY

Conclusion