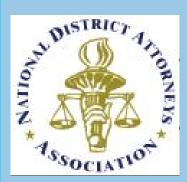
Volume 20, Number 3 May / June 2012



## Mark You Calendar

National Association of Prosecutor Coordinators Summer Conference July 9—12, 2012 Deadwood, SD

NDAA Summer Conference July 22—25, 2012 Mystic, CT

18th Annual DRE Section Training Conference on Drugs, Alcohol and Impaired Driving August 16—18, 2012 Seattle, WA

# Upcoming NDAA Courses For a listing of all upcoming NDAA courses, please go to: www.ndaa.org

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## NATIONAL TRAFFIC LAW CENTER



## Garmin<sup>1</sup> GPS Units and Crash Investigation

By Spl.Sgt John M. Bruno\*

This article provides a brief description of the potential investigative use of Garmin GPS Units that have been in use in vehicles that were involved in a crash.

This information pertains to nearly all Garmin GPS units, whether hand held, temporarily mounted or permanently mounted. The author is personally familiar with the Garmin GPSMAP 76S, the Garmin Montana hand held unit, and the Garmin NUVI 750 mobile unit; also the Garmin GPSMAP 3210 and GPSMAP 4010 fix mounted marine units. When activated, these units and most other Garmin units (known exception is the NUVI 750 mobile unit; also the Garmin GPSMAP 3210 and GPSMAP 4010 fix mounted marine units. When activated, these units and most

other Garmin units (known exception is the NUVI 200) will record an active log and keep a bread crumb trail of the unit's path of travel. The unit only has to be activated and does not have to be routing from one point to another. Once the unit is turned off it will store the active log. When the unit is activated again it will begin another active log and begin recording again. Specific examples of the information contained in these active logs will be detailed later in the article.

A Garmin GPS unit that may have been activated in a vehicle when a crash occurred may contain information that can be imaged for potential use in court. To

(Continued on Page 2)

## Norma Broussard Receives 2011 National Traffic Safety Prosecutor Award

The National Association of Prosecutor Coordinators (NAPC) has selected Norma Brousard, Assistant District Attorney for the 24th Judicial District (Jefferson Parish) in Gretna, Louisiana, as recipient of its 2011 National Traffic Safety Prosecutor Award. The award, given annually in conjunction with the National Highway Traffic Safety Administration (NHTSA), is presented to a prosecutor whose record demonstrates extraordinary efforts to save lives on the nation's highways through innovative legal approaches, work on high profile or complicated legal cases, dedication training, legislative efforts and dedication to victim advocacy.

Ms. Broussard works in the District Attorney's Office in Gretna, Louisiana and serves as Chief of Parish Courts. The parish court unit screens and prosecutes over 200,000 violations annually. Ms. Broussard developed the 24th Judicial District Comprehensive Manual for DWI Prosecution which serves as a reference manual for prosecutors.

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\*Spl/Sgt John M. Bruno is with the Traffic Crash Reconstruction Unit of the Michigan State Police

<sup>1</sup>Garmin refers to Garmin, Ltd. and its subsidiaries. GPSMAP®, NUVI® (nuvi®), MapSource®, and CityNavigator® are registered trademarks of Garmin, Ltd

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image the information you will need a computer that has Garmin's Base Camp freeware software and preferably some type of mapping program (such as City Navigator) besides the base map. You can also use Garmin's Map-Source software that is provided with any of their mapping software products. Most mobile or handheld units use a USB or mini-USB cable to connect to a computer. Some older units use serial cable. Fix mounted units use a SD card to transfer information to a computer. Once the unit is connected to the computer, the software will recognize the unit. The user then selects in the software "receive from device" then selects tracks to download. The Active Logs will then load into the software. All Active Logs will then appear as gray lines on the map. A highlighted or selected Active Log will contain direction arrows indicating that it is the selected log.

The Active Log information contains: the number of points contained in the log, start time and date, elapsed time, length, area and average speed for the log. By default the color of the log is grey and can be changed for display purposes. Generally for our purposes, the crash will have occurred during the last Active Log. Double clicking the Active Log you are interested in will open another

window. That window will reveal specific information about the Track Properties.

The Track Properties information contains: date and time, elevation, leg length, leg time, leg speed, leg course, and lat/long position. The opened Active Log will also highlight on the map. You can then select individual segments of the bread crumb trail. The segment will also highlight on the map and you will be able to see that during that segment the vehicle traveled, for example, 0.2 miles in 14 seconds and had an average speed of 58 MPH. The GPS units have a possible resolution of 1 second.

The following example is from an actual crash that occurred. The location and date and time have been changed. This incident resulted in a fatal traffic crash and the Garmin GPS unit was imaged and contained the following information to outline the suspect's activities leading up to the crash. It was determined through follow-up investigation that the suspect was in fact the driver of the vehicle during the entire time line of events. The following time line was created based on the Active Log imaged from the Garmin GPS unit in the suspect's vehicle.

## Time Line of Garmin Unit

Index	Time	Leg Time	Position	Location
980	2/7/09 2:24pm - 2/8/09 9:07am	18:42:06	N33 14.514 N77 20.888	Motel - A
1204	2/8/09 9:35am - 11:00am	1:25:00	N33 21.426 N77 03.935	Parking Garage
1434	2/8/09 11:40am - 12:02pm	0:21:39	N33 22.362 N77 21.783	Work Location - A
1824	2/8/09 12:47pm - 2:16pm	1:29:00	N33 14.514 N77 20.874	Motel - A
1987	2/8/09 2:34pm - 3:00pm	0:26:14	N33 22.360 N77 21.783	Work Location - B
2206	2/8/09 3:29pm - 3:53pm	0:23:55	N33 16.840 N77 12.488	Shopping Mall - A
2229	2/8/09 4:05pm - 4:32pm	0:26:59	N33 17.090 N77 12.350	Shopping Mall - B
2388	2/8/09 4:49pm - 6:47pm	1:57:59	N33 11.952 N77 15.318	Shopping Mall - C
2470	2/8/09 6:52pm - 7:19pm	0:27:04	N33 11.951 N77 14.578	Restaurant - A
2638	2/8/09 7:39pm - 9:50pm	2:11:22	N33 14.515 N77 20.941	Motel - A
2741	2/8/09 10:03pm - 2/9/09 12:52am	2:49:01	N33 17.680 N77 23.285	Bar and Grill - A
3019	2/9/2009 1:17:57am		N33 14.268 N77 26.334	Crash Site

Index	Time	Leg Time	Speed
3006	2/9/2009 1:16	0:00:07	71 mph
3007	2/9/2009 1:16	0:00:07	77 mph
3008	2/9/2009 1:16	0:00:07	80 mph
3009	2/9/2009 1:16	0:00:13	81 mph
3010	2/9/2009 1:17	0:00:08	84 mph
3011	2/9/2009 1:17	0:00:08	83 mph
3012	2/9/2009 1:17	0:00:06	82 mph
3013	2/9/2009 1:17	0:00:07	73 mph
3014	2/9/2009 1:17	0:00:08	68 mph
3015	2/9/2009 1:17	0:00:01	7 mph
3016	2/9/2009 1:17	0:00:01	0.5 mph
3017	2/9/2009 1:17	0:00:01	0 mph
3018	2/9/2009 1:17	0:00:10	0 mph
3019	2/9/2009 1:17		

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This crash occurred on a freeway where the suspect was traveling eastbound in the westbound lane of the freeway which resulted in a head-on crash. The crash killed the westbound vehicle driver. The suspect was not killed and was later charged criminally. A search warrant was obtained to image the data from the Garmin GPS Unit in the vehicle. At the time it was unknown if the unit was active when the crash occurred as it was found in the power off state. Most units if plugged into a cigarette lighter of a vehicle will turn off 30 seconds after the vehicle is turned off and will then turn back on when the vehicle is started again.

Looking at the active log we can see that the crash occurred at 1:17am on 2/9/09 and that the suspect vehicle was traveling as much as 84 MPH just prior to the crash.

Looking back at the suspect's movements throughout the day we can see that the suspect was at a bar and grill for approximately 2 hours and 49 minutes prior to the crash and there were 25 minutes between the time the suspect left the bar and when the crash occurred.

You also have the availability to plot a large scale map for presentation in court showing the bread crumb trail of the suspect's path of travel for the day.

As you can see this information provides valuable information not only about the crash itself, but information about the suspect's activities and locations prior to the crash.

I am not familiar with GPS units other than Garmin to know if they have the capability to save and image track information. Further research and tests would need to be done with units other than Garmin.

Spl/Sgt. John M. Bruno Michigan State Police Traffic Crash Reconstruction Unit 1504 W. Washington Street Marquette, MI 49855

## **NDAA Efforts**

NDAA's mission is "to be the voice of America's prosecutors and to support their efforts to protect the rights and safety of the people."

For more information on NDAA, its programs and efforts, go to www.ndaa.org

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Ms. Broussard conducts periodic and long-term training locally, regionally and statewide in order to ensure that new prosecutors are competent to handle the complexities of DWI prosecutions. She also participates as a trainer with the Louisiana Highway Safety Commission traffic safety workshops, which provide law enforcement officers with legal updates and information to enhance their ability to identify, investigate and prosecute DWI cases. Ms. Broussard was reappointed this year by Governor Jindal to the State DWI Task Force as the designee for all Louisiana District Attorneys.

Among other accomplishments, Ms. Broussard serves as Chairperson of the Jefferson Parish Alliance of Concerned Citizens, co-chairs the Impaired Driving Emphasis Area Team for the Louisiana Strategic Highway Safety Plan, is a member of the Who Dat Safe Community Coalition and a member of Project L.E.A.D., a law-related education program targeting elementary and middle school students which teaches social skills to deal with current issues and peer pressure.

## **Stephen Talpins Honored**

Stephen Talpins, former Program Director of the National Traffic Law Center, was honored at the 30th Anniversary Lifesavers Conference held June 14–16, 2012 in Orlando, Florida. Talpins, of Davie, Florida and currently Chief Executive Officer of the National Partnership on Alcohol Misuse and Crime and a private attorney, received a Public Service Award at the annual NHTSA Awards Luncheon. The award was presented by NHTSA Administrator David L. Strickland.

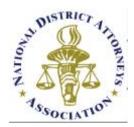
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