THINKING OUTSIDE THE BLACK BOX: How creative thinking turned an electronic safety tool into a criminal informant.

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Introduction

Once upon a time, an inventor had an idea. He would create an electronic device that could tell investigators why planes crashed.[1] The invention was successful, and soon made its way to other forms of transportation, eventually residing beneath the passenger seat of most personal automobiles. That set the little black box on a collision course with the search and seizure provisions of the Fourth Amendment to the United States Constitution. Now, Big Brother[2] is not just watching—he is riding beneath your automobile's front passenger seat, and he is snitching on you without your knowledge or permission.

The data recording device, commonly known as a black box, has been widely used by the airline industry for decades, with use by the railroad and trucking industries following soon after. However, only within the last few years has the issue of law enforcement and the judicial system employing data from passenger vehicle Event Data Recorders, or EDRs, emerged to produce papers and discussions filled with more abbreviations than the New Deal.

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[1] See Sec. IA of this paper.

[2] Orwell 1984, symbolizes the Party in its public manifestation; he is a reassurance to most people (the warmth of his name suggests his ability to protect), but he is also an open threat (one cannot escape his gaze). Big Brother also symbolizes the vagueness with which the higher ranks of the Party present themselves—it is impossible to know who really rules Oceania, what life is like for the rulers, or why they act as they do. Sparknotes, *Analysis of Major Characters,* http://www.sparknotes.com/lit/1984/canalysis.html (last visited June 11, 2007).

This article examines the use of event data recorders, or EDRs, also known as snitch boxes, now installed in passenger automobiles by all major manufacturers, and proposes that all law enforcement agencies be required to obtain warrants to retrieve the information stored on those EDRs. Section I explains the science behind EDRs, examining their origin and evolution from airplanes to minivans. Section II explores the current law surrounding EDRs. Section III discusses warrant requirements under the search and seizure clause of the Fourth Amendment, including common law exceptions. Section IV applies the Fourth Amendment to EDRs, and explains why no exception applies to EDRs.

I. Planes, Trains and Automobiles

A. History of the Event Data Recorder

The first event data recorder was invented by David Warren, born in 1925 on Groote Eylandt in the Gulf of Carpentaria, North Australia.[3] When Warren was nine years old, his father was killed in an early air disaster, the crash of the Miss Hobart in Bass Strait.[4] He developed an early interest in electronics, and wanted to be Australia's youngest ham radio operator, but World War II forced a ban on amateur radio, and he turned to chemistry instead.[5] From 1944 to 1948, Dr. Warren taught mathematics and chemistry in Victoria and Sydney, and in 1948 began work as a scientific officer at Woomera Rocket Range and Imperial College in London.[6] In 1952, Dr. Warren was

[3] Australian Government Department of Defence, *David Warren – Biography*, Defence Science & Technology Organisation ("DSTO"), http://www.dsto.defence.gov.au/page/3384/ (last visited June 4, 2007).
[4] *Id.*
[5] *Id.*
[6] *Id.*

named Principal Research Scientist for the Aeronautical Research Laboratories in Melbourne, now a part of the Defence Science and Technology Organisation, or DSTO.[7]

Fate was closing in on Dr. Warren. Following World War II, the British capitalized on the rapid expansion of jet fighter production and manufactured the "Comet," the first jet-powered airliner.[8] The Comet promised to revolutionize air travel until several of them crashed in 1953 with no discernable cause, and the public grew skeptical about the Comet in particular and air travel in general.[9] Warren participated in the accident investigations, but neither he nor other investigators could determine the cause of the crashes.[10] Warren believed that a cockpit voice recorder to record the flight crew's conversations could help solve the mystery of these unexplainable accidents, but conversations with colleagues about his idea generated little interest.[11] He then prepared a report titled "A Device for Assisting Investigation into Aircraft Accidents,"[12] but the report generated no more interest than had his oral exchanges.[13] Warren decided seeing was believing, and designed and built an experimental voice recorder that could continually store up to four hours of speech as well as flight instrument readings.[14] Produced by 1958, the device was roughly the size of an adult hand, and called "ARL

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[7] *Id.*
[8] Australian Government Department of Defense, *The Black Box: An Australian Contribution to Air Safety*, DSTO, at 1, http://www.dsto.defence.gov.au/attachments/The%20Black%20Box.pdf (last visited June 10, 2007).
[9] Macarthur Job, *David Warren*, November 3, 1999, http://www.time.com/time/magazine/article/0,9171,33686,00.html.
[10] *Id.*
[11] Department of Defence, *supra* note 7.
[12] *Id.*
[13] *Id.*
[14] *Id.*; Australian Department of Defence, *David Warren – Inventor of the Black Box Flight Recorder*, DSTO, http://www.dsto.defence.gov.au/page/3383/ (last visited June 10, 2007).

Flight Memory Unit."[15] Aviation authorities rejected the device as having "little immediate direct use in civil aircraft,"[16] and pilots termed it "a spy flying alongside."[17]

Frustrated with the lack of Australian interest, Warren took his idea and prototype to England, where authorities wanted to mandate installation in all British civil aircraft.[18] Then, in 1960, an airliner mysteriously crashed in Mackay, Queensland.[19] The judge inquiring into the crash learned of the development of the crash recorder, and ordered that all Australian airliners carry pilot speech recorders beginning January 1963.[20] In 1964, the Federal Aviation Administration mandated use of flight data recorders *in commercial aircraft*.[21] By 1967, although UK and other countries required only flight instrument data recorders, Australia made compulsory both flight data and cockpit voice recorders.[22] In 1978, the FAA mandated a flight cockpit voice recorder (CVR) in all multi-engine aircraft that seat six or more passengers and require two or more pilots.[23] That CVR must record fifteen to thirty minutes of audible cockpit sounds, depending on the size of the plane.[24] These planes also carry a separate flight recorder to record time, altitude, air speed, acceleration, radio transmissions and other data.[25]

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[15] BBC News, *Black Box: Key to Disaster Investigations*, July 26, 2000, http://news.bbc.co.uk/1/hi/sci/tech/503000.stm.
[16] *Id.*
[17] Department of Defence, *supra* note 7, at 2.
[18] *Id.* Britain gave Warren a team to update and improve the original model. David Uris, *Big Brother and a Little Black Box: The Effect of Scientific Evidence on Privacy Rights*, 42 SANTA CLARA L. REV. 995, 999-1000 (2002).
[19] Department of Defence, *supra* note 7, at 3.
[20] *Id.*
[21] Uris, *supra* note 17, at 1000 (citing FAA Flight Data Recorder Rule, 14 C.F.R. 129.20 (1964) ("No person may operate an aircraft under this part that is registered in the United States unless it is equipped with one or more approved flight records that use a digital method of recording and storing data and a method of readily retrieving that data from the storage medium.")).
[22] *Id.* at 999.
[23] Clinton Oster and C. Zonr, *Deregulation and Commuter Airline Safety*, 49 J. AIR L. & COM. 315, 332 (1984); Donald C. Massey, *Proposed On-board Recorders for Motor Carriers: Fostering Safer Highways or Unfairly Tilting the Litigation Playing Field?*, 24 S. ILL. U. L.J. 453, 460 (2000).
[24] 14 C.F.R. § 135.151 (1996).
[25] *Id.* § 135.152.

Pilots did not willingly agree that CVRs were an asset, and the Air Line Pilots Association (ALPA) was a strong opponent when CVRs were first introduced.[26] ALPA knew the recorders could assist in accident investigation, but worried about privacy issues for its pilots.[27] ALPA and The National Transportation Safety Board (NTSB) reached a compromise and agreed upon a specific duration for recorded information, that the flight crew could erase the recording once on the ground, and that the information would be subject to disclosure only for its intended purpose of accident investigation.[28]

Congress agreed with ALPA and the NTSB, and imposed what it believed were reasonable restrictions on the use of CVR materials. It exempted CVR data from Freedom of Information Act requests.[29] In the Transportation Safety Act, Congress limited public disclosure of CVR data involving aircraft crash investigations.[30] However, the Act allows the NTSB to publicize any part of a transcript it believes is relevant to the accident or incident as long as the Board holds a public hearing or if it places the decision on the public docket at the same time as a majority of the other factual reports on the accident or incident are discussed.[31] The Board is allowed to refer to CVR recordings when it makes safety recommendations.[32] A court may allow discovery of a CVR recording or transcript without prior public release of the information.[33] If the CVR transcript is publicly released, the transcript becomes discoverable.[34]

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[26] Lindsay Fenwick, *Access to Data; Privacy, Propriety and Union Issues International Symposium on Transportation Recorders*, May 1999, http://www.ntsb.gov/events/symp_rec/proceedings/authors/fenwick.htm.
[27] *Id.*
[28] *Id.*
[29] 5 U.S.C. § 552 (1994).
[30] 49 U.S.C. § 1154(a)(1)(A) (1994).
[31] *Id.* at § 1114(c)(1)(A)-(B).
[32] *Id.* at § 1114(c)(2).
[33] 49 U.S.C. § 1154(a)(3).
[34] *Id.* at § 1154(a)(1)(A) (1994).

After data recorders gained limited popularity, the FAA was not the only U.S. governmental agency interested in the data recorders. Beginning in 1993, The Federal Railroad Administration (FRA) required event data recorders in locomotives.[35] However, initial LERs proved uncrashworthy,[36] and the NTSB began working with industry leaders in 1995[37] to improve the recorders and reinstall them in all locomotives.[38] On June 30, 2004, the Federal Register published a notice of proposed rulemaking (NPRM) for "Locomotive Event Recorders." [39] To improve the crashworthiness of railroad locomotive event recorders, the FRA proposed to amend its existing regulation by requiring that new locomotives have event recorders with "hardened" memory modules to enhance the quality of information available for post accident investigations.[40] In August 2004, the Board provided written comments to the FRA regarding the NPRM.[41]

Locomotive Event Recorders (LERs) record less information than FDRs.[42] Lead locomotives must carry locomotive event recorders that monitor speed, direction, time, distance, throttle, brakes and signals over the latest forty-eight hours.[43] While most locomotives currently carry magnetic tape event recorders, by 2009, all locomotives must

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[35] Safety Lex, *Railroad Safety Under Scrutiny*, http://safetylex.typepad.com/my_weblog/2005/03/railroad_safety.html (last visited June 10, 2007).
[36] *Id.* For example, two Union Pacific freight trains collided in Devine, Texas, in 1997, and several event recorders were destroyed through impact forces and fire. National Transportation Safety Board ("NTSB"), *Most Wanted Transportation Safety Improvements*, http://www.ntsb.gov/recs/mostwanted/rail_voice_recorders.htm (last visited June 10, 2007).
[37] Safety Lex, supra note 34. The NTSB formed the Rail Safety Advisory Committee (RSAC) Locomotive Event Recorder Crashworthiness Working Group. NTSB, *supra* note 35.
[38] Safety Lex, *supra* note 34.
[39] NTSB, *supra* note 35.
[40] *Id.*
[41] *Id.*
[42] Kevin J. Powers, Note, *David Hasselhoff No Longer Owns the Only Talking Car: Automotive Black Boxes in Criminal Law*, 39 SUFFOLK U. L. REV. 289, 295 (2005) (citing Joe T. Correia et al., *Utilizing Data from Automotive Event Data Recorders*, 1-2 (2001), http://www-nrd.nhtsa.dot.gov/edr-site/uploads/Utillizing_Data_from_Automotive_Event_Data_Recorders.pdf).
[43] 49 C.F.R. § 229.5 (2004) (listing LER definitions); Correia, *supra* note 41, at 2 (citing 49 C.F.R. § 229.5 (2004)).

carry boxes featuring electronic memory modules.[44] In addition, under recent rule changes, train companies must retain the LER data for one year rather than the current ninety days to give investigators more time to review the data during their investigation.[45] Train crews do not enjoy the same privacy protections provided the airline flight crews, and LER data is generally admissible.[46]

Recorders for use in the maritime industry were recommended as early as 1976, but the recommendations did not intensify until the 1990s.[47] In 2000, the International Convention for Safety of Life at Sea adopted regulations effective July 1, 2002, requiring Voyage Data Recorders (VDRs) on passenger ships and ships other than passenger ships of 3000 gross tonnage and upwards constructed on or after 1 July 2002.[48] Performance standards for VDRs were adopted in 1997 and give details on VDR specifications and the data they record. The VDR should continuously maintain sequential records of pre-selected data items relating to status and output of the ship's equipment and command and control of the ship. The VDR must be installed in a protective capsule that is brightly colored and fitted with an appropriate device to aid location. It should be entirely automatic in normal operation.[49]

The trucking industry has employed On-Board recorders (OBRs) since the 1980s.[50] The first device was a tachograph,[51] followed in the early 1980s by solid-state

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[44] ProgressiveRailroad.com, *Locomotive 'Black Box' Rule Will Improve Safety, FRA Says*, June 30, 2005, http://www.progressiverailroading.com/freightnews/article.asp?id=7111.
[45] *Id.*
[46] Powers, *supra* note 41.
[47] *Id.* at 296; Correia, *supra* note 41, at 2.
[48] International Maritime Organization, *Voyage Date Recorders*, http://www.imo.org/Safety/mainframe.asp?topic_id=768 (last visited June 10, 2007).
[49] *Id.*
[50] Correia, *supra* note 41, at 2 (charting 1988 OBR regulation).

based equipment.[52] When the industry went to electronic engines, and employed mobile radio, satellite and cellular telephone based equipment, electronics originally invented merely to help route and track the trucks morphed into full-featured trip recorders with monitoring capabilities.[53] Some devices operate as on-board "coaches" to provide immediate feedback to drivers.[54] In the process, they record drivers' violations of Department of Transportation regulations.[55]

The trucking industry attempts to sell drivers on the advisability of these OBRs by using them to reward good driving.[56] Dole indicates that driver performance suffers when the drivers view the black boxes as "Big Brother," but become better drivers if they believe the company will use the recorded information to reward them for good performance.[57]

At least one company is attempting to produce the same results with drivers of passenger automobiles. Road Safety International of Thousand Oaks, California, has designed a consumer EDR model specifically for parents to install in cars their teenagers drive.[58] The box grumbles and grates when a driver is speeding, and if the driver does not slow down, notes in a computer file the speeding incident and other dangerous driving

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[51] Paul Menig & Cary Coverdill, *Transportation Recorders on Commercial Vehicles International Symposium on Transportation Recorders*, May 1999, http://www.ntsb.gov/events/symp_rec/proceedings/authors/menig.htm.
[52] *Id.*
[53] *Id.*
[54] Les Dole, *On-board Recorders: The "Black Boxes" of the Trucking Industry*, May 1999, http://www.ntsb.gov/events/symp_rec/proceedings/authors/dole.htm.
[55] *Id.*
[56] *Id.*
[57] *Id.*
[58] Don Oldenburg, *The Snoop in Your Coupe*, Washington Post, September 9, 2003, A01, available at http://newsmine.org/archive/security/bigbrother/black-box-in-car-reports-you.txt.

behaviors.[59] At least one teenager believes driving under the black box's scrutiny has made him a better driver.[60]

The first passenger automotive use of EDRs appeared over thirty years ago,[61] largely driven by the automotive industry's investment in electronically controlled fuel injection engines.[62] The devices are generally referred to as Event Data Recorders (EDRs), but may be called "Diagnostic and Energy Reserve Modules" or "DERMs" (manufactured by General Motors from 1990-1993), "Sensing and Diagnostic Modules" or "SDMs" (manufactured by General Motors from 1994-1999), or "Crash Data Recorders" or "CDRs."[63] By 2003, approximately twenty-five million automobiles in the United States had event data recorders.[64]

In the early 1970s, the NTSB recommended that the National Highway Traffic Safety Administration (NHTSA) and the NTSB work together to use on-board collision sensing and recording devices to glean information about vehicle crashes.[65] Beginning in 1974, General Motors vehicles equipped with airbags recorded data for impacts that caused the airbag to deploy.[66] Many systems also recorded data during impacts that did

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[59] *Id.*
[60] *Id.*
[61] Andrew Harris, *Car's Black Box Evidence Ruled Admissible*, NEW YORK LAW JOURNAL, Jan. 13, 2005, http://www.law.com/jsp/article.jsp?id=1105364095740.
[62] Don Gilman, *Automotive Black Box Data Recovery Systems*, National Highway Traffic Safety Administration ("NHTSA"), http://www-nrd.nhtsa.dot.gov/edr-site/uploads/Auto_Black_Box_Data_Recovery_Systems_by_TARO.pdf (last visited June 10, 2007).
[63] Patrick R. Mueller, Comment, *Every Time You Break, Every Turn You Make -- I'll Be Watching You: Protecting Driver Privacy in Event Data Recorder Information*, 2006 WIS. L. REV. 135 n.2 (2006). *See* John M. Goebelbecker, *Crash Data Retrieval Kit Recovers Reconstruction Data from GM Black Boxes*, Triodyne Safety Brief, Aug. 2000, at 1, 1-2, available at http://www.triodyne.com/SAFETY~1/SB_V16N5.PDF.
[64] Oldenburg, *supra* note 57.
[65] Gilman, *supra* note 61.
[66] *Id.*

not deploy the airbag.[67] The EDR did not have the capability to record pre-crash data until 1999.[68]

The automotive industry claimed it needed the data to improve vehicle safety. If engineers could understand how driving behavior led to a crash, or how restraint systems such as airbags and seatbelts performed in actual crashes, then they could improve safety designs.[69] However, Meuller found that no manufacturers report gathering EDR data from crashes to improve safety.[70] Instead, manufacturers have made the data available to anyone who wishes to buy a data reader for the modest price of $2,500.00[71] and law enforcement personnel are retrieving and employing the data in criminal prosecutions against drivers who probably had no idea the device was even in the car.[72]

By making the collection kit available to police departments and other governmental agencies, the manufacturers have effectively provided inculpatory criminal evidence against the very consumers the manufacturers purport to protect.

B. How Event Data Recorders Work.

General Motors began recording data in events causing an airbag deployment in 1974 in response to the recommendation made by the NTSB in the early 1970s that automobile manufacturers work with the NTHSA to gather vehicle crash information.[73]

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[67] *Id.*
[68] *Id.*
[69] Mueller, *supra* note 62, at 139. *See* Press Release, Vetronix Corp., *Vetronix Corporation Launches the Crash Data Retrieval (CDR) System*, Mar. 9, 2000, http://www-nrd.nhtsa.dot.gov/edr-site/uploads/Vetronix_System--Info_web-address_faq_order-form-with-technical-data.pdf.
[70] Mueller, *supra* note 62, at 139.
[71] Vetronix, *supra* note 68. *See* Gen. Motors Corp. ("GM"), *Event Data Recorders: Frequently Asked Questions*, http://www.gm.com/company/gmability/safety/protect_occupants/event_data_recorders/index.html (GM will release the data upon an "official request" by law enforcement personnel without the vehicle owner's permission or knowledge) (last visited June 10, 2007).
[72] NBC5.com, *Black Box in Your Car: Safety Device or Snitch?*, http://www.prisonplanet.com/black_box_in_your_car.html (last visited June 10, 2007).
[73] Gilman, *supra* note 61.

As vehicles became more sophisticated and used more electronic systems, GM contracted with Vetronix, a California company, to manufacture a Crash Data Retrieval (CDR) system.[74] The CDR works through the airbag deployment sensors. After a crash, if the vehicle's electrical system is intact, then the data can be read by connecting to a device located underneath the dash and used by technicians to talk to the vehicle's on-board computer. If the electrical system is not intact, then data retrieval requires direct connection to the air bag module.[75] The SDM calculates velocity change and, based upon a predictive algorithm, decides whether to deploy the airbag and when to record the pre-crash data.[76]

The SDM will record pre-crash and crash data during what Vetronix terms a "near deployment event" or a "deployment event."[77] A "deployment event" is just what the name implies—the airbags deploy. A near deployment event is "an event severe enough to 'wake up' the sensing algorithm but not severe enough to deploy the airbag(s)."[78]

Later GM models contain other sensors which provide information on driver seat belt status, among other things.[79] The module's memory (EEPROM) stores the last five seconds of data immediately prior to enabling the algorithm in either a deployment or near-deployment event.[80] Once the deployment algorithm has enabled, the data stored in memory is permanently written to the EEPROM where it cannot be erased, cleared or altered.[81] The data is then available to anyone[82] with the proper software, interface

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[74] Vetronix, *supra* note 68.
[75] *Id.*
[76] Gilman, *supra* note 61.
[77] Vetronix, *supra* note 68.
[78] *Id.*
[79] *Id.*; Gilman, *supra* note 61.
[80] Gilman, *supra* note 61.
[81] *Id.*

hardware, and a PC.[83] The amount of data that can be stored is limited only by available memory.[84] Therefore, as on-board computers become more sophisticated, a greater amount of data will be available to those wishing to retrieve it.

Nor is the capability limited to GM vehicles. In November 2000, Ford signed an agreement with Vetronix to write software and build hardware capable of interfacing with 1998 and newer Fords.[85] Vetronix can interface with vehicles other than GM or Ford merely by updating the PC software, leading to probable partnerships with other automobile manufacturers.[86]

This explanation of the science behind the system is meant only as a layperson's simple guide. Those wishing a more sophisticated explanation of the science behind EDRs can access the numerous patents relating to these devices.[87]

C. Effects of the Event Data Recorder

Event data recorders often have done what David Warren hoped they would. Several high-profile airplane crashes have been solved by retrieving data from the EDRs. For example, the Swedish Accident Investigation Board proved pilot error in the crash of JAS 39 in Stockholm in August 1993.[88] Black boxes revealed multiple engine failure in the Concorde crash near Charles de Gaulle Airport in July 2000.[89] The black boxes

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[82] Vetronix anticipated usage of its CDR by accident reconstructionists, law enforcement, insurance adjusters, NHTSA / NTSB, automobile manufacturers, vehicle fleet managers, car rental agencies and others. Vetronix, *supra* note 68.
[83] Gilman, *supra* note 61. *See* Vetronix, *supra* note 68 (Vetronix offering the kit to anyone with $2,495).
[84] Gilman, *supra* note 61.
[85] Vetronix, *supra* note 68.
[86] *Id.*
[87] *See* NHTSA, *Event Data Recorder (EDR) Applications for Highway and Traffic Safety, United States Patents*, http://www-nrd.nhtsa.dot.gov/edr-site/patents.html (last visited June 10, 2007).
[88] Urban Fredriksson, *JAS 39 Gripen Crash in Stockholm 1993 August 08 Report Summary*, http://www.canit.se/~griffon/aviation/text/gripcras.htm (last visited June 10, 2007).
[89] Barry Came, *Concorde Crash*, Maclean's Magazine, August 7, 2000, available at http://www.canadianencyclopedia.ca/index.cfm?PgNm=TCE&Params=M1ARTM0012219; Alan Levin,

eliminated evidence of a hijacking attempt or other on-board disturbance in the crash of two Russian planes in 2004.[90] Most recently, black box data confirmed pilot error in a fatal crash in Kentucky in late 2006.[91]

What David Warren did not expect—or did not articulate, at least—is the effect the black boxes have had on civil litigation and criminal trials, including the economic impact on the expert witness industry.[92] According to the Collision Safety Institute, expert testimony regarding EDR data has aided in criminal convictions and death-penalty sentences or high-dollar verdicts in civil cases.[93]

For example, in Illinois, a truck's black box data helped result in a $1.2 million verdict for victims in an accident involving a trucker and a station wagon.[94] The truck forced the station wagon underneath a school bus, killing a couple and their two children. The data showed the truck driver maintained his speed for six seconds after the crash, leading the plaintiff experts to believe the truck driver had fallen asleep at the wheel.[95]

Also in Illinois, an on-duty police officer was broadsided by an empty hearse.[96] Eye witnesses said the hearse ran a red light, but their stories varied. The hearse driver

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Error in Comair Crash Fairly Common, USA Today, www.usatoday.com/news/nation/2006-08-27-ky-crash-investigation_x.htm (last visited June 10, 2007).

[90] Associated Press, *Russia Plane Crashes Caused by Explosives*, MSNBC.com, http://www.msnbc.msn.com/id/5810127 (last visited June 10, 2007).

[91] CBS / Associated Press, *Flight Data: Plane on Wrong Runway*, CBS News, http://www.cbsnews.com/stories/2006/08/27/national/main1936906.shtml (last visited June 10, 2007).

[92] www.accidentreconstruction.com lists 24 experts claiming EDR data as a specialty area while other accident reconstructionists advertise expertise in EDR data on their individual websites. *See, e.g.,* Ruth Consulting, *Expert in Automotive Restraint Systems & Event Data Recorders*, www.ruthconsulting.com (last visited June 10, 2007).

[93] *See* Collision Safety Institute, *CDR Case Law*, http://www.collisionsafety.net/cdrcaselaw.htm (last visited June 10, 2007).

[94] Scanlan Law Group, *Fatal Crash Caused by Sleeping Truck Driver Yields $1.2 Million for Victims*, http://www.scanlanlawgroup.com/lawyer-attorney-1159215.html (last visited June 10, 2007).

[95] *Id.*

[96] CNN, *Transcripts*, http://edition.cnn.com/TRANSCRIPTS/0312/06/nac.00.html (last visited June 10, 2007).

claimed he blacked out from a diabetic seizure and could not remember what happened.[97] The EDR data showed the driver accelerated as he approached the light, and braked one second before the crash, proving the driver was in control of the vehicle.[98] The officer settled with the funeral home for over $10 million.[99]

In 2002, two men were racing on a New York highway, reaching speeds of 130 miles per hour.[100] One car crashed into a Jeep, tearing it in half.[101] A split second later, the second car rammed into the front end of the Jeep, running it off the road.[102] The crash killed the two occupants of the Jeep. In a case of first impression, the court ruled the EDR data was admissible against the defendants.[103]

The issue of EDR data might have been novel in 2002, but it certainly is not now. In the past few years, legislatures have addressed the issue of who owns the data and who can retrieve it, and courts have addressed the admissibility of the data in civil and criminal cases, and ruled on warrant requirements in criminal cases.

II. State of the Law

A. Information Wasteland.

Most automobile owners are unaware that manufacturers have been installing EDRs in passenger automobiles for at least two decades.[104] Only recently have a few state governments attempted to address auto manufacturers' failure to notify the public about these recording devices.

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[97] *Id.*
[98] *Id.*
[99] *Id.*
[100] Harris, *supra* note 60.
[101] *Id.*
[102] *Id.*
[103] *Id.* Author could find no disposition of this case.
[104] NBC5.com, *supra* note 71.

In 2004, California enacted Vehicle Code § 9951 requiring manufacturers of new motor vehicles installing EDRs or SDMs to disclose that in the owner's manual. By definition, the recorder documents speed, direction, a history of where the vehicle has been, steering performance, brake performance and driver's seatbelt status.[105] The statute permits only the vehicle owner to download the data unless that retrieval satisfies one or more of several exceptions to the rule.[106] The data retriever may share the information among motor vehicle safety and medical research communities to advance motor vehicle safety if he does not release the owner's or driver's identity.[107] The Act applies to any vehicle manufactured after July 1, 2004.[108]

In 2005, several state legislators jumped on the bandwagon and proposed legislation relating to EDRs, but most legislation died without ever taking a breath.[109] A few states did manage to pass some form of legislation similar to the 2004 California law.

In 2005, Arkansas passed legislation requiring a seller or manufacturer to provide written notice to a new automobile purchaser of the presence and type of the motor

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[105] CAL. VEH. CODE § 9951(b)(1)-(5) (West 2004).

[106] *Id.* § 9951(c)(1)-(4). Data may be retrieved by anyone with the owner's permission, by court order, for the purpose of improving motor vehicle safety, including medical research of the human body's reaction to motor vehicle accidents, and the identity of the registered owner or driver is not disclosed when retrieving the data, or if a licensed new car dealer or mechanic needs the data to diagnose, service or repair the vehicle. *Id.*

[107] *Id.* § 9951(d).

[108] *Id.*

[109] *See* National Conference of State Legislatures, *2005 Legislation Related to Event Data Recorders ("Black Boxes") in Vehicles*, http://www.ncsl.org/programs/lis/privacy/blackbox05.htm (last visited June 11, 2007) (citing *Alaska*, S.B. 18, 24th Leg., 1st Sess. (Alaska 2005); Connecticut, S.B. 824, 2005 Gen. Assem., Jan. Sess. (Conn. 2005) (passed Senate May 25, 2005 but the legislature adjourned June 8, 2005 with no action); Massachusetts, H.B. 1973, (Mass. 2005); Michigan, S.B. 902, 94th Leg., Regular Sess. (Mich. 2005); S.B. 903, 94th Leg., Regular Sess. (Mich. 2005); S.B. 904, 94th Leg., Regular Sess. (Mich. 2005); and S.B. 905, 94th Leg., Regular Sess. (Mich. 2005); Montana, H.B. 322, 59th Leg., Regular Sess. (Mont. 2005); New Hampshire, H.B. 599, 2006 Sess., (N.H. 2005) (bill passed house on March 30, 2005 but resulted in no law); New Jersey, A.B. 2090, 211th Leg. (N.J. 2005) and S.B. 2546, 211th Leg., (N.J. 2005); Pennsylvania, H.B. 1294, Gen. Sess. (Pa. 2005); Tennessee, H.B. 1303 and 1304, S.B. 1850, Gen. Assembly (Tenn. 2005) (failed when the legislature adjourned on May 28, 2005); Virginia, H.B. 697, 2468, 2134 and 2135, 2005 Sess., Gen. Assembly (Va. 2005) (died when legislature adjourned on February 27, 2005); West Virginia, H.B. 2850, Regular Sess., (W. Va. 2005) (passed House on March 24, 2005 but Legislature adjourned April 9, 2005 with no action).

vehicle event data recorder in the motor vehicle and the type of data that is recorded, stored, or transmitted on the motor vehicle event data recorder.[110] The Act purports to grant exclusive ownership of the data to the vehicle owner, and provides that, in the event of an accident, the data may not be released to anyone without the owner's consent.[111] However, the statute also provides that the data may be retrieved without the owner's consent by court order, or by a law enforcement officer based on probable cause of an offense under the laws of the State of Arkansas or by a law enforcement officer, a firefighter, or an emergency medical services in the course of responding to or investigating an emergency involving physical injury or the risk of physical injury to any person.[112] Unlike California, Arkansas by statute allows the data to be offered in evidence in civil or criminal cases upon a showing of relevance and reliability.[113] Violating the statute carries no penalty.

The Nevada legislation requires written notice to a purchaser of the EDR's presence and the type of data that is recorded, stored or transmitted on the EDR.[114] The law prohibits data retrieval without the owner's consent unless by court order or unless the data is retrieved for the purpose of conducting research to improve motor vehicle safety, including, without limitation, conducting medical research to determine the reaction of a human body to motor vehicle accidents, provided that the identity of the

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[110] ARK. STAT. ANN. § 27-37-103 (LexisNexis 2005).
[111] *Id.* Even though the statute does provide exceptions to this ownership, § (e)(1)(B) does prohibit passing the information to a lienholder or insurer that succeeds in ownership, and only allows the lienholder or insurer to use the information if it has a written release. *Id.* The owner's consent cannot be conditioned on payment of settlement or claim, nor can the insurer or lienholder require consent as a condition of the policy or lease. *Id.*
[112] *Id.* § 27-37-103(f).
[113] *Id.* § 27-37-103(i).
[114] NEV. REV. STAT. ANN. § 484.638(1) (LexisNexis 2005).

registered owner or driver is not disclosed in connection with the retrieval of that data.[115] A garageman or new vehicle dealer can retrieve the data for diagnosis, service or repair. The disclosure of a vehicle identification number pursuant to this paragraph does not constitute the disclosure of the identity of the registered owner or driver of the vehicle.[116] If the data is retrieved by a new vehicle dealer or a garageman to diagnose, service or repair the motor vehicle. Violation of this statute is a misdemeanor.[117]

The New York legislature enacted Vehicle & Traffic Law 416-b prohibiting data retrieval without the consent of the vehicle owner, agent or legal representative with the same exceptions as the other states discussed.[118] The Act applies only to vehicles manufactured on or after twelve months from the date of the Act.[119]

North Dakota's statute[120] is essentially the same as Nevada's and requires notification to purchasers through the owner's manual by model year 2007,[121] and prohibits an insurer from requiring consent to data access as a condition of insurability and prohibits the insurer from basing a rate assessment upon data retrieved with the owner's consent.[122]

Texas amended Chapter 547 of the Transportation Code[123] to require manufacturers of any automobile manufactured or sold in Texas to include in the owner's manual information about the recording devices, but did not specify a date by which the

[115] *Id.* § 484.638(2).
[116] *Id.* § 484.638(2)(c).
[117] *Id.* § 484.638(5).
[118] N.Y. VEH. & TRAF. LAW 416-b.
[119] *Id.*
[120] N.D. CENT. CODE, § 51-07-28 (LexisNexis 2005).
[121] *Id.* § 51-07-28(1).
[122] *Id.* § 51-07-28(6).
[123] TEX. TRANSP. CODE § 547.615 (LexisNexis 2006).

information must be included. It restricted data retrieval without the owner's permission with the same exceptions as in other states.

2006 saw even more state activity.[124] According to the National Conference of State Legislatures, twenty states either enacted or introduced legislation concerning EDR retrieval.[125] Some of this legislation was a carry-over from the year before.[126] Colorado[127] enacted legislation requiring manufacturers to disclose the presence of the EDR and restricted data retrieval without the usual exceptions[128] and prohibited publication except to a motor vehicle safety and research entity or a data processor "in order to advance motor vehicle safety, security or traffic management[.]"[129] The law carries no penalties for violation.

Maine legislation prohibits a lienholder or insurer from retrieving the data without the owner's release.[130] New Hampshire passed a law effective July 1, 2006, that mirrors the requirements of other state laws described in this section.[131] Effective January 1, 2007, manufacturers must disclose evidence of the sensing module through the owner's manual.[132]

Virginia enacted a statute mirroring the language contained in other statutes discussed in this section, but added vague language restricting law enforcement to

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[124] Connecticut, Colorado, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, South Dakota, Tennessee, Virginia, West Virginia and Wisconsin all introduced legislation in some manner pertaining to EDRs.
[125] National Conference of State Legislatures, *2006 Privacy Legislation Related to Event Data Recorders ("Black Boxes") in Vehicles*, http://www.ncsl.org/programs/lis/privacy/blackbox06.htm (last visited June 11, 2007).
[126] *Id. See, e.g.*, New York.
[127] C.R.S. § 12-6-402 (LexisNexis 2006).
[128] *Id.* § 12-6-402(2).
[129] *Id.* § 12-6-402(3)(b)(IV)-(V).
[130] 29-A M.R.S.A. § 1972 (2005).
[131] RSA 357-G:1 (N.H. 2006).
[132] *Id.* at III.

"constitutionally permissible" searches conducted if the police have probable cause to believe the information "contains evidence relating to a violation of the laws of the Commonwealth or the United States."[133]

All states require notification through the owner's manual alone. Therefore, any purchaser who fails to read the owner's manual will be ignorant of the device and will join residents of the states that fail to make provision for notification or against data retrieval without consent.[134]

At the federal level, Rep. Mary Bono (D-CA) introduced H.R. 5609 requiring automobile dealers to disclose to consumers the presence of EDRs on new automobiles.[135] More importantly, Mrs. Bono's legislation requires manufacturers to provide consumers with the option to enable and disable the devices.[136] The details of data ownership and exceptions are the same as the state laws already enacted. The legislation prohibits EDR installation in any vehicle manufactured after 2008 unless the consumer has the option to enable or disable the recording function.[137] Violation of the rule does not carry criminal penalties, but is an unfair or deceptive act or practice under the Federal Trade Commission Act (57 U.S.C. 57a(a)(1)(B)).[138]

B. Common Law

Case law has not assisted vehicle owners much, either. Only a few cases involve challenges to admitting EDR data, and those fall into two categories—a *Frye*[139] challenge

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[133] VA. CODE ANN. § 46.2-1008.6(B)(5) (2006).
[134] All states also exempt a subscription service, such as ONSTAR, from the requirements of the bill.
[135] H.R. 5609, 109th Cong. (2d 2006), available at http://thomas.loc.gov/cgi-bin/bdquery/z?d109:h5609 (on 6/23/2006, referred to House subcommittee which referred to the Subcommittee on Commerce, Trade and Consumer Protection).
[136] *Id.* Sec. 4.
[137] *Id.*
[138] *Id.* Sec. 5.
[139] Frye v. United States, 293 F. 1013 (D.C. Cir. 1923).

to the reliability of the data, or a claim that the data retrieval constituted an unreasonable search and seizure. Some cases have raised both arguments.[140]

Frye challenges.

When Florida tried Edwin Matos for manslaughter as a result of an automobile accident involving two fatalities,[141] the State offered expert testimony concerning the EDR data to prove the impact speed of Matos' vehicle. Matos challenged the scientific reliability of the EDR data under *Frye*.[142] The State's two experts collectively testified that the EDR was first introduced in the 1970s, was regularly used and accepted by the medical field, crash investigators, insurance companies, biomechanics, automobile safety and design experts, the NHTSA and NTSB. Matos offered no evidence at the *Frye* hearing. The trial court held EDR data met the *Frye* standard for admissibility, and Matos was convicted.[143] On appeal, Matos again challenged the EDR evidence. The appellate court affirmed the trial court, citing a 2002 Illinois case[144] holding that EDR data was neither new nor novel since EDR-like crash sensors had been in automobiles for more than ten years, and computers and televisions used the same microprocessors as did the EDRs.[145]

Search and Seizure challenges

A trial court suppressed EDR data in a case in which the defendant crossed over the center line resulting in a head-on collision, and was charged with vehicular homicide

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[140] *See* People v. Christmann, 776 N.Y.S.2d 437 (N.Y. J. Ct. 2004); People v. Hopkins, 2004-0338, 2004 N.Y. Misc. LEXIS 2902 (N.Y. County Ct. Aug. 30, 2004).
[141] Matos v. State, 899 So.2d 403 (Dist. Ct. App. 2005).
[142] *Frye*, 293 F. 1013.
[143] *Matos*, 899 So. 2d at 406.
[144] Bachman v. Gen. Motors Corp., 776 N.E.2d 262 (Ill. App. Ct. 2002).
[145] *Matos*, 899 So. 2d at 407.

by intoxication and vehicular homicide by recklessness.[146] A trooper trained in EDR data retrieval conducted a warrantless search of Holladay's vehicle.[147] The trial court held that no exception to the general warrant requirement existed to justify the search. The State appealed the evidence suppression, arguing that Holladay had no expectation of privacy in the equipment or safety features of her vehicle.[148] In fact, the Tennessee trooper testified that the data showed only "speed, engine speed, throttle, braking, seatbelts, and the number of times the ignition was turned on and off."[149] Since the data would not show blood alcohol levels, or any other evidence necessary to prove intoxication, suppression of the EDR data would not result in dismissal of the indictment. The court dismissed the appeal for lack of jurisdiction, and did not address the merits of requiring warrants to retrieve the data.[150]

In an unpublished New York case,[151] New York state troopers obtained a warrant to search a vehicle involved in a fatal crash, and included the EDR data in the search warrant. The defendant argued that all warrants were illegal since the State had insufficient evidence to suspect him of a crime, but his argument failed because the search warrants complied with all statutory requirements.[152] He also moved to suppress the EDR data under *Frye*, but the court refused to order a *Frye* hearing, holding that EDR data was sufficiently accepted by the scientific community, and no hearing was necessary.[153] The court did not discuss EDRs further. However, another New York court

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[146] State v. Holladay, No. E2004-02858-CCA-R3-CD (Tenn. Crim. App. filed Feb. 28, 2006).
[147] *Id.* at 2-3.
[148] *Id.* at 3.
[149] *Id.* at 2.
[150] *Id.* at 5.
[151] *Hopkins*, 2004 N.Y. Misc. LEXIS 2902.
[152] *Id.* at 10.
[153] *Id.* at 13-14.

held not only that SDM data was admissible, but required no foundation for such admission.[154]

Various cases have involved EDR questions at the trial court level as reported by various news organizations, but have not gone to appellate courts for review. [155]

III. Fourth Amendment – Search Warrants

The concept must have seemed simple to the framers of the Fourth Amendment. After decades of British soldiers bearing writs of assistance to search for and seize what the government believed to be smuggled goods,[156] the colonists determined to protect their homes from the likes of King George and ensure that a colonist and his castle were off limits to a search without a warrant that actually meant something.[157]

After some debate and several language changes,[158] the framers settled upon the following language:

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.[159]

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[154] *Christmann*, 776 N.Y.S.2d at 437 (citing *Bachman*, 776 N.E.2d at 272).
[155] *See, e.g.*, Harris, *supra* note 60 (People v. Soukup & People v. Slade); Ian C. Story, *Man Guilty in Teens' Deaths*, Traverse City Record-Eagle, Jan. 7, 2005, http://www.record-eagle.com/2005/jan/07schub.htm (People v. Schubert).
[156] Cornell University Law School, *Fourth Amendment Search & Seizure*, http://www.law.cornell.edu/anncon/html/amdt4frag1_user.html (last visited June 11, 2007).
[157] *Id.* n.2 (quoting 5 Coke's Rep. 91a, 77 Eng. Rep. 194 (K.B. 1604). "One of the most forceful expressions of the maxim was that of William Pitt in Parliament in 1763: 'The poorest man may in his cottage bid defiance to all the force of the crown. It may be frail--its roof may shake--the wind may blow through it--the storm may enter, the rain may enter--but the King of England cannot enter--all his force dares not cross the threshold of the ruined tenement.'").
[158] *Id.*
[159] U.S. CONST. amend. IV.

Mueller says that warrantless searches and retrieval of EDR data have "generally passed constitutional muster."[160] The legal question should not be *whether* warrantless searches "pass constitutional muster" but *why* they should pass a constitutional challenge. An examination of the exceptions to the warrant requirement can only lead to the conclusion that warrantless searches that result in nonconsensual retrieval of EDR data should be unconstitutional.

IV. Exceptions to the Warrant Requirement

At least one exception exists for every rule, and courts have created numerous exceptions to the search and seizure clause of the Fourth Amendment. Those exceptions that have little or no bearing on EDR data will be discussed briefly.[161]

A.) Consent Searches

The consent search warrant exception is not applicable to EDR data retrieval.

B.) Warrantless Arrests

The Warrantless Arrests search warrant exception is not applicable to EDR data retrieval.

C.) Searches in which the special needs of law enforcement make the probable cause and warrant requirements impracticable.

Sometimes, special needs of the state which exceed normal law enforcement permit the state to disregard probable cause and warrant requirements.[162] The Supreme Court has approved special needs searches for drug testing in the employment context,[163]

[160] Mueller, *supra* note 62, at 150-51.
[161] This paper will not discuss border searches or searches at sea.
[162] *See* Ferguson v. City of Charleston, 532 U.S. 67, 76 n.7 (2001).
[163] *See, e.g.*, Nat'l Treasury Employees Union v. Von Raab, 489 U.S. 656, 677 (1989) (urinalysis of Customs Service employees); Skinner v. Ry. Labor Executives' Ass'n, 489 U.S. 602, 633-34 (blood and urine tests of railroad employees involved in major train accidents); Knox County Educ. Ass'n v. Knox County Bd. of Educ., 158 F.3d 361, 384 (drug testing of school officials and teachers).

public safety,[164] or public school students.[165] No special needs justify seizing an EDR or its data without a warrant.

D.) Searches Incident to a Valid Arrest

Once police have made a valid custodial arrest, they may search the arrestee and his vehicle or other area within his immediate control[166] without a warrant and without a reasonable suspicion or probable cause to believe that the arrestee has weapons or evidence.[167] The validity of the search depends on the legality of the arrest.[168] If police have validly arrested an occupant of a vehicle, and have exclusive control of the vehicle, they may still search the passenger compartment and any containers within it.[169] Location is everything, however, because once a suspect is "under arrest and in custody, then a search made at another place, without a warrant, is simply not incident to the arrest."[170]

Since black boxes do not come within the Supreme Court's definition of a container, and the only justification an officer would have for slitting open the carpet underneath the passenger seat and removing the black box would be to prevent the

[164] *See, e.g., Skinner*, 489 U.S. at 627-31, 634 (drug testing justified by public safety interest in preventing and investigating train accidents); Aubrey v. Sch. Bd. of Lafayette Parish, 148 F.3d 559, 546 (5th Cir. 1998) (drug testing of school custodian who handled toxic substances); *Knox County Educ.*, 158 F.3d at 384(drug testing of school officials protected students).

[165] *See* Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 649-50, 653, 661-63 (1995) (drug testing public school students involved in interscholastic athletics).

[166] *See* Chimel v. California, 395 U.S. 752, 763 (1969) ("immediate control" means "the area from within which [the arrestee] might gain possession of a weapon or destructible evidence").

[167] New York v. Belton, 453 U.S. 451, 461 (1981) (citing United States v. Robinson, 414 U.S. 218, 235 ("The authority to search the person incident to a lawful custodial arrest, while based upon the need to disarm and to discover evidence, does not depend on what a court may later decide was the probability in a particular arrest situation that weapons or evidence would in fact be found upon the person of the suspect. A custodial arrest of a suspect based on probable cause is a reasonable intrusion under the Fourth Amendment; that intrusion being lawful, a search incident to the arrest requires no additional justification.")).

[168] *See, e.g.*, *Robinson*, 414 U.S. 218; Michigan v. DeFillippo, 443 U.S. 31, 35 (1979); United States v. Swann, 149 F.3d 271, 273 (4th Cir. 1998).

[169] *See Belton*, 453 U.S. 451. Under *Belton*, a container is any object capable of holding another object, including "closed or open glove compartments, consoles, or other receptacles located anywhere within the passenger compartment, as well as luggage, boxes, bags, clothing, and the like." *Id.* at 461.

[170] Preston v. United States, 376 U.S. 364, 367 (1964) (citing Agnello v. United States, 269 U.S. 20, 30 (1925).

suspect from using it as a weapon, this exception does not permit government officials to obtain the black box or its data without a warrant.

E.) Seizure of Items in Plain View

In some situations, an officer may seize evidence that is in plain view without first obtaining a warrant.[171] However, the officer must satisfy three criteria. He must lawfully make an initial intrusion or otherwise properly be in a position from which he can view a particular area, he must inadvertently discover incriminating evidence (he may not know in advance the location of the evidence and intend to seize it) and it must be immediately apparent to the police that the "items they observe may be evidence of a crime, contraband, or otherwise subject to seizure."[172] Police cannot justify seizing the EDR and its data under this exception because such a seizure cannot pass the *Brown* test. The EDR is generally located under the passenger seat and restricted from view, so the seizure fails the very first prong of *Brown*'*s* three-part test. Since police officers know where the EDR is located, seizure of the box and its data violates the second prong of the test. Absent abnormal circumstances, whether the data contains evidence of a crime will not be readily apparent to the officer, failing the third prong of the *Brown* test. Therefore, this exception to the warrant requirement does not apply to EDRs.

F.) Investigatory Detentions

Law enforcement officials may initiate an investigatory detention of persons if those officials can "point to specific and articulable facts which, taken together with rational inferences from those facts, reasonably warrant" such a detention.[173] However, the *Terry* court refused to "retreat" from previous holdings that police must obtain

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[171] *See* Coolidge v. New Hampshire, 403 U.S. 443, 465 (1971) (plurality opinion).
[172] Texas v. Brown, 460 U.S. 730, 737 (1983).
[173] Terry v. Ohio, 392 U.S. 1, 21 (1968) (Colloquially, this type of detention is known as a "Terry stop.").

advance judicial permission to seize a person and search his belongings unless the detention is justified by exigent circumstances.[174] The "simple good faith" of an officer is insufficient to warrant a seizure and search of a person.[175] The officer must have a reasonable suspicion of criminal activity, and must act reasonably during the detention and search.[176] However, officers may have an ulterior motive and make a pretextual stop of a person or vehicle in order to investigate that person or vehicle, even if they do not have a reasonable suspicion of a specific crime.[177]

Once an officer has reasonably stopped a vehicle, he may order the occupants out of the vehicle without any further suspicion of criminal activity.[178] However, the activities in which officers engage during an investigatory detention must reasonably relate to the circumstances giving rise to the detention.[179]

An investigatory detention does not give rise to a warrantless seizure of black box data. In *Terry*, the officer conducted a pat down to look for weapons, presumably for his own safety and that of the general public.[180] If a police officer conducts an investigatory detention and discovers criminal activity sufficient to make a formal arrest, the officer can then immobilize the vehicle and obtain a warrant to seize the data.

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[174] *Id.* at 21.
[175] *Id.* at 22.
[176] *Id.* at 19.
[177] Whren v. U.S., 517 U.S. 806 (1996) (evidence of illegal drug activity was admissible even though discovered by plain clothes police after stopping a suspicious vehicle for a routine traffic violation). *See also* Arkansas v. Sullivan, 532 U.S. 769 (2001) (per curium) (officer's intent to use traffic stop and arrest to conduct inventory search did not invalidate search); United States v. Dhinsa, 171 F.3d 721, 724-25 (2d Cir. 1998) (stop was valid even though officer testified that the traffic violation for which he stopped a vehicle played no part in his decision to make the stop).
[178] Pennsylvania v. Mimms, 434 U.S. 106, 111 (1977) (per curiam) ("The police have already lawfully decided that the driver shall be briefly detained; the only question is whether he shall spend that period sitting in the driver's seat of his car or standing alongside it.").
[179] *See Terry*, 392 U.S. at 20 (affirming the dual inquiry adopted in *Terry*, that the reasonableness of the detention depends upon "whether the officer's action was justified at its inception, and whether it was reasonably related in scope to the circumstances which justified the interference in the first place").
[180] *Terry*, 392 U.S. at 7-8.

G.) Administrative Searches

Administrative search warrants are generally required for nonconsensual safety, health or fire inspections of private, commercial or residential property.[181] Evidence of an existing statutory or regulatory violation, or a reasonable plan supported by a valid public interest, will satisfy the probable cause requirement for an administrative search.[182] An administrative search may be validated by the existence of exigent circumstances,[183] or by consent.[184] A government agency may not conduct an administrative search to pursue a criminal investigation,[185] and must obtain criminal warrants to conduct criminal investigations.[186]

Retrieval of the digital data within the EDR of an individual's vehicle is invalid based on the administrative search exception. This exception only applies to searches

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[181] *See* Camara v. Mun. Court of City & County of S.F., 387 U.S. 523, 534 (1967) (administrative searches by municipal health and safety inspectors constitute significant intrusions upon interests protected by Fourth Amendment, and such searches, when authorized and conducted without warrant procedure, lack traditional safeguards which Fourth Amendment guarantees to individuals; overruling Frank v. Maryland, 359 U.S. 360, to extent that it sanctioned warrantless inspections); Michigan v. Clifford, 464 U.S. 287, 291-95 (1984) (because owners had legitimate expectation of privacy in home partially destroyed by fire, administrative search warrant required to investigate cause of fire). *But see*, Michigan v Tyler, 436 U.S. 499, 510-11 (1978) (plurality opinion) (a previously authorized search of fire-damaged property that was suspended by smoke and darkness obviated need for warrant to resume search the next day). *See also* Marshall v. Barlow's, Inc., 436 U.S. 307, 324 (1978) (administrative search of a business for occupational safety reasons required warrant); Calabretta v. Floyd, 189 F.3d 808, 813-14, 816 (9th Cir. 1999) (child abuse investigation required administrative search warrant).

[182] *See* Donovan v. Dewey, 452 U.S. 594, 600 (if Congress has determined that warrantless searches are necessary to further a regulatory scheme, and federal regulation is sufficiently defined, owner of commercial property must know his property is subject to periodic inspections for specific purposes); *Marshall*, 436 U.S. at 320- 21 (specific evidence of an existing violation is probable cause for an administrative search warrant).

[183] *Clifford*, 464 U.S. at 293 n.4 (warrantless nonconsensual entry into fire-damaged property justified by threat that blaze might rekindle destroying evidence or threatening human life).

[184] *Carnara*, 387 U.S. at 539 ("[A]s a practical matter, warrants should normally be sought only after entry is refused . . .").

[185] *See Clifford*, 464 U.S. at 294-95 (administrative search warrant does not justify criminal investigation once administrative purpose is completed). S*ee, e.g.*, United States v. Johnson, 994 F.2d 740, 743 (10th Cir. 1993) (federal agency's administrative search of a taxidermy shop unjustified if search is a pretext only for conducting a criminal investigation).

[186] *See Clifford*, 464 U.S. at 294 (if evidence of criminal activity discovered during administrative search, evidence may be seized under plain view doctrine but used to satisfy probable cause requirement for criminal warrant). *See, e.g.*, Showers v. Sparigler, 192 F.3d 165, 172-73 (3d Cir. 1999) (criminal rather than warrant administrative warrant required to search property as part of a criminal investigation).

conducted for "nonconsensual" fire, health, and safety reasons, and for statutory or regulatory violations. This exception may also be valid when exigent circumstances threaten to destroy evidence if that evidence is not related to a criminal investigation.[187] In addition, "nonconsensual" infers that a search warrant is required and the governmental agency seeking to perform the search must attempt to obtain the owner's consent. Presently, consent is not a requirement to obtain EDR data.[188] A governmental agency's retrieval of EDR data falls outside the administrative exception to the requirements of a search warrant because it is not for fire, health or safety reasons.[189]

H.) Exigent Circumstances

Government officials may conduct a warrantless search or seizure when both probable cause and exigent circumstances exist. Exigent circumstances include: (1) imminent danger of loss or destruction of evidence;[190] (2) the safety of the officers or general public is threatened;[191] (3) the officers are in "hot pursuit" of the suspect;[192] or (4)

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[187] Jeffrey Kuras et al., *Thirty-First Annual Review of Criminal Procedure: I. Investigation and Police Practices: Warrantless Searches and Seizures*, 90 GEO. L.J. 1130, 1199 (2002).

[188] *See id.* at 1166 (describing various state requirements for consent and exceptions to the consent requirements).

[189] Many state statutes allow warrantless retrieval of the data by an emergency response provider and is used only for the purpose of determining the need for or facilitating an emergency response. *See, e.g.*, VA. CODE ANN. § 46.2-1008.6(B)(5) (2006). This would only occur if the automobile had a crash notification system through a service such as ONSTAR, and would not be applicable to police retrieving data at an accident site.

[190] *See* Cupp v. Murphy, 412 U.S. 291, 294-96 (1973) (exigent circumstances justified warrantless search of fingernails for evidence because police feared destruction of the evidence). *See also* Schmerber v. California, 384 U.S. 757, 761-77 (1996) (exigent circumstances justified warrantless seizure of blood sample for alcohol level testing because police feared dissipation of alcohol in blood).

[191] *See Hayden*, 387 U.S. at 298-99 (exigent circumstances justified warrantless search of house for robbery suspect and weapons since delay would endanger officers and the public); United States v. Bartelho, 71 F.3d 436, 442 (1st Cir. 1995) (exigent circumstances justified warrantless search since officers received report that defendant was threatening woman inside with loaded weapon).

[192] *See* United States v. Santana, 427 U.S. 38, 42-43 (1976) (exigent circumstances justified warrantless search because suspect was chased from doorway of home); *Hayden*, 387 U.S. at 298-99 (exigent circumstances justified warrantless search because armed robbery suspect fled into home).

the suspect is likely to flee before the officer can obtain a warrant.[193] Officers may immediately conduct a warrantless search to preserve evidence that is in imminent danger of being removed or destroyed.[194]

During a criminal investigation, the disposability of narcotics generally creates an exigent circumstance to justify a warrantless search or seizure.[195] Exigent circumstances may include public safety hazards such as a burning building,[196] or a reasonable belief that an officer's safety or the public safety is threatened.[197] "Hot pursuits" combined with probable cause may justify officers to conduct warrantless searches or seizures.[198] The Supreme Court has defined a "hot pursuit" as a chase and not necessarily involving an automobile.[199] Finally, if the officer reasonably believes the suspect will flee before the officer can obtain a warrant, he may conduct a warrantless search to prevent the suspect from escaping or resisting arrest.[200]

The officer and public safety, "hot pursuit," and fleeing suspect exigencies are not applicable to EDR data retrieval. EDR data is not illegal and cannot be considered

[193] *See* Minnesota v. Olson, 495 U.S. 91, 100 (1990) (the need to prevent suspect's escape may justify a warrantless entry).
[194] *See Cupp*, 412 U.S. at 296 (search valid because suspect had motive to destroy evidence under fingernails); Kerr v. California, 374 U.S. 23**,** 40-42 (1963) (search valid because marijuana is easily destroyed or hidden); *But see, e.g.*, United States v. Gorski, 852 F.2d 692*,* 695 (2d Cir**.** 1988) (search invalid because evidence was not accessible to defendant).
[195] *See, e.g.*, United States v. Cephas, 254 F. 3d 488, 495-96 (4th Cir. 2001) (apartment search valid because officer reasonably believed marijuana would be destroyed before warrant could be obtained).
[196] *See* Clifford, 464 U.S. at 293 (entry justified because building on fire); *Tyler*, 436 U.S. at 509 (same).
[197] *See Hayden*, 387 U.S. at 299 (warrantless entry into house to search for suspect and weapons valid when delay would endanger lives of officers and citizens).
[198] *See Santana*, 427 U.S. at 42-43 (warrantless entry into home vestibule chasing a narcotics suspect valid because officers in hot pursuit had probable cause to arrest suspect, and suspect cannot evade arrest be retreating to a private place). *But see* Welsh v. Wisconsin, 466 U.S. 740, 753 (warrantless entry into home after Defendant had abandoned his vehicle, left the scene and arrived home following a traffic violation that was not punishable by incarceration was unconstitutional).
[199] *Id.* at 43 (chasing suspect into vestibule constituted hot pursuit).
[200] *See, e.g.*, United States v. Wihbey, 75 F.3d 761, 767 (1st Cir. 1996) (reasonable belief that drug supplier might flee or destroy evidence justified warrantless entry); United States v. Hudson, 100 F.3d 1409, 1417 (9th Cir. 1996) (fear suspect would flee, destroy evidence, or resist arrest justified officer's warrantless entry).

contraband. If police impound the vehicle, there is no danger of the data being destroyed or lost, so the police can take the time to justify a search warrant for the data retrieval and should be required to do so.[201]

I.) Inventory Searches

Government officials taking lawful custody of property[202] may conduct a warrantless search of that property to inventory and protect the owner's property while it is in custody and protect the government against claims of stolen or lost items,[203] and to protect officers from any potential danger.[204] Officials must conduct an inventory search according to standardized criteria,[205] but those criteria must be reasonable and administered in good faith.[206]

Inventory searches are permissible if they are conducted to protect the vehicle's contents, protect officers against claims for lost or stolen contents, or to protect officers against potential dangers. The EDR and its data are protected if the government protects the vehicle itself against loss or destruction. A driver will likely not make a claim against a police department for loss or theft of something he does not even know he has, obviating any theft or loss claims. Since the device and its data are in no way dangerous, no officer can claim self-protection as a basis for warrantless retrieval of the EDR data.

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[201] *See Belton*, 453 U.S. at 460 (while officer searched vehicle it was temporarily impounded).
[202] Official can establish lawful custody in different ways. *See* Colorado v. Bertine, 479 U.S. 367, 368 n.1 (1987) (arresting driver for being under the influence of alcohol constitute lawful custody); United States v. Penn, 233 F.3d 1111, 1116 (9th Cir. 2001) (uninsured vehicle could not be driven and was lawfully in police custody).
[203] *See* United States v. Lage, 183 F.3d 374, 380 (5th Cir. 1999) (warrantless inventory search valid to protect property owner and prevent claims of theft or loss against the police department). *But see Bertine*, 479 U.S. at 376 (Blackmon, J., concurring) (warrantless inventory search cannot be carried out for the sole purpose of investigation for criminal activity).
[204] *See, e.g.*, United States v. Ford, 986 F.2d 57, 60 (4th Cir. 1993) (inventory search of car valid to protect against danger and loss claims); United States v. Baker, 228 F.3d 751, 758 (6th Cir. 2000) (abandoned car inventory search valid to protect public, car owner, and police).
[205] *See e.g.*, Florida v. Wells, 495 U.S. 1, 4 (1990).
[206] *See Bertine*, 479 U.S. at 374.

Therefore, this exception to the warrant requirement does not apply to EDR systems.

J.) Seizure of Items in Plain View

In some situations, an officer may seize, without a warrant, evidence that is in plain view. However, the officer must satisfy three criteria. He must lawfully make an initial intrusion or otherwise properly be in a position from which he can view a particular area, he must inadvertently discover incriminating evidence (he may not know in advance the location of the evidence and intend to seize it) and it must be immediately apparent to the police that the "items they observe may be evidence of a crime, contraband, or otherwise subject to seizure."[207] Since the EDR is generally located under the passenger seat and restricted from view, the very first prong of *Brown's* three-part test fails. The very fact that police officers know where the EDR is located violates the second prong of the test. In routine circumstances, whether the data contains evidence of a crime will not be readily apparent to the officer. Therefore, this exception to the warrant requirement does not apply to EDRs.

K.) Container Searches

If police have a reasonable suspicion that evidence of criminal activity may be found in a movable container, they may search that container to prevent loss or destruction of evidence.[208]

However, the box containing EDR data is neither a container nor movable. A warrant is generally required to search the contents of a seized container, but the requirement is waived (1) in a vehicle regardless of whether probable cause applies to the

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[207] *Brown*, 460 U.S. at 737.

[208] *See* Carroll v. United States, 267 U.S. 132, 153 (U.S. 1925) (recognizing the difference between the search of a store, home, or other structure for which a warrant readily may be obtained and the search of a ship, wagon, or automobile, for contraband goods, where it is not practicable to secure a warrant because the vehicle can quickly be moved).

vehicle or the container,[209] (2) if the contents are in plain view or can be inferred from the container's appearance,[210] or (3) if the vehicle is abandoned.[211] Likewise, police do not need a warrant simply to extend a previously conducted private search.[212] After police lawfully seize an individual or container, they do not need a warrant to open any container within the arrestee's reach,[213] briefly seize luggage for an inspection based on reasonable suspicion,[214] or conduct an inventory search.[215]

Warrantless searches and seizures of abandoned property do not violate the Fourth Amendment.[216] If a driver fled the scene of an accident, this exception might apply. However, if the police have properly seized the vehicle, regardless of its condition after the accident, the seizure eliminates the chance of loss or destruction of evidence and the police have no reason not to obtain a search warrant while the vehicle is in custody. A warrant is not required to extend a previously conducted private search.[217]

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[209] *See* California v. Acevedo, 500 U.S. 565, 580 (1991). *See also* Wyoming v. Houghton, 526 U.S. 295, 296 (1999) (officer justified in searching passenger's belongings capable of concealing the object of a vehicle search).

[210] *See, e.g.*, United States v. Buchner, 7 F.3d 1149, 1155 (5th Cir. 1993) (purse could be searched without warrant because opening in bag revealed suspicious green object); United States v. McDonald, 100 F.3d 1320, 1322 (7th Cir. 1996) (warrant unnecessary for officers to feel exterior of bags in cargo area and to smell air around bags).

[211] *See* Abel v. United States, 362 U.S. 217, 241 (1960).

[212] *See* United States v. Jacobsen, 466 U.S. 109, 115-21 (1984) (repetition of search already conducted by private party is authorized but police must obtain warrant before conducting more extensive search).

[213] *See Belton*, 453 U.S. at 460 (police may also examine the contents of containers found within the passenger compartment of a vehicle if the compartment is within reach of the arrestee); United States v. Veras, 51 F.3d 1365, 1371-72 (7th Cir. 1995) (warrantless search of secret compartment of car justified if within backseat passenger's reach at time of arrest).

[214] *See* United States v. Place, 462 U.S. 696, 706-10 (1983) (initial detention of suspicious luggage possibly containing contraband valid but became unreasonable when arrestee was detained for ninety minutes without probable cause).

[215] *See infra* Part IV-J, Inventory Searches.

[216] *See* United States V. Ramirez, 145 F. 3d 345, 353 (5th Cir. 1998) (officer's reliance on relatives testimony provided good faith belief that the defendant fled to Mexico and abandoned the vehicle, therefore, warrantless search was valid); Smith v. Thornburq, 136 F.3d 1070, 1075 (6th Cir. 1998) (warrantless officers reasonably believed that vehicle was abandoned when found running in an area known as a dump for stolen vehicles valid for warrantless search).

[217] *See Jacobsen*, 466 U.S. at 115-21 (police may repeat a search conducted by a private party but must obtain a warrant before conducting a more extensive search).

The container search exception, like the *Carroll*[218] automobile exception, enjoyed relatively little change until 1977 when the Court took, as O'Connor calls it, a "container exception detour."[219] Beginning with *United States v. Chadwick*,[220] the Supreme Court created a wilderness it had to fight its own way out of.

In *Chadwick*, railroad officials watched a footlocker they believed held a controlled substance.[221] In fact, while defendants were sitting on the footlocker, they did not notice a police dog alert the officials to the presence of what later turned out to be marijuana.[222] The officials waited until the defendants loaded the footlocker into the trunk of an automobile then arrested the defendants before anyone could start the engine.[223] The officials had neither an arrest warrant nor a search warrant, even though they had suspected contraband two days before the footlocker's arrival in Boston.[224] An hour and a half after arresting the defendants, the officials opened the footlocker, still without a warrant, even though no one believed exigent circumstances existed requiring them to open the footlocker before they could secure a warrant.[225] Before trial, defendants moved to suppress the seized marijuana, and the government argued the evidence was admissible under the automobile exception and as a search incident to arrest.[226] The trial court disagreed, suppressed the evidence, and the First Circuit affirmed, holding that neither exception applied to the seized evidence.[227] The Supreme

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[218] *See infra* Part IV-L, Vehicle Searches.
[219] O'Connor, *Vehicle Searches – The Automobile Exception: The Constitutional Ride from Carroll v. United States to Wyoming v. Houghton*, 16 TOURO L. REV. 393, 405 (Winter 2000).
[220] United States v. Chadwick, 433 U.S. 1 (1977).
[221] *Id.* at 3.
[222] *Id. at* 4.
[223] *Id.*
[224] *Id.* at 3.
[225] *Id.* at 4.
[226] *Chadwick*, 433 U.S. at 5.
[227] *Id.* at 5-6.

Court affirmed, first holding that the diminished expectation of privacy in an automobile did not apply to the footlocker because it, unlike an automobile, is a "repository of personal effects."[228] Next, the Court held that, with the footlocker immobilized and in police custody, the officials were unreasonable to search the footlocker without a warrant.[229] Finally, the Court held that a search of a footlocker's contents that were not within the defendants' exclusive control, with no danger that the defendants could access the items within the container to destroy evidence or injure the officials, eliminated any exigent circumstances.[230] The Court drew a line in the legal sand "at the point where the property to be searched comes under the exclusive dominion of police authority,"[231] and held any search past that line required a warrant.[232]

Less than two years later, along came *Arkansas v. Sanders*.[233] Police received a tip from a reliable informant that Sanders would arrive at the Little Rock airport carrying a suitcase with marijuana.[234] Sanders did, indeed, arrive at the airport with the suspected suitcase, placed the suitcase in the trunk of a taxi, and drove away.[235] Police stopped the taxi, had the taxi driver open the trunk, and opened the suitcase without a warrant or Sanders' consent.[236] Police seized 9.3 pounds of marijuana in ten plastic bags.[237] Before trial, Sanders moved to suppress the seized contraband, which the trial court denied "without explanation."[238] The Supreme Court of Arkansas relied on *Chadwick* and

[228] *Id.* at 13.
[229] *Id.*
[230] *Id.* at 15 (citing *Preston*, 376 U.S. at 367).
[231] *Id.*
[232] *Chadwick*, 433 U.S. at 15.
[233] 442 U.S. 753 (1979).
[234] *Id.* at 755.
[235] *Id.*
[236] *Id.*
[237] *Id.*
[238] *Id.* at 756

Coolidge v. New Hampshire,[239] and held that the trial court should have suppressed the marijuana because a warrantless search requires exigent circumstances and probable cause.[240] While the government had satisfied probable cause, the Court could find no exigent circumstances since the suitcase was exclusively in police jurisdiction.[241]

The Supreme Court then reviewed the Fourth Amendment principles and the exceptions to the amendment,[242] and distinguished automobiles and other private property.[243] The Court then commended the officers for "apprehending [Sanders] and his luggage,"[244] but concluded "that the State failed to carry its burden of demonstrating the need for warrantless searches of luggage properly taken from automobiles"[245] because the "extent of mobility" is not dependent upon the place from which the luggage was taken,[246] and propounded the general rule that there was "no greater need for warrantless searches of luggage taken from automobiles than of luggage taken from other places."[247] The Court then refused to extend *Carroll* and allow warrantless searches of luggage merely because it was taken from an automobile.[248] In his concurrence, Chief Justice Burger pointed out that the police believed marijuana was in the suitcase before they ever saw it, so their duty to obtain a search warrant was clear.[249]

Then, in 1981, the Court decided *Robbins v. California*.[250] When California Highway Patrol officers stopped a station wagon being driven erratically, they smelled

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[239] 403 U.S. 443 (1971).
[240] *Sanders*, 442 U.S. at 756.
[241] *Id.*
[242] *Id.* at 759.
[243] *Id.* at 761.
[244] *Id.*
[245] *Id.* at 763.
[246] *Id.*
[247] *Id.* at 764.
[248] *Id.* at 765.
[249] *Id.* at 766 (Burger, J., concurring, Stephens, J., joining).
[250] 453 U.S. 420 (1981).

marijuana coming from the vehicle.[251] They searched the passenger compartment and retrieved marijuana and its necessary equipment, then placed Robbins in the patrol car and searched the tailgate area, locating a recessed passenger compartment.[252] When the officers retrieved and opened two packages wrapped in green paper, they discovered each package contained fifteen pounds of marijuana.[253] Robbins moved to suppress the evidence, but his motion was denied and Robbins was convicted.[254] Twice, the California Court of Appeals affirmed the evidence suppression, and the Supreme Court granted certiorari to address the "continuing uncertainty as to whether closed containers found during a lawful warrantless search of an automobile may themselves be searched without a warrant."[255] The Court dismissed the government's argument that the nature of the container itself could diminish the necessity for a warrant if the container was not used to carry personal effects, or items having "an intimate relationship to the person."[256] Once placed within a container, the Court reasoned, "a diary and a dishpan" enjoy equal protection.[257] The Court then held that anything placed "within a closed, opaque container" enjoyed protection from a warrantless search, no matter the contents of the container.[258] Therefore, *Chadwick*, *Sanders* and *Robbins* seemed to suggest conflicting constitutional rules regarding vehicle searches.[259]

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[251] *Id.* at 422.
[252] *Id.*
[253] *Id.*
[254] *Id.*
[255] *Id.* at 423.
[256] *Id.* at 425-26.
[257] *Id.* at 426.
[258] *Id.* at 428-29.
[259] O'Connor, *supra* note 200, at 412-13 ("If the police have probable cause to believe that evidence of a crime is in a mobile vehicle, the police are authorized to search every inch of such vehicle without a warrant, which would include tearing apart upholstery and other parts of the auto. However, if the police come upon a closed container . . . in a vehicle in which they have probable cause to believe evidence of a crime is located, the officers must cease searching and secure a warrant to authorize the opening of the container.").

The Court failed to clear up the confusion when it decided *New York v. Belton*[260] on the same day that it decided *Robbins*.[261] Four men sped past a New York police officer driving an unmarked car.[262] When he stopped the car, he found that none of the men owned the car or were related to its owner, and he smelled marijuana emanating from the car.[263] He also noticed an envelope marked "Supergold" on the floor, and he associated that designation with marijuana.[264] After he placed all four men at various places along the freeway, he reached into the passenger compartment and unzipped a pocket of a jacket belonging to Belton, retrieving some cocaine.[265] Belton moved to suppress the cocaine, but the trial court denied his motion, and the Appellate Division of the New York Supreme Court affirmed.[266] The New York State Court of Appeals reversed because the pocket was zipped, and there was no danger that Belton or any confederate could reach anything in it.[267] The U.S. Supreme Court reversed, holding that the police can search any container, open or closed, within the passenger compartment because if the passenger compartment is within reach of the arrestee, so is any container in that compartment.[268] However, the Court defined "container" as "any object capable of holding another object. It thus includes closed or open glove compartments, consoles, or other receptacles located anywhere within the passenger compartment, as well as luggage, boxes, bags, clothing, and the like."[269]

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[260] *Belton*, 453 U.S. 454.
[261] *Robbins*, 453 U.S. 420.
[262] *Belton*, 453 U.S. at 455.
[263] *Id.*
[264] *Id.*
[265] *Id.* at 456.
[266] *Id.*
[267] *Id.*
[268] *Id.* at 460.
[269] *Id.* at 460 n.4.

The Court then ended its detour around *Carroll* by deciding *United States v. Ross*.[270] A reliable informant telephoned the District of Columbia Police Department and gave officers a description of an automobile and an individual purporting to sell narcotics out of the trunk of that automobile.[271] The detective who took the call went to the area, found Ross and his Malibu. A search revealed a bullet on the front seat, a gun in the glove compartment, and a brown paper bag in the trunk containing heroin.[272] He drove the car to the station, where he did a more thorough search of the trunk, retrieving a zippered bag containing $3,200.00 in cash.[273] Ross' motion to suppress the heroin and the money was denied, and Ross was convicted.[274] A three-judge panel of the Court of Appeals upheld the search of the paper bag because Ross had no reasonable expectation of privacy there, but held the money should have been suppressed because the bag was zippered.[275] The entire Court of Appeals reheard the case en banc, and held that the police should not have searched either container because "the Fourth Amendment warrant requirement forbids the warrantless opening of a closed, opaque paper bag to the same extent that it forbids the warrantless opening of a small unlocked suitcase or a zippered leather pouch."[276] The Supreme Court went back to the *Carroll* decision, and the fact that its predecessor court upheld a search where the officials tore open upholstery to locate illegal liquor.[277] Holding that denying police the right to search closed containers inside a vehicle would nullify the practical consequences of *Carroll*, the Court stated that *contraband goods* are "rarely strewn across the trunk or floor of a car," and are

[270] 456 U.S. 798 (1982).
[271] *Id.* at 800.
[272] *Id.* at 801.
[273] *Id.*
[274] *Id.*
[275] *Id.* at 802.
[276] 456 U.S. at 802 (citing *Ross*, 655 F.2d at 1161)).
[277] *Id.* at 817-18.

rarely placed within an automobile unless they are "enclosed within some form of container."[278]

Applying *Ross* to black boxes is problematic. *Ross* still applies to contraband placed inside a vehicle by its occupant, not to data located inside a box placed in the vehicle by the manufacturer. While the container is a closed, opaque container, the contents of that container are not there at the behest of the arrestee or his confederates. The most that may be said is the data itself may support the government's contention that the driver has committed a crime, with the evidence at most showing that the driver sped up or did not, exceeded the speed limit or did not, turned or did not, and braked or did not.

L.) Vehicle Searches

The most likely exception to support warrantless searches and seizure of EDR data is the automobile exception which first appeared in *Carroll v. United States*.[279] A thorough explanation of the facts in *Carroll* is necessary to put *Carroll* and black box data into perspective.

The defendants in *Carroll* were transporting illegal liquor during Prohibition, and that liquor was subject to statutory seizure and destruction.[280] The question facing the *Carroll* court was whether Congress' intent in statutorily distinguishing between the need for a search warrant in searching a defendant's home and the lack of a need for a warrant to search the defendant's automobile *in the enforcement of the Prohibition Act* was

[278] *Id.* at 820 (emphasis added).
[279] 267 U.S. 132 (1925) (defendants convicted of illegally transporting alcoholic beverages based on a vehicle search).
280 Carroll, 267 U.S. at 144-45 (citing Sec. 25, title 2, of the Nat'l Prohibition Act, c. 85, 41 Stat. 305, 315).

consistent with the Fourth Amendment.[281] The Court found no incongruity, as long as the search was reasonable.[282]

The search in *Carroll* was to obtain contraband goods as evidence of illegal activity. The Court conceded that the illegal liquor could be destroyed if the defendant were allowed to drive away in his car,[283] and that obtaining a warrant before searching a vehicle would be impracticable if important evidence might be lost before the warrant was obtained.[284] To justify a warrantless search, said the *Carroll* court, the police must prove three elements: (1) a mobile vehicle; (2) probable cause to believe the vehicle contained evidence of a crime; and (3) impracticability of obtaining a search warrant.[285] The Court concluded that "[w]hen a man is legally arrested for an offense, whatever is found upon his person or in his control which it is unlawful for him to have and which may be used to prove the offense may be seized and held as evidence in the prosecution.[286] The *Carroll* court upheld the warrantless search because the officers had probable cause to believe the defendant's vehicle contained contraband and the vehicle's mobility created an exigent circumstance.[287]

As courts are wont to do, they began interpreting, expanding and explaining *Carroll*. In *Preston v. United States*,[288] Preston and three others were convicted of conspiracy to rob a federal bank, based largely upon evidence found in their motorcar

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[281] *Carroll*, 267 U.S. at 147.
[282] *Id.*
[283] *Id.* at 154.
[284] Kate L. Yannitte, *Fourth Amendment - Search and Seizure - New Jersey Supreme Court Continues to Protect the Privacy Rights of New Jersey's Citizens By Requiring Both Probable Cause and Exigent Circumstances in Order to Search a Vehicle Without a Warrant Pursuant to the Automobile Exception,* 11 Seton Hall Const. L.J. 935, 942 (Summer 2001) (citing Carroll, 267 U.S. at 153).
[285] *See* State v. Marquardt, 247 Wis. 2d 765, 782 (Wis. App. 2001).
[286] *Carroll*, 267 at 158.
[287] *Id.* at 162.
[288] 376 U.S. 364.

after their arrest.[289] Preston alleged that the arrest for vagrancy and the resulting search of the car violated the Fourth Amendment.[290] The Sixth Circuit affirmed the convictions,[291] but the Supreme Court reversed because Preston's conviction of conspiracy to rob a bank was based largely upon evidence obtained from the search of the impounded vehicle, and the search was invalid.[292] The warrantless search failed the test of reasonableness because it was not a search incident to a valid arrest nor did it meet the vehicle exception.[293] The accused was arrested and the vehicle in custody; therefore, police faced no danger that he or his agent could move the vehicle out of the jurisdiction.[294] *Carroll* was still alive and well.

Continuing to chip away at the warrant requirement, the Court held in *Chambers v. Maroney*[295] that if police officers have probable cause to justify a warrantless seizure of a vehicle on a public roadway, they are justified in conducting an immediate search of the vehicle's contents.[296] The Court saw no difference between "seizing and holding a car before presenting the probable cause issue to a magistrate and . . . carrying out an immediate search without a warrant."[297]

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[289] *Id.*
[290] *Id.*
[291] *See* United States v. Sykes, 305 F.2d 172 (6th Cir. 1962).
[292] *Preston*, 376 U.S. at 368.
[293] *Id.*
[294] *Id.*
[295] *Chambers*, 399 U.S. 42 (officers arrested alleged robbers, seized their vehicle and towed it to the station a warrantless search uncovered items linking the suspects to the robbery).
[296] *Id.* at 52.
[297] *Id.* at 52. *But see* O'Connor, *supra* note 200, at 399-400 ("How an automobile can be considered mobile when it is immobilized at the police station in the exclusive control of the policy is a mystery. . . .[I]n a footnote, the [Carroll] Court stated that it was not unreasonable in this case to take the car to the police station because all of the occupants of the car were arrested in a dark parking lot and a careful search at this time was impractical and perhaps not safe for the officers. Nevertheless, in Chambers, the court permitted the police to seize a car in transit and delay the search of the vehicle until the car was safely impounded at the police station. This position cannot square with a clear element of the Carroll doctrine" requiring a warrant whenever reasonably practicable. (footnotes omitted)).

About a year later, the Court again ran into the automobile exception in *Coolidge v. New Hampshire*.[298] A fourteen-year-old girl left home during a snowstorm for a babysitting job, and never returned.[299] Acting on a tip from a neighbor that Coolidge was away from home the night of the disappearance, police went to his home and questioned him with his wife present.[300] For nearly three weeks, police gathered evidence against Coolidge, and finally arrested him at his home.[301] About two and a half hours later, police had a towing company tow Coolidge's vehicles to the police station.[302] During the arrest, and the time between the arrest and the towing company's arrival, both vehicles were parked in the driveway and fully visible from the house and the street.[303] Coolidge's motion to suppress evidence taken from his vehicle and his home was denied, and Coolidge was convicted of murder.[304] The U.S. Supreme Court granted certorari to determine whether the search and seizure of evidence was constitutional based upon Coolidge's argument that the warrants were not issued by a "neutral and detached magistrate."[305]

The Court determined that the warrants were not issued by someone neutral and detached,[306] but the opinion was less than unanimous.[307] The State argued that the warrantless search of Coolidge's vehicle was valid because it was incident to a valid

[298] 403 U.S. 443.
[299] *Id.* at 445.
[300] *Id.* at 445-46.
[301] *Id.* at 447.
[302] *Id.*
[303] *Id.* at 447-48.
[304] *Coolidge*, 403 U.S. at 448.
[305] *Id.*
[306] *Id.* at 449.
[307] Justice Stewart delivered the opinion of the Court, joined by Justice Douglas, Justice Brennan and Justice Marshall.. Justice Harlan concurred in parts of the opinion and in the judgment and filed an opinion. Justice Black concurred in part and dissented in part and filed an opinion in which Justice Blackmun joined in Parts II and III and in portion of Part I. Justice White concurred in part and dissented in part and filed an opinion in which Chief Justice Burger joined. Chief Justice Burger dissented in part and concurred in part and filed an opinion. *Id.* at 445.

arrest,[308] it met the *Carroll* standards,[309] and that the vehicle itself was an instrument of the crime and, because it was easily seen in Coolidge's driveway, was in plain view.[310] The Court agreed that the seizure was incident to a valid arrest,[311] but disagreed that the search met the *Carroll* requirements.[312] "The word 'automobile' is not a talisman," said the Court, "in whose presence the Fourth Amendment fades away and disappears" and held that *Carroll* would not have justified a warrantless search of the automobile at the time Coolidge was arrested, making the later search at the police station illegal.[313] The Court also held the "plain view" argument inapposite,[314] because "[t]he police had ample opportunity to obtain a valid warrant; they knew the automobile's exact description and location well in advance; they intended to seize it when they came upon Coolidge's property" and "this is not a case involving contraband or stolen goods or objects dangerous in themselves."[315]

The automobile exception rolled forward in 1974 when the Court decided *Cardwell v. Lewis*.[316] Arthur Ben Lewis was arrested and tried for murdering Paul Radcliff by shooting him with a shotgun, then forcing Radcliff's car over an embankment.[317] A state District Court issued a warrant on October 10, finding probable cause to believe Lewis and his automobile were involved in the crime.[318] On October 9, police requested that Lewis come in for questioning on October 10, and he complied,

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[308] *Id.* at 455.
[309] *Id.* at 458.
[310] *Id.* at 464.
[311] *Coolidge*, 403 U.S. at 455.
[312] *Id.* at 458.
[313] *Id*. at 461.
[314] *Id.* at 468.
[315] *Id.* at 472.
[316] 417 U.S. 583 (1974) (plurality opinion). Justice Blackmon wrote the opinion, joined by Chief Justice Burger, Justice White and Justice Rehnquist. *Id.* at 585. Justice Powell concurred in the result, and Justices Stewart, Douglas, Brennan and Marshall dissented. *Id.* at 596.
[317] *Id.* at 586.
[318] *Id.* at 587.

driving his automobile to the station and parking it a half block away.[319] Police talked to him for several hours, never showing him the warrant, then arrested him and impounded his car.[320] The next day, the Ohio Bureau of Criminal Investigation took scrapings from Lewis' car and determined the paint matched that on Radcliff's car.[321] At trial, Lewis was convicted of first degree murder.[322]

Lewis filed a habeas petition, alleging that the seizure and search of his car violated the Fourth and Fourteenth Amendments to the U.S. Constitution. The District Court agreed, and reversed the conviction. The Sixth Circuit affirmed the District Court,[323] but the Supreme Court overturned the Sixth Circuit, holding the search and seizure were legal.[324] The court distinguished this case because police did not search the interior of the car,[325] and held affirmed that the search of a vehicle is "far less intrusive on the rights protected by the Fourth Amendment than the search of one's person or of a building."[326] Since police only "searched" the exterior of the car, they did not violate any expectation of privacy.[327] Further, impounding the car rather than inspecting it "on the spot" was also reasonable because Lewis asked one of his attorneys to make sure his wife got the car, raising the possibility or probability that the evidence might be destroyed.[328] The Court concluded by saying "we know of no case or principle that suggests that the right to search on probable cause and the reasonableness of seizing a car under exigent

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[319] *Id.*
[320] *Cardwell*, 417 U.S. at 587-88.
[321] *Id.* at 588.
[322] *Id.* at 585.
[323] 476 F.2d 467 (6th Cir. 1973). The Sixth Circuit held that scraping paint from the exterior of Lewis' car was a search not incident to arrest, and that the seizure of the car was not an instrumentality of a crime in plain view. *Cardwell*, 417 U.S. at 588.
[324] *Id.*
[325] *Id.*
326 *Id.* at 590 (citing Almeida-Sanchez v. United States, 413 U.S. 266 (1973) (Powell, J., concurring)).
[327] *Id.* at 591.
[328] *Id.*, at 595.

circumstances are foreclosed if a warrant was not obtained at the first practicable moment."[329]

After *Lewis,* the Court concentrated on container searches.[330] After wandering around in the container traffic jam, the Court returned to one rule governing automobile searches when it decided *California v. Acevedo*.[331] California police had an apartment under surveillance, saw Acevedo leave the apartment with a brown paper bag containing what the police believed to be marijuana, and place the bag in the trunk of a car.[332] When he began to drive away, the officers feared destruction of the evidence, stopped the car, opened the trunk, and seized the bag and the marijuana.[333] Acevedo moved to suppress the marijuana, but the trial court denied his motion.[334] He then pled guilty to the charges, but appealed the court's denial of his suppression motion. The state appeals court reversed, relying on *Chadwick*,[335] and holding the police had the "probable cause to believe that the paper bag contained drugs but lacked probable cause to suspect that Acevedo's car, itself, otherwise contained contraband."[336]

After some discussion of the preceding automobile cases,[337] the Court stated that the evolving decisions in those cases failed to protect privacy, confused courts and police officers, and impeded law enforcement.[338] The Court then returned to the rule that police

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[329] *Cardwell*, 417 U.S. at 595.
[330] *See supra* Part H, Container Searches.
[331] 500 U.S. 565 (1991).
[332] *Id.* at 567.
[333] *Id.*
334 People v. Acevedo, 216 Cal. App. 3d 586, 265 Cal. Rptr. 23 (1990).
[335] *Chadwick*, 433 U.S. 1.
[336] *Acevedo*, 500 U.S. at 568.
[337] The Court reviewed United States v. Carroll, Chambers v. Maroney, United States v. Ross, United States v. Chadwick, and Arkansas v. Sanders.
[338] *Acevedo*, 500 U.S. at 576.

may conduct warrantless searches of automobiles or containers found in automobiles if they have probable cause to believe the container contains contraband or evidence.[339]

The Court then ran over the exigency requirement of *Carroll* when it decided *Pennsylvania v. Labron*.[340] *Labron* comprised two consolidated cases involving Pennsylvania police officers conducting warrantless searches of automobiles.[341] In *Labron*, police witnessed a series of drug transactions on a Pennsylvania street, arrested the suspects, and searched the car from which the drugs were produced, finding bags of cocaine.[342] In *Kilgore*, a police informant agreed to buy drugs from the Kilgores. After the delivery, police searched Randy Kilgore's pickup and found cocaine on the floor.[343] In both cases, the Pennsylvania Supreme Court reversed the convictions, holding the evidence against the defendants should have been suppressed because in each instance, police had time to obtain a search warrant before searching the automobiles.[344] The Supreme Court reversed both cases, holding that "[I]f a car is readily mobile and probable cause exists to believe it contains contraband, the Fourth Amendment thus permits police to search the vehicle without more."[345]

Three years later, the Court gave police almost unlimited time to conduct a warrantless seizure or search of an automobile.[346] In *White*, police officers observed Tyvessel Tyvorus White using his automobile to deliver cocaine during July and August of 1993.[347] Therefore, his automobile was subject to forfeiture under the Florida

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[339] *Id.* at 579-80.
[340] 518 U.S. 938 (1996) (per curiam).
[341] *Id.* (Pennsylvania v. Labron and Pennsylvania v. Kilgore).
[342] *Id.*
[343] *Id.*
[344] *Id.*
[345] *Id.* at 939.
[346] Florida v. White, 526 U.S. 559 (1993).
[347] *Id.* at 561.

Contraband Forfeiture Act.[348] Several months later, police arrested White on charges unrelated to the drug sales, and seized his car merely because they believed it was forfeitable under the Forfeiture Act.[349] They then conducted an inventory search and found cocaine.[350] At trial on a charge of possession of cocaine, White moved to suppress the evidence, claiming that the seizure of his car violated the Fourth Amendment. The trial court reserved ruling on the motion, the jury found White guilty, and then the court denied his suppression motion.[351] The Florida Supreme Court reversed, holding that absent exigent circumstances, police must obtain a warrant before seizing property used in violation of the Forfeiture Act.[352] The Supreme Court reversed, holding that "because the police seized respondent's vehicle from a public area - respondent's employer's parking lot - the warrantless seizure . . . did not involve any invasion of respondent's privacy."[353] The Court did not bother with the several-month delay between the original use of the vehicle for illegal purposes and the subsequent seizure, but chalked the delay up to granting law enforcement latitude in performing their duties.[354]

Wyoming v. Houghton[355]then held that if police believed an automobile contained contraband, they could conduct a warrantless search of anyone in the vehicle, and any personal property belonging to anyone in the vehicle, even if the passengers had a reasonable expectation of privacy in that property.[356]

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[348] FLA. STAT. § 932.701, *et seq.* (1997).
[349] *White*, 526 U.S. at 561-62.
[350] *Id.* at 562.
[351] *Id.*
[352] 710 So. 2d 949, 955 (1998).
[353] *White*, 526 U.S. at 566.
[354] *Id.* at 559.
[355] 526 U.S. 295.
[356] *Id.* at 301.

Thus the Supreme Court makes a trip around the Fourth Amendment to *Carroll* and back again. However, black box data is distinguishable from all the items seized in these automobile exception cases. It is not contraband, it is not illegal, it is not a weapon, and in many cases, it is not evidence of a crime. It is merely evidence of movement. The automobile exception, even under *Carroll*, does not absolve the police of the warrant requirement before taking the box, or certainly before extracting the data.

V. Conclusion

The Fourth Amendment to the United States Constitution does not permit warrantless seizure of EDR data, and no exception to the Fourth Amendment brings the EDR data outside the warrant requirements. Black box information is not contraband or subject to seizure because it is not statutorily illegal. The black box itself is not a container subject to warrantless search. The box only holds data which may be, at most, evidence supporting a charge of criminal activity.

Not every state court subscribes to the *Carroll* decision.[357] Even if the exceptions to the warrant requirement satisfy federal courts that the government can seize the EDR or use its data without a warrant, states are not required to fall directly into line. State constitutions can provide greater protection to state citizens than those protections afforded by the United States Constitution, and every state can and should enact laws requiring warrants before police seize EDR data.

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[357] *See e.g*. State v. Gomez, 932 P.2d 1, 13 (N.M. 1997) (Quite simply, if there is no *reasonable* basis for believing an automobile will be moved or its search will otherwise be compromised by delay, then a warrant is required. While it may be true that in most cases involving vehicles there will be exigent circumstances justifying a warrantless search, we do not accept the federal bright-line automobile exception.”), emphasis in original; State v. Harnisch, 954 P.2d 1180, 1183 (Nev. 1998) (If we cast aside the exigency requirement from the automobile exception in situations such as the instant case, the probable cause warrant requirement would become virtually meaningless, and . . . we would permit the exception to swallow the rule.”)