

FILED

03 OCT 15 AM 11:29

CLERK OF THE SUPERIOR COURT
COUNTY OF STANISLAUS

[Signature]
DEPUTY

1 JAMES C. BRAZELTON
District Attorney
2 Stanislaus County
Courthouse
3 Modesto, California
Telephone: 525-5550
4 Attorney for Plaintiff
5

7 STANISLAUS COUNTY SUPERIOR COURT
8 STATE OF CALIFORNIA
9

-----o0o-----

10 D.A. No.1056770
11 THE PEOPLE OF THE STATE OF CALIFORNIA) No.1056770
12)
12 Plaintiff,) POINTS AND
13)
13 vs.) AUTHORITIES IN
14)
14 SCOTT LEE PETERSON,) PX Hrg: 10-20-03
15 Defendant.) Time: 8:30 a.m.
15) Dept: 2
16 -----o0o-----

16 Comes now the People of the State of California to submit
17 the following POINTS AND AUTHORITIES IN SUPPORT OF THE
18 ADMISSIBILITY OF EVIDENCE; AND MOTION TO SEAL CERTAIN INFORMATION
19 AS OFFICIAL INFORMATION PURSUANT TO EVIDENCE CODE SECTION 1040:
20

21 **FACTS**

21 Pursuant to search warrant authorization, a Global
22 Positioning System (GPS) monitor was placed on different vehicles
23 driven by the defendant during the month of January 2003. The
24 People seek to introduce evidence obtained from those warrants.
25

26 //
27 //
28

1 OFFICIAL INFORMATION

2 The People request that the court hold an in-camera hearing
3 regarding the location where the GPS receiver was placed on the
4 defendant's vehicle. The People make this request because that
5 information is official information pursuant to *Evid. Code Sec.*
6 1040. [See, *In re David W.* (1976) 62 Cal.App.3d 840 for a related
7 case involving the confidential nature of vehicle identification
8 numbers.] It is necessary that said information remain
9 confidential so as to not adversely affect future investigations.

10 GLOBAL POSITIONING SYSTEM EVIDENCE
11 MEETS THE GENERAL ACCEPTANCE
12 REQUIREMENT OF *PEOPLE v. KELLY*

13 This court should permit admission of tracking evidence
14 derived from a GPS monitor attached to the defendant's vehicle.
15 GPS evidence is both generally accepted in the scientific
16 community as an accurate and reliable position identifier, and
17 GPS evidence has been admitted in several states and Federal
18 Districts in this country.

19 The admissibility of testimony presented by experts in the
20 state of California based upon the use of new or novel scientific
21 techniques is governed by the rules set forth in *Frye v. United*
22 *States*, (D.C.Cir. 1923) 293 F. 1013, and *People v. Kelly*, (1976)
23 17 Cal.3d 24. Specifically, the "Kelly-Frye" rule in this state
24 requires the proponent of such evidence to establish, prior to
25 admission, the reliability of the scientific method employed.
26 (*People v. Kelly*, supra, at p. 30; see also *People v. Leahy*,
27 (1994) 8 Cal.4th 587, 604.)

1 Reliability for purposes of compliance with *Frye* has been
2 interpreted by the California Supreme Court to mean that the
3 technique used "must be sufficiently established to have gained
4 general acceptance in the particular field in which it belongs."
5 (*People v. Kelly*, supra, at p. 30.) The *Kelly* court based its
6 conclusion on the discussion in *Frye*, which noted:

7 ". . . while courts will go a long way in admitting expert
8 testimony deduced from a well-recognized scientific
9 principle or discovery, the thing from which the deduction
10 is made must be sufficiently established to have gained
11 general acceptance in the particular field in which it
12 belongs." (*Frye v. United States*, supra, at p. 1014.)

13 The *Kelly* court added an additional inquiry in its 1976
14 decision, requiring the proponent to demonstrate that "correct
15 scientific procedures" were used in the testing conducted in the
16 particular case. (*People v. Kelly*, supra, at p. 30.) It should be
17 noted that the *Frye* decision has been superseded by the decision
18 of *Daubert v Merrell Dow Pharmaceuticals, Inc.*, (1993) 509 U.S.
19 579, 587, and now the California rule is simply referred to as
20 the "Kelly" rule. (*People v. Bolden*, (2002) 29 Cal.4th 515,545.)

21 The California Supreme Court held when *Kelly* analysis is
22 required in *People v. Venegas* (1998) 18 Cal.4th 47, at 80, "The
23 *Kelly* test is intended to forestall the jury's uncritical
24 acceptance of scientific evidence or technology that is so
25 foreign to everyday experience as to be unusually difficult for
26 layperson's to evaluate. In most other instances, the jurors are
27 permitted to rely on their own common sense and good judgement in
28 evaluating the weight of the evidence presented to them." As
the below discussion illustrates, location data from GPS monitors

1 is not a new scientific technology and is frequently used for
2 navigation and mapping tasks. As such, admissibility analysis
3 under the *Kelly* rule is not required.

4 HISTORY OF GPS TECHNOLOGY

5
6 The Federal Aviation Administration (FAA) website gives a
7 good summary of the history and structure of the GPS system.

8 "GPS is a space-based radio navigation system consisting of
9 a constellation of satellites and a network of ground stations
10 used for monitoring and control. A minimum of 24 GPS satellites
11 orbit the Earth at an altitude of approximately 11,000 miles
12 providing users with accurate information on position, velocity,
13 and time anywhere in the world and in all weather conditions.

14 GPS is operated and maintained by the Department of Defense.
15 The Federal Aviation Administration is investigating and applying
16 the use of GPS as it pertains to aviation.

17 GPS, formerly known as the Navstar Global Positioning
18 System, was initiated in 1973 to reduce the proliferation of
19 navigation aids. By creating a system that overcame the
20 limitations of many existing navigation systems, GPS became
21 attractive to a broad spectrum of users worldwide. GPS has been
22 successful in virtually all navigation applications, and because
23 its capabilities are accessible using small, inexpensive
24 equipment, GPS is being utilized in a wide variety of
25 applications across the globe." [FAA Satellite Navigation Product
26 Teams, http://gps.faa.gov/gpsbasics/gps_basics_text.htm.]

27 GPS units are used worldwide in a variety of different
28 contexts. GPS is used in agriculture, aviation, marine,
environment, military, public safety, rail, recreation, space,
ground transportation, and land surveying [See FAA Website,
http://gps.faa.gov/gpsbasics/gps_basics_text.htm]. GPS units are
small, inexpensive, and readily available for purchase by the
civilian consumer [See, attached advertisement from
GPSdiscount.com.]

1 While no published California case has yet dealt with the
2 admissibility of GPS data, numerous other state and federal court
3 opinions have admitted GPS evidence. Further, federal,
4 California, and other state statutes frequently discuss GPS use.
5 The following is just a small sample of the way that GPS data is
6 being used throughout the world.

7
8 **GPS LAW ENFORCEMENT APPLICATIONS**

9 GPS evidence has been introduced in numerous cases across
10 the country in the law enforcement context.

11 **Federal Cases.** *United States v. Mack* (U.S.D.C. D. Colo.,
12 2003) 272 F.Supp.2d 1174, 1180 [GPS device attached to suspect
13 vehicle]; *United States v. McPhee* (11th Cir., 2003) 336 F.3d
14 1269, 1274, [Coast Guard officer testified about Coast Guard
15 vessel's location obtained via GPS data for jurisdiction
16 purposes]; *United States v. Lopez, et. al*, (1st Cir., 2002) 282
17 F.3d 1, 13-15, [Custom's officer testified as an expert that drug
18 importation schemes use GPS to facilitate air drops and boat to
19 boat transfers]; *United States v. Chrisman* (U.S.D.C. W.D. TX,
20 2002) 209 F. Supp.2d 659, 664 fn. 11, [GPS sensors used to combat
21 illegal immigration; See also, attached Federal Computer Week,
22 Oct. 20, 1997, L. Scott Tillett, and Border Patrol Press Release
23 dated May 23, 2000.]; *United States Cellular Corporation v.*
24 *Federal Communications Commission* (D.C. Cir., 2001) 254 F.3d 78,
25 81 [FCC established two phase plan for wireless 911
26 implementation, including the introduction of GPS technology into
27 telephones.]; *United States v. McIver* (9th Cir., 1999) 186 F.3d

1 1119, 1123, 1126-1127 [Federal law enforcement officers place GPS
2 tracking device on defendant's vehicle, no warrant needed. For a
3 related case see, *United States v. Knotts*, 460 U.S. 276, 281
4 (1983).]

5 **State Cases.** *State v. Clifton* (North Carolina, 2003) 580
6 S.E.2d 40, 42 [Stolen car located because it was equipped with a
7 GPS unit]; *State v. Green* (South Carolina, 2002) 567 S.E.2d 505,
8 509 [GPS evidence introduced to prove defendant was within one
9 half mile of school grounds]; *People v. Sullivan* (Colorado, 2002)
10 53 P.3d 1181, 1182-1184 [Evidence that defendant placed a GPS
11 device in his wife's vehicle sufficient to support a conviction
12 for stalking]; *State v. Jackson* (Washington, 2003) 76 P.3d 217,
13 220-221, [Police attach GPS tracker to suspect's vehicle.];
14 *People v. Zichwic* (2001) 94 Cal.App.4th 944 [In a related case,
15 the 6th Appellate District held that the installation of an
16 electronic tracking device did not require a search warrant];
17 *State v. Daniels* (Louisiana, 2001) 803 So.2d 157, 159, [Defendant
18 apprehended after the police located the truck he was driving via
19 its GPS system].

20
21 **GPS USED TO MONITOR DEFENDANTS ON
PROBATION/BAIL/CONDITIONAL RELEASE**

22
23 GPS units are also used extensively throughout the nation to
24 monitor defendants who are on parole, probation, as a condition
25 of bail, or as requirement of conditional release. [See attached
26 Declaration of Deputy District Attorney Rick Distaso regarding
27 California Department of Mental Health sexually violent predator
28

1 Brian Devries and the court ordered requirement that he be
2 subject to GPS monitoring]; See also, *United States v. Goba*
3 (U.S.D.C. W.D. New York, 2002) 220 F. Supp.2d 182, 195 [As a
4 condition of bail defendant ordered to be monitored by GPS];
5 *United States v. Malloy* (U.S.D.C. D. New Jersey, 1998) 11
6 F.Supp.2d 583, 584 [As a condition of bail defendant ordered to
7 be monitored by GPS]; *Commitment of Browning* (Texas, 2003) 2003
8 WL 21939791 -S.W.3d- [[As a requirement of conditional release
9 Texas sexually violent predator ordered to be monitored by GPS];
10 *Cooper v. State* (Florida, 2003) 845 S.2d 312, 313 [As a condition
11 of probation defendant ordered to be monitored by GPS]; *State v.*
12 *Schell* (Wisconsin, 2003) 661 N.W. 2d 503, 505 [As a condition of
13 probation defendant ordered to be monitored by GPS].

14 GPS MARINE NAVIGATION

15
16 GPS units are used extensively in the marine environment by
17 military, commercial, and civilian users. [See attached
18 advertisement from 123-gps.com]; The Coast Guard also has a
19 dedicated website to GPS marine navigation. That site is
20 continually updated so that all mariners will have up to date GPS
21 navigation assistance. [Coast Guard GPS navigation website
22 <http://www.navcen.uscg.gov>.] See also, GPS for Mariners, by
23 Robert J. Sweet.]

24 GPS marine usage is also reflected in case law. See,
25 *Franklin Insurance Company v. Levernier* (E.D. Wisconsin, 2003)
26 2003 WL 22004090 -F.Supp.2d- [GPS used in maritime navigation];
27 *Tullos v. Cal Dive International* (U.S.D.C. S.D. Texas, 2002) 188

1 F.Supp.2d 709, 711-712 [GPS generated navigational data used];
2 *United States v. Gary Locke* (2000) 529 U.S. 89, 118 Appendix,
3 #15 [U.S. Supreme Court notes Wash. St. Statute where GPS is
4 required for marine tankers' navigational systems]; *Tidewater*
5 *Marine v. Sanco International* (U.S.D.C. E.D. Louisiana, 2000) 113
6 F.Supp.2d 987, 997-998 [GPS used to navigate]; *National Shipping*
7 *Company of Saudi Arabia v. United States* (U.S.D.C. E.D. Virginia,
8 2000) 95 F.Supp.2d 482, 487 [1996 U.S. Navy used handheld GPS
9 units for navigation]; *Celestaire v. United States* (Fed. Cir.,
10 1997) 120 F.3d 1232, 1235 [GPS units are electronic navigational
11 instruments]; *Korpi v. United States* (U.S.D.C. N.D. Cal., 1997)
12 961 F. Supp. 1335, 1339 [1995 sailor using GPS].

13 GPS AVIATION NAVIGATION

14 GPS units are also used extensively for aviation navigation
15 by military, commercial, and civilian users. [For example, see
16 <http://www.Garmin.com/aviation>]; See also, *Grayson v. AMTI* (4th
17 Cir., 2000) 221 F.3d 580, 581; [FAA awarded technical assistance
18 contract to AMTI in May 1998]; *Cubic Defense Systems, Inc. v.*
19 *United States of America* (Fed. Ct. Claims, 1999) 45 Fed.Cl. 450,
20 453 [Suit by defense contractor regarding GPS for military
21 training aircraft]; A Lawyer-Flight Instructor's
22 Prognostications of the Implementation of Free Flight: How will
23 the Large-Scale Introduction of GPS into General Aviation
24 Cockpits Affect The Liabilities that Face Pilots and the Flight
25 Instructors who Train them?, 62 J.Air L. & Com 725 [1997 law
26 journal article on the introduction of GPS units into aviation
27
28

1 cockpits.]; Finally, see Aviator's Guide to GPS, by Bill Clarke.

2 3 4 **LAND SURVEYING**

5 Due to its precision nature, GPS is used extensively in land
6 surveying. See; GPS for Land Surveyors, Jan Van Sickle, January
7 2001, Ann Arbor Press, 2d ed; *Tomac V. Norton* (U.S.D.C. Dist. of
8 Columbia, 2003) 240 F.Supp.2d 45, 49 [GPS data used to determine
9 boundaries of federal wetlands]; *Vought v. Stucker Mesa*
10 (Colorado, 2003) 2003 WL 21380384 - P.3d - [GPS data sufficient
11 for land boundaries in Colorado]; *State of New York v. Sour*
12 *Mountain* (New York, 2000) 276 A.D.2d 8, 11 [Wildlife biologist
13 used GPS to affix location of rattlesnake den].

14 **RECREATION**

15 GPS units are used extensively by civilian recreational
16 consumers. As any cursory internet search will confirm, GPS is
17 used by hunters, fisherman, hikers, backpackers, and many other
18 persons who recreate in the outdoors [See also, GPS Made Easy:
19 Using Global Positioning Systems in the Outdoors, by Lawrence
20 Lethan]. Hertz rental car company even offers GPS units in their
21 rental cars! [See attached advertisement from Hertz NeverLost,
22 www.hertz.com.]

23 24 **STATUTORY REFERENCES TO GPS**

25 Many state and federal statutes also contain references to
26 GPS. [See, Calif. Pub. Res. Code (Surveying and Mapping) Sec.
27 8801(e), stating that "The system of horizontal geodetic control
28

1 stations within California whose horizontal positions have been
2 determined by **Global Positioning System survey**
3 **methods...**(emphasis added); Calif. Pub. Res. Code (Surveying and
4 Mapping) Sec. 8813(c), mandates that after Dec. 31, 1999, any
5 survey or map that uses state plane coordinates must have
6 horizontal positions determined by Global Positioning Survey
7 methods; Calif. Rev. and Tax. Sec. 6368.89b)(20, lists global
8 positioning systems as "qualified equipment" for certain tax
9 exemptions.]

10 Further, a search for "GPS" or "Global Positioning System"
11 in the Westlaw STAT-ALL (all states) data base shows there are 34
12 different statutes throughout the nation where GPS, or Global
13 Positioning System is found [See attached document list].

14 A search of the U.S. Code Annotated shows the following
15 federal statutes referencing GPS or Global Positioning System; 10
16 U.S.C.A. Sec. 2430; 10 U.S.C.A. Sec. 2281; 16 U.S.C.A. Sec. 1642;
17 38 U.S.C.A. Sec. 1710; 42 U.S.C.A. Sec. 14712; 49 U.S.C.A. Sec.
18 106; 49 U.S.C.A. Sec 301 [See attached].

19
20 **GPS EVIDENCE IS ADMISSIBLE WITHOUT KELLY ANALYSIS**

21 As is readily apparent from the above discussion, GPS data
22 is used extensively throughout the world for various navigational
23 needs. Further GPS data has been discussed in a large body of
24 case law throughout the country, and it's use is sanctioned by
25 statute in California, and the many other jurisdictions. GPS
26 data is no different than that produced by a compass, odometer,
27 sextant, or map. It is simply data that permits a person to know

1 | their position on the earth.

2 | The defense states that because their search of state and
3 | federal case law was "lacking on the issue of whether GPS based
4 | evidence can satisfy Kelly/Frye," GPS data must undergo Kelly
5 | analysis. That is not correct. Although the California Supreme
6 | Court did state that a published decision on a new scientific
7 | technique was one way to satisfy the *Kelly* rule, (*Venegas, supra,*
8 | at 53), the operative fact is that *Kelly* analysis requires
9 | evidence produced by new scientific technology. That is clearly
10 | not the case with GPS technology.

11 | To further illustrate the point, a search of California case
12 | law also did not find any published case dealing with the
13 | Kelly/Frye admissibility of evidence derived from a microwave
14 | oven. However, no one doubts the admissibility of evidence that
15 | a cup of coffee at room temperature placed in a microwave oven
16 | for three minutes would get hot.

17 | All of the defense contentions regarding GPS evidence go
18 | simply to the weight of the evidence, not its admissibility.
19 | Regarding the first defense contention that the government will
20 | reduce the accuracy of the GPS data, that is simply **NOT TRUE**. The
21 | process of degrading the GPS signal, called selective
22 | availability, was discontinued by the United States government on
23 | May 1, 2000. [See attached printouts from <http://gps.faa.gov>, and
24 | <http://www.navcen.uscg.gov>.] The remaining defense contentions
25 | (clarity of the signal, infrequency of data sampling, placement
26 | of the antenna of the tracking device, etc., see defense brief
27 | page 9) also only go to the weight of the evidence, not its

28 |

1 | admissibility.

2 | **KELLY'S THIRD PRONG**

3 | A limited Kelly hearing pursuant to Kelly's third prong is
4 | also not required for the admission of GPS data. As stated
5 | above, the Kelly court's additional inquiry, often referred to as
6 | the "third prong", requires the proponent to demonstrate that
7 | "correct scientific procedures" were used in the testing
8 | conducted in the particular case. (*People v. Kelly*, supra, at
9 | 30.) Some trial and appellate courts have improperly interpreted
10 | this provision to mandate that the procedures were employed
11 | "correctly" rather than that "correct" procedures were used.

12 | The California Supreme Court in *People v. Farmer* (1989) 47
13 | Cal.3d 888, was confronted with a defense contention that
14 | footprint evidence was improperly seized and preserved, in
15 | violation of the requirements of *Kelly-Frye*. The court concluded
16 | the argument was without merit. Specifically, the court stated:

17 | ". . . the *Kelly-Frye* rule tests the fundamental validity of
18 | a new scientific methodology, not the degree of
19 | professionalism with which it is applied. (See, e.g., *People*
20 | *v. Coleman* [(1988) 46 Cal.3d 749], at p. 775.) Careless
21 | testing affects the weight of the evidence and not its
22 | admissibility, and must be attacked on cross-examination or
23 | by other expert testimony." (*People v. Farmer*, supra, at p.
24 | 913.)

25 | Similarly, in a defense-mounted attack on the use of
26 | electrophoresis in protein genetic marker typing, the First
27 | District concluded the *Farmer* rationale was determinative. In
28 |

1 particular, the court of appeal noted:

2 "Much of appellant's argument at this level is directed
3 towards a perceived bias on the part of Mr. Keel, as well as
4 alleged careless testing procedures on the part of the
5 Oakland Police Department Laboratory. 'Careless testing
6 affects the weight of the evidence and not its
7 admissibility, and must be attacked on cross-examination or
8 by other expert testimony.' (*People v. Farmer* (1989) 47
9 Cal.3d 888, 913.)" (*People v. Smith* (1989) 215 Cal.App.3d
10 19, 28.)

11 The California Supreme Court has reaffirmed the fact that
12 the manner in which testing is conducted does not bear on
13 admissibility. In a death penalty blood and saliva stain protein
14 analysis case, a challenge was made to the admission of evidence
15 based on an alleged infirmity in the testing process. The Supreme
16 Court dismissed the contention, concluding that the *Farmer-Smith*
17 rationale was correct. (*People v. Cooper* (1991) 53 Cal.3d 771,
18 814.)

19 The question of the scope of the third prong of *Kelly* has
20 been addressed in California. The Court of Appeal in *People v.*
21 *Morganti*, supra, responding to a challenge that the People failed
22 to properly establish the use of correct procedures, noted:

23 ". . . [W]hen general acceptance is established by precedent,
24 the 'third-prong hearing' that must be conducted will not
25 approach the 'complexity of a full-blown' *Kelly* hearing.
26 ([*People v. Barney*, supra, at p. 825].) 'All that is
27 necessary in the limited third-prong hearing is a
28 foundational showing that correct scientific procedures were
used.' (*Ibid.*) The trial court properly found that the
prosecution made the necessary foundational showing. Not
only did Harmor testify that he followed established
procedure or protocol, his testimony establishes that he
followed the exact procedures that were deemed correct in
Yorba [*People v. Yorba* (1989) 209 Cal.App.3d 1017].)"
(*People v. Morganti*, supra, at pp. 661-662; see also *People*
v. Hill, supra, at p. 58.)

29 Significantly, the court later noted, "we focus on the