



Statement of Catherine Crump, Staff Attorney

American Civil Liberties Union

On

The Electronic Communications Privacy Act (ECPA) Part 7 - Geolocation
Privacy and Surveillance

Before the House Judiciary Subcommittee on Crime, Terrorism, and
Homeland Security

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II. Mobile Phone Technology Enables Invasive Tracking of Americans' Movements.

Today mobile phone technology makes it possible to obtain location data about the vast majority of Americans with great precision in both real time and historically. As of June 2012, there were 315 million wireless subscriber accounts in the United States, a number greater than the total U.S. population. Mobile phone technology has given law enforcement an unprecedented new surveillance tool. With assistance from mobile phone carriers, the government now has the technical capability to covertly track any one of the nation's hundreds of millions of mobile phone owners for 24 hours a day for as long as it likes. Through so-called tower dumps, it can also identify all of the individuals whose mobile phones used a particular tower, allowing law enforcement agents to infer who was present at a location days, weeks, or months after the fact.

A. Types of mobile phone location data available to law enforcement agents

Mobile phones yield several types of information about their users' past and present locations and movements: cell site location data, triangulation data, and Global Positioning System data. The most basic type of mobile phone location information is cell site data, or cell site location information, which refers to the identity of the cell tower from which the phone is connected and the sector of the tower facing the phone. This data is generated because whenever individuals have their mobile phones on, the phones automatically and frequently scan for nearby cell towers that provide the best reception. The carriers keep track of the registration information to identify the cell tower

carrier provide the a few cell as all cellular base station which can cover just one
hore⁴ As consumers embrace data hungry devices such as smartphones the carriers
have installed more towers each with smaller coverage areas in order to cope with the
demand for data

Further improvement in precision can be expected given the explosive demand for
wireless technology and its new services to the point that the gap between the
locational precision in today's cellular call detail records and that of a GPS tracker is
closing especially as carriers incorporate the latest technologies into their networks In
the words of Professor Blaze it is no longer valid to assume that the cell sector
recorded by the network will give only an approximate indication of a user's location

In addition to cell site information law enforcement agents can obtain location
data at a high level of accuracy by requesting mobile phone carriers to engage in
triangulation which entails collecting and analyzing data of the precise time and angle
at which the mobile phone's signal arrives at multiple cell towers Current technology can
pinpoint the location of a mobile phone to an accuracy of within meters or less
anytime the phone is on and the accuracy will improve with newer technology

Finally a mobile phone that has GPS receiver hardware built into it can determine
its precise location by receiving signals from global positioning satellites Current GPS
technology can pinpoint location when it is outdoors typically achieving accuracy of
within meters

B. Types of government requests for mobile phone data

Law enforcement agents can request two categories of cell site location
information: historical cell site data which can be used to retrace previous events or
prospective cell site data which can be used to track mobile phones in real time The
availability of historical information and the length of time this information is stored
depend on the policies of the mobile phone carrier According to an internal Department
of Justice document obtained by the ACLU through a public records act request mobile
phone carriers store their customers' historical location information for significant
periods of time Verizon stores the cell towers used by a mobile phone for one rolling
year T-Mobile keeps this information officially 4 months really a year or more

Schmidt *Cellular Telephone Basics: Basic Theory and Operation* Private Line Jan
http://www.privateline.com/cell_basics/iv_basic_theory_and_operation

⁴ Stephanie K. Pell, Christopher Soghoian, *Can You See Me Now? Toward Reasonable
Standards for Law Enforcement Access to Location Data That Congress Could Enact*
Berkeley Tech. L.J.

State ment of Prof. or Matt Blaze *supra* note at

Id. at

Id. at

Id. at

IV. Tracking People's Location Can Invade Their Privacy Because It Reveals a Great Deal About Them.

Location tracking enables law enforcement to capture details of someone's movements for months on end unconstrained by the normal barriers of cost and officer resources. In *United States v. Jones*, the Supreme Court held that a Fourth Amendment search occurred when the government placed a GPS tracking device on the defendant's car and monitored his whereabouts constantly.

person's life the government seeks to obtain is no less intimate simply because it has already been painted. It is hard to see how daily requests for historical location differ from continuous real time tracking.

While the *Jones* case dealt with long term tracking of movements even single points of mobile phone location data can intrude upon reasonable expectations of privacy. A single GPS data point revealing that someone is

The warrant and probable cause requirements are especially important here given the extraordinary intrusiveness of modern day electronic surveillance.

The warrant requirement imposes no unreasonable burden on the law enforcement agents who obtain these regularly and routinely for searches of homes, vehicles, and e-mail accounts. Warrants are a clear and familiar standard requested by law enforcement and issued by judges for hundreds of years. Moreover, under the GPS Act, obtaining warrants for geolocational information would be even less burdensome than the process law enforcement agencies have followed for decades to obtain telephone wiretaps.

VI. Specific Issues

The GPS Act could be strengthened through the inclusion of reporting requirements regarding law enforcement agencies' collection of geolocation information. To ensure law enforcement agencies may have a legitimate interest in keeping the details of specific investigations secret but when it comes to aggregate statistical information about the use of specific surveillance techniques the public interest is best served through disclosure.

Covert surveillance techniques are by their nature secret which has important ramifications for the ability of both Congress and the public to engage in oversight. Robust reporting requirements play a valuable role in filling what would otherwise be a void of information regarding the activities of government. For example each year the administrative office of the courts produces aggregate reports on the use of wiretap authorities by law enforcement agencies nationwide without revealing any sensitive investigative details these reports give Congress and the public meaningful insight into the frequency with which the government uses this surveillance technique and the kinds of crimes that they are used to investigate.

Last year Congress received some data regarding cell phone surveillance after Congressmen Barton and Markey wrote letters to the wireless carriers. Of the four largest carriers three provided statistics in their responses. T-Mobile declined revealing that they received 1 billion requests from law enforcement agencies each year. However only one company Sprint Nextel provided specific data about the location requests it receives.

Congress cannot perform effective oversight of these invasive surveillance

