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IN FOCUS

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Automated License Plate Readers: Background and Legal Issues

Automated license plate readers (ALPRs) are camera systems that capture the license plate data of vehicles, along with related information. They are generally available in fixed and mobile formats. Fixed ALPR systems are mounted in specific locations, often using existing infrastructure such as light poles, traffic lights, buildings, or bridges. Mobile ALPR systems are frequently mounted on police vehicles or privately contracted vehicles. Although details vary by system and jurisdiction, information obtained from ALPR systems may be included in certain databases—whether maintained by public or private entities—that are accessible or searchable by law enforcement. Law enforcement agencies use ALPRs for a variety of proactive and reactive policing purposes, including to gather intelligence and evidence, help identify potential suspects, and facilitate crime scene analysis.

Law enforcement use of ALPRs raises a range of questions for policymakers and the public. For instance, one consideration is how ALPR use may, while aiding criminal investigations, potentially infringe upon individuals' privacy and civil liberties—in particular, Fourth Amendment protections from unreasonable searches and seizures. In general, courts have found that "mere observation" of an object in plain view does not implicate the Fourth Amendment, which suggests that law enforcement's initial reading of a license plate using an ALPR is ordinarily not a Fourth Amendment search absent additional circumstances. The ALPR caselaw typically focuses instead on the related question of whether law enforcement queries of certain databases containing ALPR information amount to a Fourth Amendment search. No federal appellate court has decided that issue, although one circuit court judge discussed it in a concurrence. A number of federal trial courts and some state courts have upheld law enforcement access to such databases, while cautioning that warrantless surveillance through ALPRs could violate the Fourth Amendment in some circumstances. This In Focus provides an overview of ALPRs, select Fourth Amendment caselaw on their use, and congressional considerations.

Background on ALPR Technology

ALPR systems work by automatically capturing images or videos of passing vehicles. An algorithm then detects and reads the license plates within the photo/video. ALPR technology can also detect and capture additional, related information, including vehicle type and color, global positioning system (GPS) location data, and date and time. These tools also have the potential to identify individuals in the photos/videos through the use of facial recognition technology (FRT). After they catalog the license plate information, ALPR systems can compare these data points against various databases, including "hot lists," which contain a list of license plates linked to vehicles of interest. If there is a match to a "hot list" license plate, the ALPR system can alert a law enforcement officer in real time. The retention of data from ALPR systems can also help law enforcement track where vehicles have been over time.

ALPR use is more common in larger law enforcement agencies than in smaller agencies. According to the Bureau of Justice Statistics, nearly 90% of sheriffs' offices with 500 or more sworn deputies reported using the technology, and 100% of police departments serving over 1 million residents used ALPRs.

The Fourth Amendment and ALPRs

The Fourth Amendment prohibits "unreasonable searches and seizures" and provides that "no warrants shall issue, but upon probable cause." A "search" for purposes of the Fourth Amendment generally involves (1) government intrusion upon a person's reasonable expectation of privacy, or (2) government trespass upon a constitutionally protected space. If law enforcement activity is not considered a Fourth Amendment "search" or "seizure," the Fourth Amendment inquiry typically comes to an end.

If law enforcement engages in a search or seizure, courts probe whether law enforcement has a warrant, as the Supreme Court has generally established that a search or seizure conducted without a warrant is "presumptively unreasonable." If there is no warrant, courts ask whether an exception to the warrant requirement applies, as the Supreme Court has identified certain "well-delineated" situations in which a warrant is not needed.

Third-Party Doctrine and *Carpenter*

The Supreme Court has held that "a person has no legitimate expectation of privacy in information he voluntarily turns over to third parties." This concept—known as the "third-party doctrine"—reflects a judgment that a person "takes the risk, in revealing his affairs to another, that the information will be conveyed by that person to the Government." In 2018, the Supreme Court recognized a "narrow" limitation to the potentially more expansive scope of the third-party doctrine in *Carpenter v. United States*. That case involved the warrantless search of historical cell-site location information (CSLI)—data recording the location of a cellular device when it connects to "a set of radio antennas called 'cell sites,'" typically mounted on towers or structures. The *Carpenter* Court held that the CSLI was not exempt from Fourth Amendment protection pursuant to the third-party doctrine, even though the CSLI was shared by the defendant with cellular providers in the course of his cell phone use. Given the Court's observation that CSLI is generated automatically and its view that carrying a cell phone is "indispensable to participation in modern society," it rejected the argument

that the defendant's sharing of the CSLI with the providers was voluntary. The Court considered several other factors in concluding that the defendant had a reasonable expectation of privacy in historical CSLI, including its convenience for law enforcement, and the intimacy and retrospective quality of the data. The *Carpenter* Court also focused on the comprehensiveness of historical CSLI, describing it as an "all-encompassing record of the holder's whereabouts."

A number of federal courts and judges have examined law enforcement access to some databases containing ALPR data. They have generally distinguished ALPR data from historical CSLI and concluded that there is no reasonable expectation of privacy in ALPR data (at least as it has been used so far). In one example, a federal district court concluded that law enforcement's retrieval of information from an ALPR database was not a Fourth Amendment search. Despite uncertainty regarding "the precise volume" of ALPR data pertinent to the defendant, that court said it was "clear that the information was not remotely comparable to the 'detailed, encyclopedic' information at issue in *Carpenter*." Another court concluded that ALPR data are less intimate than historic CSLI because vehicles follow their owners into fewer spaces than cell phones do.

Mosaic Theory

Members of the Supreme Court and some lower courts, including the Fourth and D.C. Circuits, have signaled support for the "mosaic theory"—the proposition that prolonged surveillance may give law enforcement a larger and more intimate picture of a person's life and may breach a reasonable expectation of privacy, necessitating a warrant. In *Carpenter*, for example, the Court took note that "127 days [of cell-site data] provides an all-encompassing record of the [cell phone] holder's whereabouts." Although the Court in *United States v. Jones* ruled that the placement of a GPS tracker on a suspect's vehicle violated the Fourth Amendment as a trespass on his personal effects, Justices Alito and Sotomayor wrote separately to highlight concerns beyond a physical intrusion. Justice Alito posited that "the use of longer term GPS monitoring in investigations of most offenses impinges on expectations of privacy," while Justice Sotomayor expressed concern that long-term surveillance may afford law enforcement a "comprehensive record of a person's public movements that reflects a wealth of detail about her familial, political, professional, religious, and sexual associations." As the Seventh Circuit observed, the Supreme Court has not fully adopted the mosaic theory, and lower courts as well as academics continue to debate whether it should be applied in prolonged surveillance cases, including those involving ALPRs.

Plain View and Public Movements on Streets

Some federal courts have applied the "plain view" doctrine to the ALPR context. "Plain view" sometimes refers to an exception to the warrant requirement for seizures in certain circumstances, but here it generally refers to the principle that "an officer's mere observation of an item left in plain view . . . generally involves no Fourth Amendment search," meaning items seen in plain view might not implicate the Fourth Amendment in the first place. The rationale for the doctrine, as explained by the Supreme Court in *Katz v. United States*, is that "[w]hat a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protection." In the context of ALPRs, several courts have held that, pursuant to this doctrine, there is no reasonable expectation of privacy for information on a license plate in plain view. For example, as one federal district court put it, "Where an object sits in the 'plain view' of an officer who is in a place lawfully, the object's owner no longer has a privacy interest in that object." In an unreported opinion, another federal district court, applying related Supreme Court precedent, similarly found that "acquisition of ALPR data was not a search within the meaning of the Fourth Amendment" because "a person traveling in a vehicle on public streets does not have a reasonable expectation of privacy in his movements from place to place."

Scenarios Raising Heightened Concern

Even in upholding warrantless law enforcement access to certain databases containing ALPR information, state and federal courts have cautioned that the technology could run afoul of the Fourth Amendment moving forward, with one court suggesting "that day might well be on the horizon" in light of technological advances. Some potential Fourth Amendment fault lines might involve sustained tracking of a particular defendant through ALPRs, or an increase in the comprehensiveness of ALPR data. Another possible Fourth Amendment issue could involve ALPRs used in conjunction with other surveillance tools. For example, in an *en banc* opinion, the Fourth Circuit concluded that *Carpenter* prohibited the warrantless use of aerial surveillance to record an enormous swath of Baltimore over 12 hours daily. In passing, the court expressed concern that the aerial surveillance could be enhanced with other tools, including ALPRs, "enabl[ing] police to glean insights from the whole of individuals' movements."

Congressional Considerations

Some federal courts have observed that there could be a legislative role in establishing privacy protections above and beyond what the Fourth Amendment may require in the digital space broadly, and with respect to ALPRs specifically. For example, policymakers could legislate directly on federal law enforcement agencies' ability to utilize certain technologies and specify circumstances under which federal law enforcement may use these tools. They could also direct federal departments and agencies to develop or rely on established guidelines surrounding the technologies, require them to use technology that meets specified standards, or conduct broad oversight of federal law enforcement agencies' use of technology such as ALPRs. Congress could also influence state, local, and tribal law enforcement agencies' use of ALPRs through the provision or withholding of grant funding. In light of the developing Fourth Amendment caselaw, Congress may also leave resolution of the legality of ALPR use to the courts. More information on ALPRs may be found in CRS Report R48160, *Law Enforcement and Technology: Use of Automated License Plate Readers*.

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