ouid recall is as: 31

nlance crash: Two heir patient died ehicle collided railer Thursday, Bi

### column: al worth risk

next few weeks, vill be given the ual contract in achise history, **C**1

### └ dance group : members

ole Giwayen Mall circle to host a itival, **D1** 



is great deal (udzu.com/deal: moval of polish & deep cleaning of wood floors!

nandakan kan kecaman

Puzzles D13 Television D13 The Vent B2

, VOL. 65, NO. 158 DY INK ON RECYCLED PAPER



tacility to lock up more violent criminals.

He also accused some judges there of being too lenient with repeat offenders.

In the past month, Reed has unleashed a barrage of vitriol at the county unprecedented for an Atlanta leader.

"A responsible government would have at least come up with a proposal to build a facility father than releasing violent criminals back into the

John Eaves said the county has solved its jail overcrowding problem. And while he acknowledged that some judges have failed to revoke the probation of repeat offenders, the county is addressing that issue, he said.

Fulton County Superior Court Chief Judge Cynthia Wright issued a response to

Fulton continued on A8

covered the difficulties Fulton County has faced incomplying with a federal consent order to improve conditions at the county's jail. Find recent coverage — including the problems with locks at the jail and updates on how the county and feds are dealing with dilemmas at the jail — at our premium website for subscribers, MyAJC.com.

vice

Whether they are using smartphones to manage their lives or streaming video, people and businesses are using up the available capacity. That can lead to slower response speeds, dropped calls and dissatisfied customers.

"You have to build additional infrastructure to deal

AT&T Jobs continued on A18

JUVENILE CORRECTIONS

## Sex survey troubling for Ga. juvenile jails

Victimization rates at 4 state youth prisons among highest in U.S.

By Rhonda Cook rcook@ajc.com and Steve Visser sylsser@ajc.com

Four Georgia lockups for juvenile offenders are among the U.S. facilities with the most instances of inmates being victimized sexually, according to a federal report released Thursday.

A regional youth detention center in Paulding County led the nation with 32.1 percent of the teenagers surveyed anonymously last year reporting they were victimized sexually by either staff or other juveniles. That was more than three times the national rate

#### @ajc.com

Find the full survey results on the juvenile justice facilities, as well as our reports about Georgia's work on its juvenile justice system. Get news where and when you want it: from your computer, tablet or smartphone at MyAJC.com.

of 9.5 percent.

Also included in the list of the 13 U.S. facilities with the highest rates of sexual victimization were the Eastman Youth Development Campus in Dodge County, the Augusta YDC in Richmond County and the Sumter YDC in Americus.

Researchers found that 15.8 percent of the 497 juveniles in Georgia's criminal justice system who were surveyed had had a sexual encounter with a staff member, which is a felony

Jall survey continued on A8

YOUR COMMUTE

## Could drones help ease your commute?

Georgia Tech studying peaceful uses such as real-time traffic cams.

By Kelly Yamanouchi kyamanouchi@ajc.com

In Afghanistan, drones can deliver death from the skies. In Atlanta, their civilian cousins could deliver traffic conditions on the highways.

While the use of weaponized drones for lethal military strikes is generating controversy, researchers at Georgia Tech are studying the potential for more peaceful uses of unmanned aerial vehicles. That includes the potential use of drones to monitor I-285 and other congested highways for backups or help with accident investigations to clear roads faster.

Not that the civilian use of

### TECHNOLOGY & YOU

The Atlanta Journal-Constitution is committed to showing how technology affects our lives. From the "connected" car and "digital" home to today's story on how drones could be used in battling traffic congestion.

drones doesn't come with its own challenges. The Federal Aviation Administration is currently working on how to safely integrate unmanned aircraft into the nation's airspace by 2015. Debate also swirls around their potential impact on people's privacy without any resolution in sight.

The Tech study is part of a yearlong project exploring how drones might help the

Drone study continued on A12

# Some have privacy concerns

### **Drone study**

continued from A1

Georgia Department of Transportation with its day-to-day mission, even though widespread use of them is still years away. GDOT is funding the \$75,000 study with a combination of federal research funds and state funds.

"We can already see so many applications that would make things so much better for all of us," said Georgia Tech assistant professor Javier Irizarry, a lead researcher in the study."

Atlanta traffic congestion is the seventh-worst in the nation, according to the Texas A&M Transportation Institute's Urban Mobility report.

Irizarry thinks drones can improve the accuracy and timeliness of GDOT's online Navigator map of highway congestion. Existing stationary cameras have a limited field of vision, he said, and sometimes "traffic managers can see backup, but they cannot see what the cause is."

On the Navigator map or on dynamic highway signs, "that data could be more precise.... It could be more real-time."

Georgene Geary, a GDOT research engineer, said she hopes drones might also be able to help with clearing accidents faster to reduce backups.

The study will also explore how they could be used in other GDOT areas ranging from construction to airports.

Geary hopes drones might

help with bridge inspections.
Workers today get into "snoop-

ing, are interviewing GDOT employees and plan to do a costbenefit analysis of drone usage at GDOT.

Other states such as Utah have done different tests of the aircraft for highway surveying and other uses.

Plans are to share the results of the Georgia Tech study with other state transportation departments, "so it may end up having influence beyond Georgia as well," Johnson said.

The Association for Unmanned Vehicle Systems International estimates the unmanned aircraft industry will create more than 70,000 new jobs in the first three years after the FAA completes its guidelines using drones in U.S. airspace in 2015.

"It's coming – it's not a question of if, it's a question of when," said Steve Justice, director of Georgia's Center of Innovation for Aerospace.

The FAA says unmanned aircraft systems can come in "a variety of shapes and sizes, and serve diverse purposes." The aircraft can be "smaller than a radio-controlled model airplane" or have a wingspan the size of a Boeing 737, the agency said.

Justice thinks many of the drones will probably fly at low altitudes – perhaps 300 to 400 feet – to inspect things such as crops, roadways and construction projects, and will be relatively small.

"Most people would not even notice that they're there," Justice said.

The FAA plans to propose procedures, policies and standards for users of small unmanned aircraft – defined as under 55 pounds – later this year.

Meanwhile, Georgia is competing to be selected as one of six test sites for unmanned aircraft systems. An FAA decision is expected by the end of the not fair."

· Bob Goodman, an activist with the Georgia Peace and Justice Coalition, said he understands that perspective but added, "the history of science is that you never know how discoveries are going to be used."

Another issue that could loom even larger is the potential for invasion of privacy.

Goodman, whose group led an anti-drone rally late last month at the International Conference on Unmanned Aircraft Systems in Atlanta, is concerned that drones could be used by law enforcement for "spying and surveillance on the American public."

Unmanned aerial vehicle researchers counter that privacy issues exist whether aircraft are manned or unmanned. They also say the public is already being monitored by cameras posted all over — including along metro Atlanta highways.

"It's a problem to connect important discussions about privacy to whether it's an aircraft with a person in it or not," Johnson said.

But Goodman thinks "it's much easier" to spy on people with unmanned aircraft because they could be quieter, smaller and less noticeable.

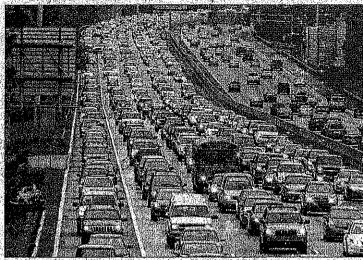
Amie Stepanovich, director of the Washington-based Electronic Privacy Information Center's domestic surveillance project, is concerned that traffic surveillance technology could be used to track people.

"We need to prohibit the broad and untargeted surveillance of individuals," she said.

At the moment, how privacy concerns will be addressed in the case of drones has not been determined.

As GDOT's study proceeds, Geary said if the use of drones is feasible, "we may go through another phase and actually test it out, do a pilot." She envisions

#### HOW DRONES CAN HELP



Drones can improve the accuracy and timeliness in the state's congestion reports because existing stationary cameras have a limited field of vision. JOHN SPINK / JSPINK@AJC.COM.



The DOT alert signs, also known as dynamic highway signs, can become more timely and accurate with the use of drones patrolling the highway system. BOB ANDRES // BANDRES @AJC.COM



applications that would make things so much better for all of us," said Georgia Tech assistant professor Javier Irizarry, a lead researcher in the study.

Atlanta traffic congestion is the seventh-worst in the nation. according to the Texas A&M Transportation Institute's Urban Mobility report.

Irizarry thinks drones can improve the accuracy and timeliness of GDOT's online Navigator map of highway congestion. Existing stationary cameras have a limited field of vision. he said, and sometimes "traffic managers can see backup, but they cannot see what the cause is."

On the Navigator map or on dynamic highway signs, "that data could be more precise. ... It could be more real-time."

Georgene Geary, a GDOT research engineer, said she hopes drones might also be able to help with clearing accidents faster to reduce backups.

The study will also explore how they could be used in other GDOT areas ranging from construction to airports.

Geary hopes drones might help with bridge inspections. Workers today get into "snooper trucks" that hang over the side of the bridge to inspect the underside of tall bridges. But an unmanned aircraft might be able to do the job more quickly, safely and at lower expense. she said.

Irizarry and his partner in the study, Eric Johnson, an associate professor of avionics integration at Georgia Tech's Schod/of Aerospace Engineer tion, which in my view is really about it."

space in 2015.

"It's coming – it's not a question of if, it's a question of when," said Steve Justice, director of Georgia's Center of Innovation for Aerospace.

The FAA says unmanned aircraft systems can come in "a variety of shapes and sizes, and serve diverse purposes." The aircraft can be "smaller than a radio-controlled model airplane" or have a wingspan the size of a Boeing 737, the agencv said.

Justice thinks many of the drones will probably fly at low altitudes - perhaps 300 to 400 feet - to inspect things such as crops, roadways and construction projects, and will be relatively small.

"Most people would not even notice that they're there," Justice said.

The FAA plans to propose procedures, policies and standards for users of small unmanned aircraft - defined as under 55 pounds - later this vear.

Meanwhile, Georgia is competing to be selected as one of six test sites for unmanned aircraft systems. An FAA decision is expected by the end of the year. A test site could be used to test potential capabilities of the drones for GDOT.

With the growing controversy over weaponized military drones, Johnson said he worries that uses of unmanned aircraft for safety and other civilian purposes "may be slowed" down or viewed in a negative light because of that connec-

searchers counter that privacy issues exist whether aircraft are manned or unmanned. They also say the public is already being monitored by cameras posted all over - including along metro Atlanta highways.

"It's a problem to connect important discussions about privacy to whether it's an aircraft with a person in it or not," Johnson said.

But Goodman thinks "it's much easier" to spy on people with unmanned aircraft because they could be quieter. smaller and less noticeable.

Amie Stepanovich, director of the Washington-based Electronic Privacy Information Center's domestic surveillance project, is concerned that traffic surveillance technology could be used to track people.

"We need to prohibit the broad and untargeted surveillance of individuals," she said.

At the moment, how privacy concerns will be addressed in the case of drones has not been determined.

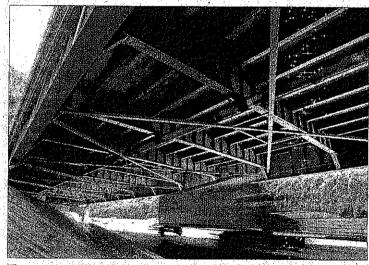
As GDOT's study proceeds, Geary said if the use of drones is feasible, "we may go through another phase and actually test it out, do a pilot." She envisions GDOT working with a consultant to use the aircraft, rather than the department managing its own fleet.

The reaction of GDOT employees to the possibility of using drones in their jobs has varied, Geary said. But by studying the issue before the widespread use of the aircraft comes, "that gives people time to think

Drones can improve the accuracy and timeliness in the state's congestion reports because existing stationary cameras have a limited field of vision. JOHN SPINK / JSPINK@AJC.COM.



The DOT alert signs, also known as dynamic highway signs, can become more timely and accurate with the use of drones patrolling the highway system. BOB ANDRES / BANDRES @AJC COM



The unmanned aircraft might even be able to help conduct bridge Inspections. JASON GETZ / JGETZ@AJC.COM