



## How Close Is Skynet AI? Too Close!

Mimicking Terminator's science fiction AI called Skynet, GEOINT's Sentient system learns on its own and autonomously points diverse sensor/surveillance systems to get what it wants and in real-time.

Deputy Director of the National Reconnaissance office says that "Sentient catalogs normal patterns, detects anomalies, and helps forecast and model adversaries' potential courses of action... Sentient is a thinking system."

While this is amazing technology for the battlefield, the military is currently turning it on American soil in conjunction with various law enforcement agencies, including the Department of Homeland Security. If not stopped, this will lead to a total Scientific Dictatorship, aka Technocracy. □ TN Editor

At the final session of the 2019 Space Symposium in Colorado Springs, attendees straggled into a giant ballroom to listen to an Air Force official and a National Geospatial-Intelligence Agency (NGA) executive discuss, as the panel title put it, "Enterprise Disruption." The presentation stayed

as vague as the title until a direct question from the audience seemed to make the panelists squirm.

Just how good, the person wondered, had the military and intelligence communities' algorithms gotten at interpreting data and taking action based on that analysis? They pointed out that the commercial satellite industry has software that can tally shipping containers on cargo ships and cars in parking lots soon after their pictures are snapped in space. "When will the Department of Defense have real-time, automated, global order of battle?" they asked.

"That's a great question," said Chirag Parikh, director of the NGA's Office of Sciences and Methodologies. "And there's a lot of really good classified answers."

He paused and shifted in his seat. "What's the next question?" he asked, smiling. But he continued talking, describing how "geospatial intelligence" no longer simply means pictures from satellites. It means anything with a timestamp and a location stamp, and the attempt to integrate all that sundry data.

Then, Parikh actually answered this question: When would that translate to near-instantaneous understanding and strategy development?

"If not now," he said, "very soon."

Parikh didn't mention any particular programs that might help enable this kind of autonomous, real-time interpretation. But an initiative called Sentient has relevant capabilities. A product of the National Reconnaissance Office (NRO), Sentient is (or at least aims to be) an [omnivorous analysis tool](#), capable of devouring data of all sorts, making sense of the past and present, anticipating the future, and pointing satellites toward what it determines will be the most *interesting* parts of that future. That, ideally, makes things simpler downstream for human analysts at other organizations, like the NGA, with which the satellite-centric NRO partners.

Until now, Sentient has been treated as a government secret, except for vague allusions in a few speeches and presentations. But [recently](#)

[released documents](#) — many formerly classified secret or top secret — reveal new details about the program’s goals, progress, and reach.

Research related to Sentient has been going on since at least October 2010, when the agency posted [a request](#) for Sentient Enterprise white papers. [A presentation](#) says the program achieved its first R&D milestone in 2013, but details about what that milestone actually was remain redacted. (Deputy director of NRO’s Office of Public Affairs Karen Furgerson declined to comment on this timing in an email to *The Verge*.) A 2016 House Armed Services Committee [hearing](#) on national security space included a quick summary of this data-driven brain, but public meetings haven’t mentioned it since. In 2018, a presentation [posted online](#) claimed Sentient would go live that year, although Furgerson told *The Verge* it was currently under development.

The NRO has not said much about Sentient publicly because it is a classified program,” says Furgerson in an email, “and NRO rarely appears before Congress in open hearings.”

The agency has been developing this artificial brain for years, but details available to the public remain scarce. “It ingests high volumes of data and processes it,” says Furgerson. “Sentient catalogs normal patterns, detects anomalies, and helps forecast and model adversaries’ potential courses of action.” The NRO did not provide examples of patterns or anomalies, but one could imagine that things like “not moving a missile” versus “moving a missile” might be on the list. Those forecasts in hand, Sentient could turn satellites’ sensors to the right place at the right time to catch ill will (or whatever else it wants to see) in action. “Sentient is a thinking system,” says Furgerson.

It’s not all dystopian: the documents released by the NRO also imply that Sentient can make satellites more efficient and productive. It could also [free up](#) humans to focus on deep analysis rather than tedious needle-finding. But it could also contain unquestioned biases, come to dubious conclusions, and raise civil liberties concerns. Because of its secretive nature, we don’t know much about those potential problems.

“The NRO’s and the Intelligence Community’s standard practice is to

NOT disclose sensitive sources and methods, as such disclosure introduces high risk of adversary nations' countering them," says Furgerson. "Such loss harms our nation and its allies; it decreases U.S. information advantage and national security. For those reasons, details about Sentient remain classified and what we can say about it is limited."

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## **Police Use License Plate Readers To 'Grid' Neighborhoods**

Chances are your city is already hoovering up license plate images on every street, but there are few regulations to prevent it. Any city council

could stop this unConstitutional practice cold, if they would dare to make a protest. □ TN Editor

Every shift in Chandler, police officers in cars equipped with special cameras can be seen driving up and down every street in a neighborhood, gathering data on every vehicle in the area.

The cameras, known as automated license plate readers, or ALPRs, scan license plates of nearby cars, capturing images not only of the license plate number, but also recording where the vehicle is located and the time of day, among other things.

As part of the training for the ALPR systems, Chandler officers are taught to “grid” neighborhoods during their downtime – systematically driving up and down every street in an area, indiscriminately scooping up information on vehicles – not because of any suspected criminal activity, but because the information might be useful in future criminal investigations.

The practice is worrisome for civil liberties advocates, who view the sweeping data collection as too expansive.

“Historically, police officers could go out and look for license plate numbers, walk or drive up and down the streets in the whole neighborhood to do that, but until you had this technologies, there were physical limitations to that,” said Jared Keenan, Criminal Justice Staff Attorney at ACLU of Arizona. “You had to have officers go out and do it, and it naturally limited how much information they could gather.”

Automated readers, on the other hand, can gather [thousands of records a second](#), which Keenan says is scary.

Chandler Police Department’s Commander Ed Upshaw said that ALPRs do not capture individuals, and that collecting data on what cars are where at specific times can create investigative leads.

“If your vehicle is parked in a public place or visible from a publicly accessible place, it can be recorded by anyone. Is there a reason a YouTuber can record but police cannot?” he told the *Mirror* in a written

statement. Chandler Police Department officials would not agree to an interview.

But critics say there is a difference.

“When the government is indiscriminately gathering massive amounts of data like this, it can provide very intimate insight into people’s lives,” Keenan said.

For instance, law enforcement can use ALPR data to determine the places people frequent, with whom they associate, what doctors they go to and what religious services they attend.

Additionally, Keenan said, when these types of technologies are deployed without reasonable suspicion, implicit and explicit bias can mean that police deploy this technology more heavily in poor neighborhoods and communities of color. For example, police could grid low-income or minority neighborhoods more often, which could lead to over-policing of those neighborhoods—even if there are just as many crimes in rich, white areas.

This has played out in Oakland, where police disproportionately captured ALPR data in low-income communities and communities of color, [according to a week’s worth of 2014 data analyzed by the Electronic Frontier Foundation](#). And in 2016, a [BuzzFeed investigation](#) found that ALPRs in Port Arthur, Texas, were primarily used to track down unpaid traffic citation arrests, leading to the incarceration of mostly black residents.

ALPR devices [are marketed](#) as ways for police to “develop more leads and solve more cases” for a variety of crimes, ranging from murders to kidnappings, and organized crime to terrorism. But some Arizona contracts for automated license plate readers, including those in Mesa and Chandler, were provided through a grant from the Arizona Automobile Theft Authority, because one of the primary uses of ALPR is to identify and recover stolen vehicles. In Chandler, where the first two 3M PIPS LPR systems and Vigilant Solutions subscription came from these grants, police officers were instructed to send one-sentence emails with report numbers and how Vigilant Solutions helped their



investigation, not just for arrests but also for locating stolen vehicles.

The expansion of the license plate reader program and maintenance of the systems in Chandler has come from Federal Justice Assistance Grants, according to Commander Upshaw.

The longer ALPR data is retained, the more likely it is to be misused or [exposed in a data breach](#). While some cities have policies to retain license plate data for only six or 12 months, some police departments don't appear to have retention policies at all. And though police departments with retention schedules all indicated that records are purged automatically, public records indicate that only a single department has ever conducted an audit - and the last one was conducted in 2015.

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# Troubled South Africa Looks To Technocracy For Solutions

South Africa has been destroyed by its solidly Marxist ANC party, and is now looking to Technocracy as seen in Japan, Singapore and China. This again validates Zbigniew Brzezinski's theory that Marxism is a necessary stepping-stone to the final Technocratic state. □ TN Editor

The National Development Plan touts the necessity of building a professional public service and a state capable of playing a transformative and developmental role.

It highlights several challenges that hobble the democratic state, such as unevenness in state capacity, unstable administrative leadership, skills gaps, erosion of accountability and authority, poor organisational design, as well as inappropriate staffing and low staff morale.

One of the ways in which the governing African National Congress (ANC) can address these challenges is by embracing a technocratic model of government. And the ANC must look to the East Asian nations of Japan, Singapore and China for inspiration and guidance. Partly, these countries owe their economic success to strong governments underpinned by technocratic elites and expertise.

Renowned author and global strategist Parag Khanna describes a technocracy as a “government built around expert analysis and long-term planning rather than narrow-minded, short-term populist whims or private interests. It is meritocratic (elevating competent leaders) and utilitarian (seeking the broadest societal benefit). Technocratic leaders are selected more by IQ than by popularity contest. They are extensively educated, trained and experienced professionals, not just pedigreed elites.”

## **Ministries rule, politicians reign**

Japan's bureaucracy played a pivotal role in the country's impressive rise in the post-war period. At the core of the country's development was the role of the Ministry of International Trade and Industry (MITI). MITI



formulated and implemented trade and industrial policies. It provided 'administrative guidance' on a raft of domestic and foreign economic policies including technology, investment, energy and power, modernisation, competition as well as pollution control. MITI's close ties to Japanese industry facilitated a foreign trade policy that complemented its efforts to shore up domestic manufacturing interests.

In his book the late Japanologist Chalmers Johnson chronicled the country's post-war model of governance. He concluded that Japan was "ruled" by powerful, independent, and very competitive government ministries. By contrast, he pointed out that politicians merely "reigned," operating mainly as a "safety valve" in the case of bureaucratic overreach.

Singapore represents the apogee of technocratic rule. Bureaucratic leadership is deeply embedded: public servants are expected to be technically minded, long-term thinkers and with a strong utilitarian streak. Although the role of the founding father Lee Kuan Yew in the city-state's success has been immeasurable, Singapore's progress has also been a product of a system of expert rule, focus on meritocratic talent and long-range thinking. These institutional strengths have contributed to the transformation of the country from a poor backwater into an economic dynamo: an export-oriented manufacturer, a coveted port, a flight hub as well as a financial centre with one of the highest per capita incomes in the world.

As Singaporean Prime Minister Lee Hsien Loong noted, "our system shielded civil servants from political interference, (giving them) the space to work out rational, effective solutions for our problems [so they can] practise public administration in almost laboratory conditions." Singapore's major accomplishment has been to merge the political and expert components of the governing system.

### **Technocrats dominate**

China today is significantly different from what it was during the revolutionary years of Mao Zedong. Whereas Mao and his generation had limited formal education, successive generations of Chinese

leadership have boasted higher education qualifications. Over the past few decades engineers and scientists have dominated Chinese political leadership. Until recently, all but one member of the nine-person (since reduced to seven) Chinese Communist Party Standing Committee – the country’s highest decision-making body – have been engineers, including the current president Xi Jinping and erstwhile presidents Jiang Zemin and Hu Jintao.

Not only do technocrats dominate the top echelons of political office in China, they also permeate all levels of the Chinese government. They include mayors, local and provincial party secretaries, and governors. The technocratic mindset is deeply ingrained in Chinese political culture. Mencius, a loyal disciple of Confucius, once remarked, “Let those who labour with their heads rule those who labour with their hands.”

Japan pioneered technocratic governance, Singapore perfected it and it is in progress in post-Mao China. Despite their distinctive histories and, in the case of Singapore and China, authoritarian development models these countries provide useful lessons for South Africa to emulate. To be sure, technocratic rule is not a panacea for South Africa’s governance problems. And it has its shortcomings, including the fact it is arguably inimical to the country’s political culture; it could erode democratic accountability, thereby create a government for the people without the people.

Even so, it can contribute towards remedying the country’s institutional deficiencies. It can enable policymakers to fulfil the objectives set out in the NDP including depoliticising the public service and making it a career of choice, developing technical and specialist professional skills among public servants, improving relations between national, provincial and local government and bolstering the functioning of state-owned enterprises.

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