

**UPDATE PAPER: Different types of technology  
and data-gathering infrastructure that countries  
use to conduct surveillance**

*The Legal Committee*

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## **Introduction**

In the developed and in parts of the developing world, surveillance societies have started to emerge. Surveillance societies are societies which function, in part, because of the extensive collection, recording, storage, analysis and application of information on individuals and groups in those societies as they go about their lives. Retail loyalty programs, website cookies, national identity schemes, routine health screening and no-fly lists all qualify as surveillance. Each features, in different measure, the routine collection of data about individuals with the specific purpose of governing, regulating, managing or influencing what they do in the future.<sup>1</sup>

## **Country specific cases**

### **1) INDIA**

The Central Monitoring System (CMS) is the premier mass surveillance program] of the Indian Government, which has been in the planning stages since 2008. Its primary goal is to replace the current on-demand availability of analog and digital data from service providers with a “central and direct” access which involves no third party between the captured information and the government authorities. While the system is currently operated by the Centre for Development of Telematics, the unreleased three-stage plan envisages a centralised location (physically and legally) to govern the program. The CMS is primarily operated by Telecom Enforcement and Resource Monitoring Cell (TERM) within the Department of Telecom, which also has a larger mandate of ensuring radiation safety and spectrum compliance.<sup>2</sup>

### **2) AFRICA**

The Africa Infrastructure Country Diagnostic (AICD) has data collection and analysis on the status of the main network infrastructures. The AICD database provides cross-country data on network infrastructure for nine major sectors: air transport, information and communication technologies, irrigation, ports, power, railways, roads, water and sanitation.

The indicators are defined as to cover key areas for policy making: affordability, access, pricing as well as institutional, fiscal and financial aspects. The analysis encompasses public expenditure trends, future investment needs and sector performance reviews. It offers users the opportunity to view AICD results, download documents and materials, search databases and perform customized analysis.<sup>3</sup>

### **3) EUROPE**

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<sup>1</sup> "An Introduction to the Surveillance Society." *The Surveillance Studies Network*. N.p., n.d. Web. 3 July 2017.

<sup>2</sup> The Design & Technology behind India's Surveillance Programmes

<sup>3</sup> (Africa's Infrastructure: National Data | Data)

A rapid transition from radars-only to multiple types of sensors is in progress, including the implementation of dozens of multilateration systems and over 750 Automatic Dependent Surveillance–Broadcast (ADS-B) ground stations in about 25 European States. Data fusion and performance monitoring, supporting multi-sensor surveillance data, are also available. This includes the EUROCONTROL surveillance data processing product, ARTAS (ATM Surveillance Tracker and Server System), as well as performance evaluation and monitoring tools, such as the EUROCONTROL product SASS-C, the Surveillance Analysis Support System for ATC Centres. Integration/rationalisation is also ongoing, driven by ADS-B (e.g. ACAS – Airborne Collision Avoidance System - Hybrid Surveillance on the airborne side and combined Multilateration/ADS-B systems on the ground).<sup>4</sup>

#### 4) BRAZIL

The **Amazon Surveillance System- SIVAM**, is a complex surveillance system used for monitoring Amazônia Legal ("legal Amazon area"). This area includes the Brazilian rainforest, to curb the trafficking of illegal narcotics and to curb illegal logging or burning of the forest. The system uses a mixture of fixed and mobile ground radar, as well as airborne surveillance using the Embraer ERJ 145. The combined platform is called the R-99.

The U.S. military contractor Raytheon, the Brazilian firm ATECH, the Canadian Aerospace company MacDonald Dettwiler (MDA) and Embraer won the tender to build the SIVAM system. Today, the project has delivered its equipment to the government, creating the SIPAM (Amazonian Protection System) and enhancing the Brazilian Airspace Control System.<sup>5</sup>

#### 5) RUSSIA

The main difference between the main method of surveillance in Russia, the System of Operative-Search Measures (SORM) and other monitoring efforts lies in that aforementioned direct connection. The **Federal Security Service** can remotely access all communications and servers in Russian networks without having to request it from ISPs (Internet Service Providers). Other surveillance methods require the cooperation of ISPs, but SORM can access communications and servers remotely. The FSB isn't the only organization that uses SORM. Other users include the Interior Ministry, the Federal Protective Service, the Foreign Intelligence Service, Customs, the Federal Anti-drug Agency, the Federal Prisons Service, and the Main Intelligence Directorate of the General Staff. Mainly, though, the FSB is in charge of SORM.<sup>6</sup>

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<sup>4</sup> "Surveillance Modernisation." Eurocontrol, n.d. Web.

<sup>5</sup> Michel Braudeau, 'Espionage which comes from the sky', 2004 (ISBN 2-07-077049-4).

<sup>6</sup> "Russia's Anti-Hacking & Surveillance System." *Edgy Labs*. N.p., 19 Mar. 2017. Web. 10 July 2017

## 6) THAILAND

Surveillance of the internet and other communication mediums has in the last decade been shown to have progressively greater importance. This can be seen by the 2007 Computer-related Crimes Act (CCA), brought into law by the previous junta; The major application for mass surveillance has been in the form of logging internet use and blocking websites, but there have also been cases where law enforcement has requested cooperation from companies such as the social network company LINE in order to acquire chat transcripts to help them prosecute (non-political) criminal cases.<sup>7</sup>

## 7) NORTH KOREA

North Korea has rolled out mandatory software updates to mobile devices on its network that actively seeks out and deletes illegal foreign media files. On North Korea's own "Red Star" computer operating system, software scans text documents for specific words or phrases deemed unfavorable by the regime and deletes them. By giving citizens new networked technologies like mobile phones and tablets, the government is able to automatically censor unsanctioned content and observe everything citizens are doing on their devices remotely.<sup>8</sup>

## 8) UNITED STATES OF AMERICA

Surveillance is conducted by two main organizations, under the National Security Agency.

### NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY (NGA)

The NGA is responsible for collecting, analyzing and distributing intelligence derived from imagery. According to documents provided by Edward Snowden, the NGA's latest budget request was \$4.9 billion—more than double its funding a decade ago. It is headquartered in Springfield, Virginia.

### NATIONAL RECONNAISSANCE OFFICE (NRO)

The NRO is in charge of developing, deploying and operating reconnaissance satellites. With a budget allocation of \$10.3 billion, it is the third-largest U.S. intelligence agency. Its headquarters are in Chantilly, Virginia.<sup>9</sup>

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<sup>7</sup> "Global Information Society Watch." *GISWatch*. N.p., n.d. Web. 10 July 2017

<sup>8</sup> Pearson, James. "North Korea Uses Sophisticated Tools to Spy on Citizens Digitally - Report." *Reuters*. Thomson Reuters, 01 Mar. 2017. Web. 10 July 2017

<sup>9</sup> "America's Vast Surveillance Infrastructure | #ASX." N.p., 02 July 2015. Web.

## 9) AFGHANISTAN

The dirigible, a white 117-foot-long surveillance balloon called an aerostat by the military, and scores more like it at almost every military base in the country, have become constant features of the skies over Kabul and Kandahar, and anywhere else American troops are concentrated or interested in.<sup>10</sup>

In addition to the dirigible, a company called Stara has created nine additional PGSS back-up systems with wide area surveillance-enabled sensors that are powered through existing renewable energy resources; install electro optical/infrared wide area surveillance on six existing PGSS back-up systems; and install all systems in theater and integrate surveillance data onto PGSS and the Afghan Mission Network/Centrix system.<sup>11</sup>

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<sup>10</sup> Bowley, Graham. "Spy Balloons Become Part of the Afghanistan Landscape, Stirring Unease." *The New York Times*. The New York Times, 12 May 2012. Web.

<sup>11</sup> "Stara Tech to Provide Persistent Ground Surveillance Systems in Afghanistan." *SIGNAL Magazine*. N.p., 16 Jan. 2015. Web.