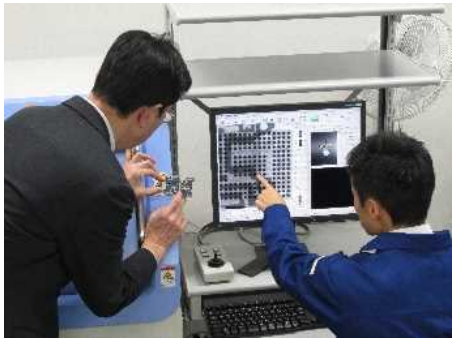
POLICE SCIENCE & INFO-COMMUNICATIONS

1. Police Info-Communications

A. Analysis of Computer Systems and Electro-magnetic Records

(1) Digital Forensics



Analysis of electronic devices at Digital Forensic Center

The High-Tech Crime Technology Division with its Digital Forensic Center was established in the NPA in April 1999, to provide the digital forensic services for criminal investigations. The Digital Forensic Center specializes in conducting advanced digital forensic examinations such as advanced malware analysis or data recovery from damaged hard drives.

Additionally, in April 2004, a High-Tech Crime Technology Section was established in each Prefectural Info-Communications Department. The Section provides each Prefectural Police Headquarters (PPHs) with technical support including assistance for search and seizure, and analysis of electronic devices.

(2) Technical Support to Defend Society from Cyber Attacks

24/7 Monitoring of Malicious Network Activities

As one of the countermeasures against cyber terrorism, the Cyber Forces which are composed of mobile technical squads were organized within the NPA and Regional Police Bureaus (RPBs) in April 2001, and in the Prefectural Info-Communications Departments in May 2013. Together with PPHs, they build relationships with critical infrastructure industries by sharing the information security trends or by responding to incidents in emergencies. Additionally, in order to prevent damage due to cyber espionage activities and to investigate incidents, the Cyber Force Center (CFC) of the NPA, the head of the Cyber Forces, collects and analyzes malware attached to spear-phishing emails and provides analysis to companies with advanced technologies.

In November 2005, the CFC joined the Forum of Incident Response and Security Teams (FIRST), whose aims include promotion of information sharing among its members and the community at large, to enhance collaboration with other Computer Security Incident Response Teams (CSIRT).

B. Infrastructure of Info-Communications

(1) Infrastructure

Infrastructure of the police info-communications consists of multi-channel microwave radio lines maintained by the police, and dedicated lines leased from carriers.

The police have developed various info-communication systems on the basis of its infrastructure, including the telephone system, mailing system, and multimedia databases among others.

(2) Police Radio Systems
The police have pioneered digital mobile radio communications systems.

The main types are:
a. "The Mobile communications system" mainly equipped inside police vehicles
b. "The Police-station-level communications system" operated within the jurisdiction of each police station
c. "The Portable communications system" mainly for the Riot Police Unit
d. "Advanced Infrastructures of Police Info-communications system" composed of smart phones and tablet-type data terminals that use private cellular phone lines

(3) Police Wide Area Network System (P-WAN)
P-WAN is a nationwide independent network system, which enables secured information sharing and promotes efficiency of various police activities.

C. Operational Support
(1) Communications Command Systems


Communication Command Center

Each PPH runs its own Communications Command Center. In response to "Dial 110" calls from citizens, the center swiftly issues dispatch orders to patrol cars and police officers on duty using radio, police telephones and mobile data terminals.

The system consists of the "Dial 110" response, radio dispatch and telephone dispatch desks. With advanced technologies, functions of the dispatch systems have greatly improved. The latest dispatch systems adopt the Car Locator and the Automated Mapping Systems which enable crime scenes to be pinpointed on operation displays. In addition, a phone location display system is now in operation.

(2) Investigation Support System
(a) Criminal Information Management System


Information Processing Center

The Criminal Information Management System stocks a variety of information such as on stolen vehicles and missing persons. Police officers on the street can immediately obtain necessary information through this system.

(b) Automatic Number Plate Recognition System
The police occasionally carry out car inspections in search of crime-related/stolen vehicles. In order to avoid time-consuming inspections leading to traffic jams, the police have developed the Automatic Number Plate Recognition System which reads the numbers on license plates and checks them against the database of stolen/wanted vehicles.

(c) Criminal Investigation Support-Crime Analysis Tool & System (CIS-CATS)
CIS-CATS enables police investigators to analyze factors such as locations of crime scenes, the time period of crime occurrences, and characteristics of suspects in a comprehensive way by using a wide range of information such as crime statistics, modus operandi and photographs of suspects.

(3) Driver's License Data Management System
The Driver's License Data Management System stocks data on drivers' licenses, issued by each Prefectural Public Safety Commission (PPSC).
This system enables management and provision of all traffic violations data in order to facilitate administrative dispositions including suspension and revocation of drivers' licenses.

(4) Mobile Police Communications Squads
In cases of natural disasters, serious accidents, and crimes, the Mobile Police Communications Squads assigned to the RPBs and Prefectural Info-Communications Departments arrange, if necessary, temporary radio communications networks and provide real-time video images from the sites for the respective PPHs. This facilitates command and control of the PPHs and enables them to better grasp the situations.

(5) International Operations
(a) Info-Communications System of INTERPOL
The NPA plays a part in the INTERPOL network as the National Central Bureau of Japan. INTERPOL encourages member countries to promote the effective use of its 'I-24/7' network, which provides the means to share information on criminals and criminal activities. The NPA has been connected to the 'I-24/7' network since 2003.

(b) International Mobile Police Communications Squad

International Mobile Police Communications Squad

The NPA organizes the International Mobile Police Communications Squad to secure police communications at overseas disaster sites. In 2017, it was dispatched to an earthquake-stricken area in Mexico, as part of the Japan Disaster Relief Team.

(c) Introducing Advanced Technologies
The NPA established the Advanced Technology Planning Office in April 2019 to make police activities smarter by introducing advanced technologies such as AI. The Office is conducting practical experiments to assess the efficiency of test implementations of the technologies.