

3. Intelligent Transport System (ITS) Developed by the Japanese Police

The NPA is promoting research and development of Universal Traffic Management Systems (UTMS). UTMS, designed to utilize advanced information and communication technologies, ensure road traffic safety and smooth traffic flows, create harmony between road traffic and the environment, and thereby contribute to enhancement of the public welfare.

Principal subsystems of UTMS are as follows:

(1) Advanced Mobile Information Systems (AMIS)

AMIS generate information on congestion and travel time, based on traffic information collected at the Traffic Control Center, and provide the information to drivers via the Vehicle Information and Communication System (VICS). The information is also provided by roadside traffic information display boards as well as through radio.

(2) Traffic Signal Prediction Systems (TSPS)

TSPS encourage safe and eco-friendly driving by providing drivers with driving support information based on information about the colors of traffic lights.

(3) Driving Safety Support Systems (DSSS)

DSSS grasp traffic situations of areas less visible from the driver's position by using roadside sensors and alert drivers via on-board units and thereby prevent traffic accidents which could be caused by careless oversight such as inattentive driving.

(4) Public Transportation Priority Systems (PTPS)

PTPS ensure the scheduled operation of buses and other public transport to encourage the use of public transport. Based on vehicle ID information received from on-board units in the buses via infrared beacons, the Traffic Control Center extends the durations of green lights or shortens red lights so that buses can pass through the intersections smoothly.

(5) Pedestrian Information and Communication Systems (PICS)

PICS facilitate safe crossing of intersections for pedestrians including the elderly and people with disabilities by providing voice information of the names of intersections and the status of pedestrian signals.

(6) Fast Emergency Vehicle Preemption Systems (FAST)

FAST are intended to assist emergency vehicles to reach accident sites as quickly as possible and prevent secondary accidents which could be caused by emergency vehicles. Based on the information received from the emergency vehicles via infrared beacons, the Traffic Control Center extends the durations of green lights or shortens red lights so that emergency vehicles can arrive at the scenes of accidents faster.

(7) Enhancement of Mobile Convenience

The police have adopted measures to enhance convenience of the private sector utilizing public traffic information. Each prefectural police force has its own system to provide online, real-time traffic information gathered from approximately 210,000 vehicle detectors and approximately 56,000 infrared beacons throughout the roads in Japan. Through these systems, the police have provided the private sector with traffic information which can be used by the public including drivers via in-vehicle navigation systems, the internet, smartphones and other channels.