



Col. Kriste Kibbey Etue Director, Michigan State Police  
Lansing, MI

Sharing Information  
Enhancing Preparedness  
Strengthening Homeland Security

**Lessons Learned  
Information Sharing**

## INNOVATIVE PRACTICE

### Unmanned Aircraft System

May 16, 2016

#### SUMMARY

Unmanned Aircraft System (UAS) technology enhances Michigan's abilities to conduct real-time assessments during an incident and collect detailed post-incident information for recovery activities. The Michigan State Police (MSP) purchased the UAS with \$162,000 in Homeland Security Grant Program funds and have used the UAS during real-world incidents, exercises, and trainings. Working with the American Civil Liberties Union (ACLU) to vet Federal Aviation Administration (FAA) operational requirements has allowed MSP to promote public buy-in and set itself apart as a national thought leader.

#### DESCRIPTION

Quickly deployable and mobile, the UAS offers unique operational advantages for response and recovery activities. Through the UAS, MSP has enhanced survey and damage assessment capabilities during and after incidents—such as fires, crime scenes, and traffic crash incidents. System cameras capture detailed images at low elevations using a high-definition zoom, infrared, or Secure Digital camera. Additionally, the system is cost effective; the UAS operates at a lower cost-per-flight-hour rate than a helicopter. The system also allows the helicopter to simultaneously perform other missions.



The UAS enhances MSP's response and recovery capabilities by capturing images of an incident at varying elevations (MSP)

In 2015, MSP deployed the UAS in 40 incidents. Following a tornado in Portland, Michigan, responders used images captured by the UAS to assess property damage. Responders in Ottawa County were supplied real-time information from the UAS regarding the scope and location of a fire. The UAS was also used during the Operation Northern Exposure full-scale exercise. Live video streaming provided by the system enhanced situational awareness for Federal, state, and local participants during the exercise, which was based upon a nuclear explosion scenario.

Michigan was the first police agency in the nation to obtain statewide authorization from the FAA to fly a UAS in support of public safety efforts. To promote community buy-in, the state worked with key stakeholders and vetted formal UAS policies through the ACLU. Since 2015, MSP has shared best practices with over 45 different agencies throughout the country.

#### REFERENCES

MSP, Email correspondence with the FEMA National Preparedness Assessment Division, January 5, 2016.

**DISCLAIMER** *The Lessons Learned Information Sharing Program is a Department of Homeland Security/Federal Emergency Management Agency's resource for lessons learned and innovative ideas for the emergency management and homeland security communities. The content of the documents is for informational purposes only, without warranty, endorsement, or guarantee of any kind, and does not represent the official positions of the Department of Homeland Security. For more information please email [FEMA-LessonsLearned@fema.dhs.gov](mailto:FEMA-LessonsLearned@fema.dhs.gov).*