



With more than 300,000 miles of pipelines spread across the U.S., this infrastructure is constantly monitored to ensure its integrity. Pipelines are checked by manned aircraft flyovers, on-the-ground observations by foot or vehicle, and through fiber-optic early warning systems.



OVER 300,000 MILES OF OIL & NATURAL GAS TRANSMISSION PIPELINES IN THE UNITED STATES

EFFICIENT, EFFECTIVE PIPELINE INSPECTION

Unmanned aerial vehicles (UAV) – commonly known as drones – and unmanned aerial systems (UAS) equipped with cameras and sensors such as gas detectors, infrared or laser pulse, are proving to be beneficial in the energy sector.

Using special cameras and sensors, operators fly and hover drones at low altitudes over the pipelines, relaying information about the pipe's condition to the assessor. This allows operators to locate, diagnose and address potential problems quickly.

The highly sensitive optical sensors available with drones can help monitor emissions over critical sites and large areas that are otherwise difficult to cover. They make surveying and proactively addressing issues manageable.

With special approvals from the FAA, drones are among the digital innovation tools that are being tested by producers as federal regulators devise rules governing their commercial use.

In any remote location, drones could offer a safe and efficient means of environmental monitoring. Instead of sending out a crew to inspect a pipeline in remote areas, producers will increasingly turn to drones.

OTHER APPLICATIONS

Drones have also helped the OERB and Oklahoma's oil and natural gas industry locate remote orphaned and abandoned well sites that are in need of restoration. In the OERB's recent pilot test, six new sites were identified using this technology.





LEARN MORE

To learn more about drone-based monitoring and how oil and natural gas producers use it to protect the air we breathe, please visit the following sources:

Use of drones brings added safety to oil and gas industry.

http://www.gomcmag.com/editorial/2015/06/use_of_drones_brings_added_safety_to_oil_and_gas_industry

Using drones to monitor hydraulic fracturing operations.

<https://www.asme.org/engineering-topics/articles/energy/methanesniffing-drones-in-fracturing-operations>

Drone use in the oil and gas sector.

<http://www.businessinsider.com/there-is-a-new-megatrend-in-the-oil-and-gas-industry-2015-7>