

From the Desk of the President

Sentinel 3 Leak Indication Sensor

The development of the Sentinel 3 leak indication sensor is completed. The new unique patented state-of-the-art sensor is in use and the results are exceeding expectations.

This successful development separates New Era Technology, Inc. from all others in this industry.

New Era provides aerial surveillance and leak indication services to the energy transmission industry, and is the only company to offer multiple remote indication technologies on different aerial platforms with both fixed and rotor wing aircraft depending on the client systems to offer the most efficient and lost cost solutions.

New Era has developed flight optimization software that calculates the most efficient and lowest cost flight plans for a survey based on the type of aircraft (fixed or rotor wing), individual performance specifications, client system, geographic location, etc.

New Era has also developed their own navigation system which has special features that no other commercial system offers. Our system utilizes INS/GPS to display in real-time exactly where the instrument is scanning on the surface relative to the pipeline system.

Other remote sensing systems rely upon GPS data only and are not capable of displaying the effect that yaw, pitch, and roll of the aerial platform has on survey accuracy.

All of the New Era systems are designed, developed and integrated hardware/software systems specifically for the remote aerial patrol and leak indication for the energy transmission industry. Other companies utilize 3rd party hardware, equipment or software that are not designed to be integrated together. The fact that New Era has all the expertise for the design, development, and integration within the company provides client with a strategic advantage as conditions change within the industry as New Era can quickly adapt to those changes.

The advantages of what I have mentioned are many, but to name a few:

Safety is always first and foremost. The streamlining of the reporting data collection reduces the workload on the flight crew and allows them to focus on what is going on outside the cockpit. The pilots can get very busy with communicating with ATC, watching for other aircraft, drones and obstacles such as towers and birds. Flying at a safe altitude (1,000 feet AGL) for leak indications allows a capture of 200 feet on the ground.

The aircraft are equipped with communication downlinks (Cellular or Satellite) that allow real-time reporting when necessary.

As previously mentioned our route optimization, moving map navigation and reporting have seen the amount of time required to fly a client's lines have been reduced dramatically. This turns into real savings for our clients.

All information from flights is transformed into the formats that our clients desire so that can easily put into their individual systems.

Our inhouse resources can customize data presentation to be suited to an individual client's need.

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From the Customer Solutions Group

Any survey is only going to be as good as the process.

The New Era Process to Survey Execution

Planning

The first step in the route planning process is obtaining the shape file from the client and using New Era's SANDS flight optimization program to determine the most economical flight plan to complete the survey at the lowest cost and in the least amount of time.

A communication protocol and personnel listing by district/location will be created to assure that proper notification is done during the survey.

Establish the proper method of reporting the final results relative to comply with client format and to whom they should be sent will be established.

Depending upon the deliverables New Era can stage the release of the deliverables to not overwhelm the client with data, keep a steady stream of data going as it is finished being processed.

Overall project plan submitted to the client prior to the survey.

Communication

Establish the communication protocol mentioned under planning to ensure the reduction in time to report leaks and threats.

Client contacts provide what data is to be made available to the client via email or other preferred methods.

New Era internal tracking and reporting on the progress of deliverables to ensure on time delivery and of the highest quality.

Notification prior to and upon the completion of a survey taking place at each district

A "support hotline" for any client employees who have any questions on accessing the TSSP reporting or any other questions regarding accessing data

Post Survey

A follow up mechanism will be put in place at certain time after the completion of the survey if there are issues, complaints, etc. to be corrected for the current survey or changed for future surveys.

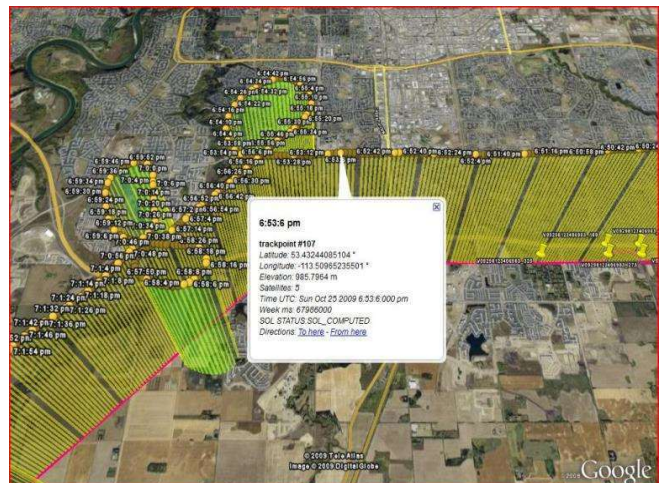
From the Science Laboratory

New Era employs our patented Sentinel Sensor for locating leak indications on natural gas transmission lines and gathering systems. This system coupled with SANDS navigation offers significant benefits over other methods of leak indication.

The Sentinel Sensor:

- Does not rely on temperature of gas or vapors
- Does not have to pass through the gas or vapors
- Output data includes plume images
- Provides an accurate location of the plume
- Accurate flight path data with position, altitude and attitude data
- Geo-referenced, time-stamped and correlated visible camera images

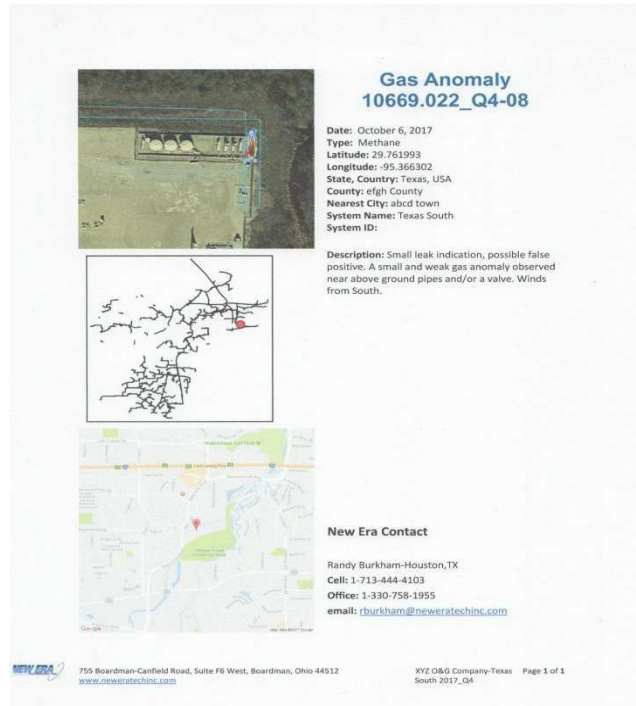
Record of Survey and Flight Path



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Sample Reports

Leak Indication Report



Gas Anomaly
10669.022_Q4-08

Date: October 6, 2017
Type: Methane
Latitude: 29.761993
Longitude: -95.366302
State, Country: Texas, USA
County: eflg County
Nearest City: abcd town
System Name: Texas South
System ID:

Description: Small leak indication, possible false positive. A small and weak gas anomaly observed near above ground pipes and/or a valve. Winds from South.

New Era Contact

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XYZ O&G Company-Texas
South 2017_Q4 Page 1 of 1

Gas Leak on Right of Way



Other Services

New Era offers a number of other services to the industry such as:

- Canopy Studies
- Structure Identification
- Change Detection
- Emergency Survey

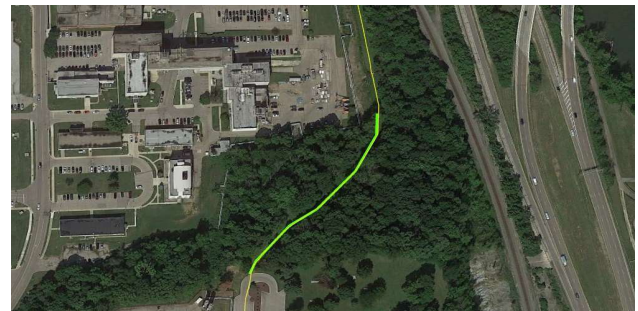
The following are just some samples from reports that we generate for clients.

Canopy Studies

One area of compliance that is sometimes overlooked is the clearing of canopy on the right of way. With canopy obstruction incursions and leak indications are likely to be misses, not because of a lack diligence by the aerial patrol company, but because of the obstruction of trees and other vegetation.

New Era canopy studies provide complete information on where canopy attention is required. Both kml's and spreadsheets are provided identifying the exact locations.

The following is a sample of the information supplied to the client.



Structure Identification

Another important task is the structure identification and classification. We use the following color code:

- RED - 660' Buffer,
- YELLOW - Pipeline,
- BLUE OUTLINE - OCA
- GREEN (FILLED) - New Identified Structures
- BLUE (FILLED) - Existing Structures (From Previous Study),
- ORANGE (FILLED) - Commercial
- RED (FILLED) - Apartments



NEW ERA AIRCRAFT

The current fleet of aircraft for New Era consists of Cessna 206, Cessna 182, Cessna 172 and Symphony 160. The company is looking to add two more Symphony 160 aircraft to the fleet later this year.



Cessna 206



Symphony 160

With the expected success of the new sensor in 2021 New Era will be adding aviation partners to accommodate the expected growth and demand for the leak indication that will come in the United States and Canada.



Helicopter option where it is most economical for the client.

NEW ERA TECHNOLOGY, INC.



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AIRCRAFT LOCATIONS

North Lima, Ohio (4G4)

Salisbury, North Carolina (KRUQ)

Houston, Texas (KTME)

FUTURE NEWSLETTERS

Issue Dates:

June 2021

September 2021

December 2021

FUTURE CONTENT

More details on Sentinel 3

Details on navigation system

Business Updates

Technology Updates