NEW ERA TECHNOLOGY, INC.

The Complete Aerial Surveying, Remote Sensing, and Reporting Solution for the Oil, Gas, and Product Energy Sector

Volume 1, Issue 1 **June 2019**

From the Desk of the President

About Our Company

In 2007 New Era Technology, Inc. (NETI) was a new corporation on the aviation landscape working on the development of a first-generation aerial leak indication instrument with a scientific development group who had a land-based unit. The development was successful and New Era expanded its business into aerial leak indication and visual/video aerial surveillance. In 2017, New Era acquired a proven second-generation technology to further enhance its outreach from transmission lines into gathering systems. With both fixed wing and helicopter platforms New Era was now positioned to extend its offerings to all areas of the natural gas and crude supply systems. In 2018, New Era developed capability to design, program and build the necessary systems to support their fugitive emissions survey business base. This includes navigation, video and leak indication system components. With an eye on the full oil & gas industry equation (Exploration, Production, Gathering, Pipeline Transmission, Storage, Processing, and Distribution) in 2019, the company set forth on an ambitious project to develop the next generation of methane/ethane leak indication instrumentation that will be capable of being installed in both fixed wing and helicopter platforms..

continued on page 2

INSIDE THIS ISSUE

Update from the Customer Solutions Group

One Future Technology Conference

Attending this year's One Future Technology Conference in Houston this past May the talk of the panels and attendees was centered around "Certified Clean Energy" as the preference that end users/customers want from their respective direct gas & gas generated electric utilities. As demonstrated by South Western and New Jersey Natural Gas to achieve this certification (via the One Future Coalition) the whole enterprise from exploration, production, gathering, pipeline transmission, storage, processing, on through distribution… methane fugitive emissions must be identified and then reduced.
Protecting the carbon industry's market position NETI employs its filtered (ethane/methane) radiometric Sentinel Sensor upstream through downstream flying more than 330,000 miles of infrastructure yearly for our clients. Let NETI hear from you and we can address your companies' specific needs and provide cost efficient solutions.

Notes from the Scientific Laboratory

Remote Sensing

Remote sensing is a process in which you detect/measure the properties of an object from a distance. This is done by measuring a radiometric field which has interacted with the object. In the case of v3 leak detection, the property we are detecting is the concentration of the leaked gas, and the radiometric field we are measuring is Sunlight that has reflect off the ground back up to the airborne v3 instrument (the sunlight, not the aircraft, having passed twice through the leak gas plume).
. In specific, we are measuring the reduction in the solar radiance in narrow wavelength bands

continued on page 2

continued from page 1

From the Desk of the President continued

Once testing is completed by Colorado State University's Energy Institutes' METEC Team the current schedule is to introduce the new Sentinel Sensor with support software and camera systems in 2020. In the oil and gas industry's ongoing move toward Certified Clean Energy NETI's Sentinel Sensor will be a 21st Century Solution for an Age-Old Problem.

Notes from the Laboratory continued

corresponding to the absorption lines/features of the gas.

To do this measurement, the v3 instrument will employ a mature remote sensing technology known as Gas-Filter Correlation Radiometry (GFCR). GFCR was first developed in the 1960's, and has been deployed in numerous ground, aircraft, and satellite-based platforms for remote sensing of the atmosphere. The first satellite GFCR instrument was launched in 1970 on the Nimbus 4 satellite, to measure upper atmospheric temperatures. Since then, GFCR technologies have been used in numerous satellite and commercial instruments, for the measurement of gases in the atmosphere. The NETI v3 instrument will continue this proven tradition on methane (gas) and ethane (crude) fugitive emissions...

Technical Solutions Speak Volumes

What Separates New Era from the Rest?

In addition to being an aviation company we are also a technology company which includes building our own hardware and software to meet the client requirements.

We have developed (in house) our own flight planning optimization software for the most efficient and lowest cost options. This includes gathering /transmission/storage/ distribution systems.

The programs and hardware that has been developed by the New Era hardware and software engineers allows us to:

Develop the most efficient flight plans using the best routes and most efficient aerial platforms

In the event of a weather change while conducting a survey the flight plan can be recalculated during the flight to avoid delays and maintain the highest level of efficiency.

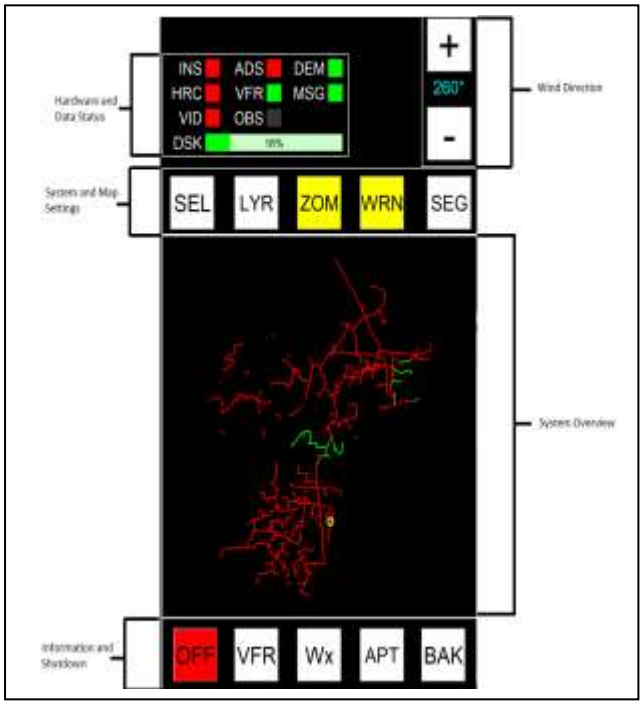
Unmatched Route Planning and Navigation

Sentinel Route Planning (SRP)

This is our route optimization and organization software which takes the clients original data (SHP, KML, CAD, etc.) and calculates the most efficient way to fly the system using an assumption matrix based upon the flight characteristic of the aircraft used, survey type, pilot experience, etc.

Sentinel Aerial Navigation and Data System (SANDS)

The navigation system (hardware and software) used to fly the SRP flight path and collect data (video, high resolution, CH4 indication, etc.). This also includes a downlink for reporting high level threats from the aircraft.



The above is a screenshot showing some of informa tion that is available to the pilot when using the Sands navigation system. Future newsletters will contain more information on this technically advanced system for both helicopter and fixed wing aircraft.

continued from page 1

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 2020 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.

Randy Burkham
National Sales Manager

Upstream-midstream-downstream Randy Burkham (New Era Technology Inc's National Sales Manager) has accumulated over 28 years' experience assisting the Oil and Gas Industry with overcoming the challenges that are inherent across the spectrum of remote sensing.

NETI applies a cost and time efficient fugitive emission leak indication detection solution… that meets the specific needs within the industry (upstream-midstream-downstream). These purposely built solutions help the carbon energy sector achieve Corporate Fugitive Emissions Policy to meet Federal and State Regulations, as well as achieve Clean Energy Certification.

Entering our 13th year NETI protects the carbon energy industry's position in the national and global energy markets

NEW ERA TECHNOLOGY, INC.

CONTACTS

Home Office

New Era Technology, Inc.
755 Boardman-Canfield Road
Suite F6 West
Boardman, Ohio 44512
www.NewEraTechInc.com

Sales Office

Randy Burkham
National Sales Manager
25622 Creston Meadow Drive
Richmond, TX 77406
Cell: (713) 444-4103

AIRCRAFT LOCATIONS

North Lima, Ohio 4G4
Salisbury, North Carolina KRUQ
Houston, Texas KTME

FUTURE NEWSLETTERS

Issue Dates:

September 2019

December 2019

March 2020

June 2020

Future contents:

Progress reports on sensor development

Details on navigation system

Business Updates

Technical Updates

Who's Who at New Era