UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) December 5, 2005

FLIGHT SAFETY TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

Nevada	000-33305	95-4863690
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

28 Cottrell Street, Mystic, Connecticut 06355
(Address of principal executive offices and Zip Code)

(860) 245-0191
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01. REGULATION FD DISCLOSURE

Cautionary Statement Pursuant to Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995:

"Safe Harbor" statement under the Private Securities Litigation Reform Act of 1995: This report contains forward looking statements identified by the use of words such as should, believes, plans, goals, expects, may, will, objectives, missions, or the negative thereof, other variations thereon or comparable terminology. Such statements are based on currently available information which management has assessed but which is dynamic and subject to rapid change due to risks and uncertainties that affect our business, including, but not limited to, the outcome of an informal inquiry by the SEC that appears to be in connection with certain analysts reports about us and our press releases, whether the government will implement WVAS at all or with the inclusion of a SOCRATES® wake vortex sensor, the impact of competitive products and pricing, limited visibility into future product demand, slower economic growth generally, difficulties inherent in the development of complex technology, new products sufficiency, availability of capital to fund operations, research and development, fluctuations in operating results, and other risks detailed from time to time in our filings with the Securities and Exchange Commission. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, goals, assumptions or future events or performance are not statements of historical fact and may be forward looking statements. Forward looking statements involve a number of risks and uncertainties which could cause actual results or events to differ materially from those presently anticipated.

Note: Information in this report furnished pursuant to Item 7.01 shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section. The information in this current report shall not be incorporated by reference into any registration statement pursuant to the Securities Act of 1933, as amended. The furnishing of the information in this current report is not intended to, and does not, constitute a representation that such furnishing is required by Regulation FD or that the information this current report contains is material investor information that is not otherwise publicly available.

The attached article was written about our SOCRATES® wake vortex sensor.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

FLIGHT SAFETY TECHNOLOGIES, INC. Date: December 7, 2005	
Samuel A. Kovnat Chief Executive Officer	

EXHIBIT INDEX

Exhibit No.	Description
99.1	December 5, 2005 Article Published in Aviation Week & Space Technology

Air Transport

'Socrates' Sensor System Hears Wake Vortices

Aviation Week & Space Technology
12/05/2005, page 52

William B. Scott
Denver

Lasers detect the acoustic signature of wingtip-generated twisters

Printed headline: Listening to Wake Vortices

A U.S. government and contractor team is developing a novel wake-vortex detection system employing laser beams that "listen" to the acoustic signals generated primarily by aircraft wingtip vortices.

When combined with other sensors and weather-monitoring instrumentation, the system eventually could give air traffic controllers information reliable enough to safely reduce the separation of in-trail air transports landing at busy airports. NASA studies indicate that tightening aircraft spacing to a standard of 3 naut. mi. in-trail separation could improve a given runway's per-hour throughput 6-20%, depending on traffic density and the mix of aircraft types.

As now envisioned, such an integrated Wake Vortex Avoidance System (WVAS) would cut airport delays significantly, translating to an economic benefit of up to $130 million at San Francisco International Airport and $129 million at Chicago O'Hare International Airport, for example.

One configuration of the Socrates acoustic-sensing system uses two groups of eight laser beams to detect the noise created by aircraft wake vortices. Credit: FLIGHT SAFETY TECHNOLOGIES

"The relationship between an increasing number of airplane [takeoffs and landings] and the delays experienced at an airport is not linear," says William B. Cotton, president of Flight Safety Technologies (FST) Inc., prime contractor for development of the "Socrates" laser-based, acoustic wake-vortex sensor system. "By increasing throughput of a runway by only 5%, you have a 20% decrease in average delay times. That's pretty dramatic." Those figures are based on a 1977 NASA study.

The latest motivation for developing a reliable, real-time wake-vortex detection system is linked to a return of air traffic to pre-Sept. 11, 2001, levels, and an associated surge in delays at busy airports. "The problem is getting worse, primarily because of the [regional jets]," says Wayne Bryant, NASA/Langley's WVAS principal investigator. When RJs and large, widebody aircraft are mixed in a landing pattern, FAA-dictated separation criteria to avoid wave-vortex encounters have a major impact on a busy airport's capacity.

"About 15-20% of the time, . . . airports lose significant capacity," he adds. "When that happens, the problems propagate throughout the entire national airspace system. But we're now in a position to make a difference."

Wake vortices are small horizontal tornadoes produced by airflow over the flaps and around the wingtips of an aircraft operating at high angles of attack. The heavier and slower the airplane, the stronger these vortices become. Although they drift with crosswinds and sink to ground level, vortices can take several minutes to move or dissipate.

These high-velocity twisters constitute a hazard to trailing aircraft, particularly during approach and landing. A small regional transport that flies into a strong wake vortex generated by a heavy, widebody aircraft, such as a Boeing 747-400, can encounter roll moments that exceed the RJ's lateral control authority. The smaller aircraft is especially vulnerable at slow speeds on approach, when its maneuvering capabilities are reduced. In short, strong wake vortices can flip the smaller aircraft onto its back, while it is only a few feet above the ground.

Today's separation rules for wake-vortex avoidance are based on conservative estimates of worst-case vortex-dissipation times. However, data from 30+ years of research in the U.S. and Europe are now available, offering the possibility for a technology-based solution. "We believe we can introduce systems . . . to increase capacity at a specified level of safety," Bryant declares.

NASA--through the U.S. Transportation Dept.'s Volpe Center--has contracted with FST to develop the Socrates wake-vortex sensor. Lockheed Martin's Ocean, Radar & Sensor Systems unit in Syracuse, N.Y., was named as principal subcontractor. The FST concept of using lasers to detect wake vortices' acoustic signatures is rooted in underwater sonar techniques developed to passively detect the presence of enemy submarines miles away.

The Socrates team conducted proof-of-principle tests of a laser-based acoustic sensing system at New York's Kennedy International Airport in 1998, followed by additional work at Langley AFB, Va., and a science-based series of tests here at Denver International Airport (DIA) in 2003. This autumn, a second series of tests was conducted with a two-array, 16-beam laser configuration set up about 2 mi. off the end of DIA's Runway 16L. The tests were aimed at developing a viable wake-vortex sensing system.

Using this "skyward-listening" configuration, 15 days were devoted to collecting acoustic data under the flight paths of landing and departing airline transports. A two-aperture set of 16 laser beams detected, then located the position and tracked the movement of an aircraft's wake vortices within a 50-meter block of airspace.

Noise produced by a vortex creates a pressure (sound) wavefront that penetrates the laser beams. Changes in air density as the wavefront passes alter the speed of a 1.3-micron-wavelength laser signal. Microradian-level phase differences between the outbound laser and the returning signal detect the wake vortex via phased-array signal processing techniques. One beam array can provide only angular (bearing) information from the laser transmitters, but two arrays enable triangulation and accurate location of a vortex.

Accurate detection of wake vortices' movements could allow closer spacing of aircraft during landing approaches and takeoffs, improving busy airports' throughput 6-20%. Credit: FLIGHT SAFETY TECHNOLOGIES

"With just one array, on one side [of the flight path], you can't say exactly where the wake is. Add the second array, which uses the same type of [signal] processing, and you get a second angle. We can [then] triangulate the sound and tell where it's coming from," Cotton explains.

"We're listening to the sound of an [aircraft's wake] vortex . . . in a plane perpendicular to the flight path," he adds. The highly directional laser beams ensure noise from other sources is rejected. A peak of acoustic energy is detected when the aircraft flies through the array's laser beams, but the wake-vortex signature of interest is some distance behind the transport.

To validate the laser-based system's vortex-detection and -positioning data, the DIA test site is equipped with a lidar system for comparison. "Five years ago, we believed that [continuous wave] lidar and pulsed lidar were probably the sensors of choice," NASA's Bryant says. But FTS suggested "a sensor based on 'hearing' the vortices. There were a number of skeptics." After the 2003 tests, though, "the skeptics--including me--had been converted."

A SECOND SENSING configuration also was set up at the DIA site for follow-on testing this fall. Called "standoff or range-focused," this setup comprises four towers about 100 meters (330 ft.) apart, arranged in a slight arc with a radius of roughly 1,100 meters and positioned 400 meters to one side of DIA's runway 16L flight path. The laser arrays converge at a point in space about 1 km. (0.62 mi.) up the glideslope.

Three of the towers are equipped with five lasers and retroreflectors; the fourth has only reflectors. Tower No. 1 fires a laser beam across to Tower No. 2's reflector, which bounces the laser energy back to No. 1's receiver. Tower No. 2 fires toward No. 3 and so on. The "listening," though, is accomplished via phased laser energy that converges on the stabilized approach point, defined as 1,000 ft. above the runway's touchdown zone and on-glideslope. That's also where a landing aircraft is at its relatively slow, final-approach speed--normally 120-150 kt.--and generating powerful wake vortices.

The acoustic-sensing lasers operate at very low power levels--on the order of 50-100 microwatts, spread over a roughly 1-in.-dia. beam. That yields a "very eye-safe 30-50 microwatts per sq. cm.," says Kevin H. Wilson, Lockheed Martin's Socrates program manager. Because the laser beams travel such short distances, humidity and precipitation have little impact on the system's operation.

NASA and an FAA team have spent more than 18 months developing a WVAS concept of operations (conops), focusing on the type of display such a system would require. "The [air traffic] controller will be shown [a display that allows] pretty much a binary decision-- either use a wake-vortex separation standard, or use standard radar-separation for everybody," Cotton says. Stable traffic flows will be enabled by vortex-detection sensors, which, when linked to other weather data, will enable reliable predictions of wake-vortex behavior.

Current conops set out three criteria for an operational WVAS:

* Prediction of wake-vortex movement, based on weather conditions. Developing dependable predictive tools has been a focus of NASA/Langley's research.

* A means of comparing actual wake-vortex movement with predictions.

* A means to determine how long a particular weather condition will persist. For example, a 10-kt. crosswind would move vortices away from a runway's flight corridor, but determining how long that wind will persist can dictate whether ATC revises an arrival flow rate.

Refinements of Socrates will improve performance and reliability, leading to an emulation of an operational WVAS that integrates wake-vortex-detection, weather sensors and prediction algorithms. Ultimately, the government-industry team expects to field a system that will help a controller quickly decide whether to rely on radar-standard spacing between aircraft landing and taking off, or tighten-up the traffic flow. In the rare instance when vortices don't dissipate or move as predicted, a real-time detection and positioning system like Socrates would alert the controller, "who may want to tell the following aircraft to go around," Cotton says.