



Whitney Scientific Corporation has developed and proven the marketability of breakthrough ICAS™ chemical sensor technology. The technology provides users with advanced situational awareness in potentially hazardous environments, through proof positive detection of multiple specific target chemicals. In comparison to competitive products, ICAS sensors are smaller and require no operator intervention. In particular, patented core technology eliminates the high level of “false positive” problems associated with other sensors in the detection of Toxic Industrial Chemicals (TIC), Volatile Organic Compounds (VOC) and Chemical Warfare Agents (CWA). The ICAS sensor wired and wireless network capability provides the highest possible level of real-time situational awareness and threat responsiveness. To enhance value to customers, the deployment of an ICAS sensor system has no intrusion on normal business, and provides fully automatic threat monitoring and detection, at the lowest available system operating cost.

Whitney Scientific, a self-funded Florida based corporation, is seeking strategic partners in specific industry markets. By working with strategic partners, the company plans to implement sensor based hazard detection and response systems that reduce exposure to chemical and biological threats in the environment, lower risk-associated cost, and improve the quality of life.

### **The Problem**

The concepts, design and technology used currently in chemical detection equipment is more than 50 years old. Legacy chemical and biological threat-detection management practices did not envision automatic, real-time threat detection, analysis and response, without operator intervention. The price for current detection equipment ranges between \$6,000 and \$48,000 per unit. The outcome of high cost is limited sensor deployment that results in impaired situational awareness and slow, ineffective response. The current hazard detection process is expensive and has a prolonged cycle-time, as it requires trained operators to identify and acquire samples, analyze detector data and communicate alerts. False positive threat indication occurs regularly. To lower the rate of false positive indications some leading existing-technology detector products even recommend testing for no more than a few chemical signatures at one time. Geographically comprehensive real-time threat notification is neither affordable nor available.

### **The Solution**

ICAS automatic, wide-spectrum and miniaturized sensor technology allows customers to deploy comprehensive, low cost chemical and biological threat sensor networks to enable real-time situational awareness and response. ICAS “Interferometric Chemical Array Sensors” are capable of detecting more than three times the quantity of threats when compared to competitors’ sensors. “SWAP+C” benefits include minimal size and lightweight, sophisticated analytic capability without operator intervention, low power requirement, and an economical cost under \$1,000. ICAS can analyze the ambient air several times per minute, detect chemical threats, and automatically announce threats through network connections in real time, and local alerts.



ICAS significantly reduces false alerts because of: 1) high sensitivity-level detection, 2) the ability to detect more than 30 hazardous and non-hazardous chemical signatures simultaneously, and 3) differential chemical threat discrimination software. The combination of these factors results in significantly lower false positive indications when compared to other field deployed sensor products.

In addition to traditional TIC, VOC, and CWA threat detection, ICAS sensors are capable of identifying other threats and biological agents. Application-specific functionalization and packaging accommodates precise target threat signatures, and unusual thermal, vibration, shock and other environmental conditions.

### **Environmentally Responsible**

ICAS sensor’s technology has minimal impact on the environment. Unlike competitive products that use consumable chemicals, radioactive components, and in many cases require frequent recharging, ICAS has no consumable components.

The technology used by competitors consumes more power than ICAS technology. More power results in shorter duty cycle and increased equipment weight when sensors are used as a component on the uniforms of field-deployed personnel, and an increased maintenance requirement in fixed location deployment.

### **Market Opportunity**

Whitney Scientific's products sell into multiple specific markets including safety and air quality monitoring, transportation hazard monitoring, and the USA State, Federal and Department of Defense hazard detection markets. Whitney will consider other markets in the future. According to numerous government and private market analysis reports, these specific markets are expected to exceed \$1.5 billion by 2015 and achieve a five-year compound annual growth rate (CAGR) in excess of 15%. In the same period, the overall sensor market projection exceeds \$4.0 billion.

The Company plans to market and adapt its products to large commercial and government organizations through strategic partners who have industry leadership recognition, exceptional industry vision and view sensor products as a complementary extension to their product and service offerings.

### **Competitive Superiority**

The design of ICAS sensors is based on proven technology that exceeds the sensitivity of the technology used in other sensors. ICAS sensors detect a greater quantity of environmental hazards and, normally occurring, non-hazardous chemicals in the environment. The ability to discriminate between hazardous and non-hazardous chemicals and perform a comprehensive analysis prior to alert notification is the major factor in ICAS reduction of false positive reports. When compared to competitor's products, ICAS is easier to deploy, more capable than other sensors, transparent to the operations, and delivers a better return on investment (ROI) and the lowest total cost of ownership (TCO).

### **Whitney's Operations**

Whitney's scientists, multi-disciplined engineering personnel, operations team, quality management team and other personnel reside in several USA facilities. ICAS sensors are manufactured in the USA in certified clean rooms within ISO 9001 certified manufacturing facilities. The company plans to ship its first revenue product in mid-2011.

### **Strategic Partners**

Whitney's strategy is to become the leading producer of core hazard sensing system components to include sensors, analytic components, supporting network infrastructure components, situational awareness control software and supporting services. Whitney's go-to-market plans are to adapt and supply the core components to the exacting requirements of specific industry markets by forming strategic partnerships with leading industry suppliers that distribute complementary products.

### **Leadership Team**

#### ***Phillip A. Viscomi: President and CEO***

Phil is a technology industry veteran with 25+ year's experience who has formed, led, grown and returned value to investors in emerging, mid-size and Fortune 50 corporations. Phil's record of accomplishment includes successfully launching four hardware and software companies and growing Compaq Computer's multi-million dollar major global customer business portfolio.

#### ***William M. Ash III, Ph.D.: Chief Science Officer***

Bill's vision represents the core concepts of Whitney's innovative sensor systems. He is an applied physicist with 25+ years of microelectronic experience in government mil-aero electronics, ASIC development and production. Bill leads Whitney's science initiatives.

#### ***Kendall A. Honeycutt: Vice President and CTO***

Ken has over 25 years of leadership experience and significant accomplishments in hardware and software based sensor, robotic and technology product design and development at IBM and at the industry's first blade-server computer company. Ken leads Whitney's multi-disciplined engineering team.

#### ***Jon New: Senior Advisor, Financial***

Jon is a veteran startup and established organization CFO. Jon has led finance and operations strategies, accounting, SOX compliance, etc., through successful exit in multiple private and public firms.

#### ***Dennis Szerszen: Senior Advisor, Business Development***

Dennis has a successful career leading business development initiatives at IBM and several startup technology companies. Dennis is spearheading Whitney's business development, sales and marketing activities.

#### ***Industry Leading Advisors and Board Members***

Whitney's management has secured the commitment of successful industry executives with subject matter expertise to complete its leadership team.

### **For Further Information:**

Please contact [info@whitsci.com](mailto:info@whitsci.com).