PerfectSights
Executive Summary

The products and services of PerfectSights are based on the delivery of high-resolution pictures, environmental data, and networking services from remote locations. Consumer use of these products is enhanced by the ability to connect them via the World-Wide-Web. PerfectSights uses the same core technology in a modular approach that makes use of and innovates on current state-of-the-art, off-the-shelf technologies. PerfectSights will market its products under three lines, specific to three target market segments.

The EcologySights line will supply custom solutions to resource management and the research community through use of remote monitoring systems. This solution could be very useful for Threatened and Endangered Species (TES) lands monitored by the DoD.

The current method of monitoring TES is by sending out manned teams of scientists and deploying large obtrusive units that are harmful to the environment. The current cost is estimated to be at least twice as much as the PerfectSights method. In addition, the data collected for TES monitoring is infrequently collected and thus inaccurate and unreliable. Other applications range from industrial monitoring and agriculture productivity enhancement, which can use the same technology based on long-term, fixed location sensing systems. There is a potential to expand at a later date to an educational role by creating an interactive learning environment for students in the study and remote monitoring of rare and endangered species.

The MobileSights line adapts the core technology to support teams that need to make rapid assessments of remote field locations. Emphasis will be on high-bandwidth communication of data between team members, a base location and data resources. Applications will include search and rescue, disaster recovery and humanitarian relief.

The TravelSights line will deliver travel-magazine quality images of the world’s most exotic visitor destinations in near real-time.

Business Concept

PerfectSights is a micro-sensor network development company that creates modular units capable of remotely transmitting both data and high-resolution pictures in near real-time. The combination of the three product lines will support the potential for early cash flow, stability by diversification of markets, and significant opportunities for research funding to support core technology development. The use of off-the-shelf hardware components, outsourcing component development, and common R&D facilities minimizes recurring costs.

The company’s strategy is to: 1) Identify each market segment’s needs and 2) Customize modular units to those needs, thereby adding value and minimizing
customers’ costs. The core strategic competencies, therefore, will focus on cost focus and operational excellence, commercial off-the-shelf (COTS) components, custom-ordered units tailored according to target market needs, and rapid protocol (as part of product testing).

**Opportunity**

Finer, smaller and more accurate microprocessors and sensors are being developed and manufactured at a rate faster than ever before. 802.11 wireless communications is fast becoming the accepted industry standard. Satellite communications, while having been around for some time, is now more economically viable for use in remote locations. High resolution CCD imaging has evolved from a high power consumptive, slow communicating unit into a compact, high speed, higher resolution more robust and user-friendly unit. The Internet has facilitated such innovative concepts as global data access, distributed data processing, collaborative studies, virtual proximity and tele-robotic operation.

*PerfectSights* has identified and will target markets that can benefit from its product lines with technologies that are state-of-the-art yet affordable. The products and services that will be offered will add value to each market’s existing operations and *PerfectSights* will capitalize on innovative technologies to expand into untapped markets as they are identified.

**The Target Market and Projections**

The company has identified the target market and secured buyers such as Makua Valley, Rongelap Resettlement Program, Lord Howe Island (Australia), and Hawaii Volcano National Park for its initial *EcologySights* product lines.

The Company will initially focus marketing efforts on the *EcologySights* project and has identified the most attractive military-related market segments and sizes as follows:

1. The US Military has over 25,000,000 acres that are used for training and testing, 100,000 archeological sites, and 200 sites listed on the National Register of Historic Pieces. More than 300 endangered species are known to inhabit these lands. The estimated budget for environmental monitoring is $15 with savings in staff effort with the use of PerfectSights technologies conservatively estimated at $5M annually for the 50 major DoD installations. [1]
2. The Air Force manages more than 100 installations and training ranges on over 9 million acres of land. Many of these lands are kept in pristine condition because of the need for safety buffers around Air Force training operations. With more than 70 listed species known to occur on at least 45 installations, the Air Force invests more than $5 million for the protection of these species each year.[2]
3. In Hawaii alone, the potential to use EcologySights is prevalent with endangered species in Makua Valley and on Haleakala. Over 100 sensors are needed to cover each of the site areas, which amounts to a cost of $250,000 annually.
TravelSights: The Company intends to focus their marketing efforts in island destinations and other tropical climates, and have identified 300 hotels as initial sales targets.

Competitive Advantages

PODS has developed proprietary techniques which include:

1. The use of specialized routing algorithms
2. Specialized sensors for detecting moisture
3. Compact enclosures that will be overlooked by humans and will not harm the environment.
4. Compact, unobtrusive, cryptic designs with high resolution (2.1 megapixels vs. 76k current market standard, superior dynamic range): PerfectSights has developed these innovative technologies.
5. HOPS: an integrated reprogramable communications network system that allows multiple communication activities between modules and base stations.

The Company’s entry wedge into the market is the ability to develop smaller, more concealable and more precisely integrated monitoring solutions than any other competitor. As a result of The Company’s proprietary technology and process designs they will develop the following competitive advantages:

- **Low component costs (COTS), low overhead:** The company will use inexpensive commercial-off-the-shelf components. Special modifications and assembly techniques have been developed and have become a process that requires minimal overhead and low operational intensity.
- **A highly specialized team**
- **Supplier Alliances:** EnviroGuise a supply partner was formed as a result of the PODS project and has become the manufacturer of the unique enclosures that will hide the modular components.

Founding Personnel of the Research and Management Team

The research and management team has been working together for nearly two years on a major research program called ÎPODS: A remote ecological micro-sensor network.Ó The goal of the PODS research is to use remote sensors and networking technology to help save rare and endangered plant species.

Dr. Kim Bridges had a vision of solving ecological observation without polluting the local environment. His goal was to create a system of deploying remote instruments that would be affordable to the scientific community. He is an associate professor at the University of Hawaii at Manoa. His background includes more than thirty years of experience with computer graphics and programming. His ideas inspired his close friends, Dr. Edo Biagioni and Mr. Brian Chee, also from the University of Hawaii to
collaborate in his efforts. They bring with them technical Information and Computer Sciences expertise ranging from networking and high security to programming and software engineering. Michael Lurvey is the engineer in charge of manufacturing and modifying the modular units in each product line. He also has experience in domestic and international business management and is currently an MBA student at the University of Hawaii at Manoa. Marketing will be lead by Sharon Craven, an internationally known MBA graduate in International Marketing. She has been a leader in the field of ecological and environmental equipment sales and leasing worldwide.

**Capital Requirements**

PerfectSights is seeking funding in the amount of $3 million for the first two years of operation. PerfectSights will be able to offer an Act221 tax credit rebate as part of its incentive to an investor. The company is considering a payout to the investment after four years when the company will be offered in an IPO, sold, or possibly poised for a second round of investment capitalization.

[1] DOD Joint Engineeers, Mr. William Goran, USA, Chair