

## Due Diligence and Valuation Report

Arrowhead Code: 90-01-02  
 Coverage initiated: 08 April 2011  
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 Fair share value bracket: US\$0.63 to US\$2.35<sup>i</sup>  
 Share price on date: US\$0.095<sup>ii</sup>

### Analyst

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### Market Data

52-Week Range: US\$0.04 - US\$0.12<sup>iii</sup>  
 Average Daily Volume: 222,356<sup>iv</sup>  
 Market Cap. on date: US\$31.34MM

### Financial Forecast Data (in US\$)

	'11E	'12E	'13E	'14E	'15E	'16E	'17E
High profit/ (loss) MM	6.9	5.8	38.9	35.8	31.9	86.1	80.5
High EPS cents	2.1	1.8	11.8	10.9	9.7	26.1	24.4
Low profit/ (loss) MM	(3.4)	(4.5)	10.9	8.9	6.4	28.5	25.4
Low EPS cents	(1.0)	(1.4)	3.3	2.7	1.9	8.6	7.7

### Fiscal Year (FY)

1<sup>st</sup> January – 31<sup>st</sup> December

### Summary

World Surveillance Group Inc. ("WSGI") is engaged in the design, development, marketing and sale of technologically advanced autonomous lighter-than-air (LTA) unmanned aerial vehicles (UAVs). The company's airships, when integrated with electronics systems and other high technology payloads, are designed for use by government-related, military, defense and commercial entities that require real-time intelligence, surveillance and reconnaissance or communications support and maritime missions.

WSGI's Robotic Airship UAV's operate across a range of altitudes - from low altitude (LAAs) and medium altitude (MAAs) to high altitude (HAAs).



World Surveillance Group Inc.

Company: World Surveillance Group Inc  
 Ticker: OTCBB: WSGI  
 Headquarters: Kennedy Space Centre, Florida  
 CEO and President: Glenn D. Estrella  
 Website: <http://www.wsgi.com/>

The company's products are either airships, or relate to the efficient functioning of airships, or components of airships. Its product line includes ARGUS ONE (MAA), SkySat (LAA/MAA), STRATELLITE (HAA) and ARGUS MTS. WSGI's current focus is on ARGUS ONE, which is expected to be commercialized by Q2 2011. The company has already sold a SkySat demonstrator for upto US\$1MM in Q2 2010, while STRATELLITE's stratospheric testing is being targeted for 2013.

The company's products have a number of advantages relating to cost benefits, longer endurance and easy mobility.

WSGI is currently working with a couple of partners on its ARGUS ONE mission; L-3 Communications Inc., a leading US DoD contractor, for communications equipment development and Eastcor Engineering for technical development.

Additionally, the company has also entered into a letter of intent to acquire Global Telesat Corp (GTC), a provider of satellite airtime and customized tracking solutions and services to the US Department of Defense (DoD). This acquisition is expected to add a steady revenue stream and a new business line for the company. Recently, in April 2011, WSGI has also received a capital commitment to the tune of US\$1.5MM from Space Florida.

In Arrowhead's view, the market dynamics coupled with the company's product portfolio and strategic partnerships all are major positives for WSGI's prospects. Given due diligence and valuation estimations based on intrinsic revenue capacity of existing assets, Arrowhead believes that the company's fair share value lies in the US\$0.63 to US\$2.35 bracket.

## Company Presentation

World Surveillance Group Inc. is a Kennedy Space Center, Florida-based company engaged in the design, development, marketing and sale of technologically advanced autonomous lighter-than-air (LTA) unmanned aerial vehicles (UAVs). The UAVs are capable of carrying payloads that provide persistent security and/or wireless communications from air to ground solutions at low, mid and high altitudes. The company's airships, when integrated with electronics systems and other high technology payloads, are designed for use by government-related and commercial entities that require real-time intelligence, surveillance and reconnaissance or communications support for military, homeland defense, border control, drug interdiction, natural disaster relief and maritime missions.

Its target market includes the Department of Defense, Homeland Security, Emergency Services and Commercial use. WSGI's Robotic Airship UAVs will operate in a range from low and medium to high (the stratosphere or "near space" 65,000 feet [19,800 meters]) altitude, referred to as High Altitude Airships or (HAAs) or High Altitude Long Endurance (HALES).

WSGI completed the sale of its SkySat UAV demonstrator, for up to US\$1MM, in Q2 2010 to GTC; its current focus is on preparing the patent pending ARGUS ONE UAV for continued flight testing, under its agreement with partner and top 5 US Defense Contractor, L-3 Corporation. The companies have agreed to work together to – i) market the Integrated Systems to Identified Programs and ii) submit proposals to potential clients. Initially, L-3 shall serve as the systems integrator and operator of WSGI's Mid Altitude Long Endurance (MALE) ARGUS ONE LTA UAV.

WSGI is also developing its long-term program based on renewable energy systems. The goal is to have emissions-free vehicles, to keep their stations in the stratosphere for up to 18 months at a time, and to rely on solar energy. The development encompasses solar electric and a unique fuel/gas (the fuel is in a gaseous or vapor state rather than liquid) solution, which provides exceptional flight time endurance. This gives WSGI an immediate product to market with distinct marketing advantages.

The company is undergoing a transformation under the new leadership of Chairman Michael K Clark and CEO Glenn Estrella, both formerly with JPMorgan Chase and Fidelity and who joined WSGI in Q2 2010. Under their helm, WSGI will focus on its core competency of marketing its UAV products in the US through expanding relationships with partners. Earlier, the company had shed unprofitable activities, eliminated unnecessary spending, pared down headcount and focused on forging only the most beneficial relationships and resources.

An infusion of further capital shall allow the UAV manufacturer to accomplish key short and mid-term marketing goals, accelerate production and advance product development goals faster. In April, the company received a capital commitment to the tune of US\$1.5MM from Space Florida. Further, the company has begun realizing revenues from FY2010, through its SkySat deal; from Q2 2011, revenue flow is also estimated from the impending ARGUS ONE commercialization. All these factors lead us to believe that its programs will become profitable from FY2013 and until then it will continue to incur losses.

## WSGI Product Portfolio

WSGI is engaged in the business of UAVs and all of its products are airships, or relate to the efficient functioning of airships, or are components of airships.

The company's product portfolio includes:

### - ARGUS ONE

ARGUS ONE is the company's Mid Altitude Airship, intended as the STRATELLITE for lesser altitude. The UAV is equipped with a revolutionary design, automated control for individual body modules and provides a robust platform for a wide range of electronics suite applications. It provides many of the same features of the STRATELLITE for communications and ISR and can be used as a moving or a stationary platform. Its key feature is improved flight stability than peers and better aerodynamic control. ARGUS ONE is uniquely designed to have an endurance of 2.5 - 5 days whereas today's leading UAVs in service operate for 6-18 hours. Further, the airship comes with the added advantage of rapid deployment from and recovery to a standard box type truck, rendering it mobile and not wasted as a sitting duck. Key applications are for ISR, drug enforcement and border monitoring activities of government and related agencies. It also finds applications in commercial purposes such as mobile communications system, infrastructure management etc. The airship was unveiled on March 28, 2011; WSGI has recently commenced testing of the airship and further tests are expected to be conducted. WSGI expects to complete development of ARGUS ONE by Q2 2011.

### - SKYSAT

The SkySat is a traditional Low/Mid Altitude Airship and provides many of the STRATELLITE's features at a lesser altitude. It complements the ARGUS ONE family of airships and is designed to carry heavier payloads for durations of less than a week. It is also capable of supporting both strategic and tactical missions. The "Cigar" based airship concept, platform stability, performance flexibility in performance and simplicity in design bestow SkySat with the advantages of mission variety, complete sensor compatibility and cost effectiveness. The market for the SkySat UAVs relates to similar applications as ARGUS ONE. In Q2 2010, WSGI entered into a contract to sell a SkySat demonstrator to Global Telesat Corp (GTC) for up to US\$1MM. The company's recent acquisition of GTC is expected to enhance value through combining organic growth and strategic acquisitions, resulting in synergies and cost savings across the board.

### - STRATELLITE

The STRATELLITE, the largest of the WSGI airships, is intended for high altitude long endurance mission and offers the functionality of a satellite in the stratosphere. The patent pending UAV design could cater to services ranging from military (Intelligence, Surveillance & Reconnaissance (ISR) and communications) to commercial (Internet-Protocol-TV [IPTV], Cell, Internet), with round-the-clock operation in the stratosphere. The key distinguishing feature between the company's STRATELLITE and other HAAs is that the former can be brought down and serviced/updated unlike satellites. The UAV would cater to a number of applications including border control, coast protection, weather surveillance and telecommunication services.

### - Argus MTS

The Argus MTS represents a new approach for aerostats which have been a very popular solution for ISR capabilities for U.S and foreign Governments around the world. The Argus MTS has all the characteristics of a standard aerostat but differs by utilizing the highly efficient Argus One modular designed body which can cope with winds more effectively.

For more detail on Assets see the *Company Products* section of this report.

## WSGI Portfolio and Company Premiums

WSGI's flagship design, the patent-pending ARGUS ONE, is expected to be commercialized by Q2 2011. The company unveiled the uniquely designed ARGUS ONE in March 2011 and it has also begun testing the UAV.

- Recently, in April 2011, WSGI announced its intention to acquire GTC. GTC is an eight-year old, satellite-based asset tracking organization, mainly focused on providing satellite airtime and customized tracking solutions and services to the US Department of Defense (DoD). It also resells airtime and equipment from leading satellite network providers such as Globalstar, Inmarsat, Iridium and Thuraya. Since inception GTC has grossed over US\$27MM in revenues and has operated with a positive cash flow and net profit every year. Earlier in 2010, WSGI had sold a 50% interest in SkySat to GTC. The acquisition of GTC is expected to bestow WSGI a steady revenue stream and a new business line with solutions now encompassing ground, air and space-based communications.
- Also, in April, the company received a financing commitment for up to US\$1.5MM from Space Florida, an independent special district, body politic and corporate, and subdivision of the State of Florida. With additional funds flowing in, the company shall be in a better position to focus on its UAV operations.
- The company has strong relationships with commercial and established companies such as L-3 Communications, Eastcor Engineering, Elisra and military organizations such as the OSD. Eastcor is the lead contractor to conduct operations for ARGUS ONE UAV program. Eastcor is experienced in the design and build of specialized miniature electronic devices for use in surveillance and tracking for the various US Government Agencies. It also has a technological relationship with L-3 Communications (C2S2 Division), a prime contractor in command, control and communications, intelligence, surveillance and reconnaissance, and electronic systems, among others. WSGI and C2S2, along with Eastcor, are collaborating on preparation of the Argus One airship for additional testing and demonstrations to potential Government customers. Given the nascent stage of its operations, WSGI's partnerships with established players could help introduce the company or sponsor it for prospective projects of the military.
- The MAA UAV airship market is largely under-tapped and stands to benefit from a model such as the ARGUS ONE. This is a definitive market with significant and extensive interest found in the government/military and commercial sectors. The U.S. Government is offering substantial R&D awards to companies that are on the leading edge of related technology and systems development. WSGI intends to compete for this funding; it believes that though a number of companies are attempting to enter this market none has yet progressed ahead of WSGI.
- The company has undergone reorganization, with increased focus on the opportunities associated with its core competency of marketing its UAV products in the US. The company has shed unprofitable activities and pared down its headcount to the bare minimum. WSGI has also repositioned itself with a revamped and experienced management – it is led by its Chairman, Michael K. Clark, formerly with JP Morgan. In 2010, it hired a new Vice President, General Counsel and Secretary, Ms. Barbara Johnson, a former partner in several large law firms and with expertise in public company reporting and corporate governance. It also brought on board a new Chief Financial Officer and Treasurer with experience in public company reporting and financial, accounting and treasury functions. Its board also includes former U.S. Army Major General Wayne P. Jackson.

## WSGI Portfolio Company Risk

- WSGI is still in the early phase of its product pipeline – only one of its products, SkySat, has been marketed and GTC is its sole customer. The company's other two flagship products are patent pending designs, yet to be commercialized. The success of the company depends on the timely and effective c of these products.
- There are significant risks associated with the financing and capex position of the company. WSGI currently has only US\$29,491 of cash and cash equivalents, as of FY2010. Working capital amounted to a negative US\$19.4MM and net loss stood at US\$9.8MM. It has no other firm capital commitments, other than the recently issued commitment for US\$1.5MM state financing. There are also high debt obligations to the tune of US\$18.1MM. Ensuring a steady flow of funds for its operations shall remain the key challenge for the company, in the near to medium term.

- WSGI solely relies on its technological partner Eastcor Engineering, for the development and commercialization of its airships; there are no technical personnel in its employment. Any adverse change in the relationship could cause a significant delay in the company's product development and further postpone commercialization.

## WSGI Corporate Strategy

WSGI aims to penetrate the market of commercial and government customers by providing its unique aerial platforms to carry advanced ISR Sensor and/or Communications payloads. Its objective is to bring its first production model Mid Altitude UAV, ARGUS ONE, to market in Q2 2011 and thereby generate additional sales revenues for the company. It further aims to continue with the development of the SkySat UAV, its various larger Robotic UAV airships and its high altitude airship, the STRATELLITE.

WSGI has undertaken the following steps toward the accomplishment of its objective:

- Built a partnership with L-3 Services, Inc. to work jointly on preparing the ARGUS ONE UAV, so as to render it marketable by Q2 2011
- Further collaboration between the company and L-3, with Eastcor Engineering, for additional testing and demonstrations to potential Government customers
- Acquisition of US Defense Contractor GTC, to whom the company had last year sold a 50% interest in its SkySat program. GTC, a leading provider of satellite-based asset tracking and monitoring services for governments and commercial users, has also made equity investments in WSGI, the proceeds of which are being used to fund its R&D activities
- Working with other defense contractor and technology companies including Globalstar and Elisra (Elbit Systems) and others
- Development of a long-term program based around renewable energy systems, with a view to have emissions-free vehicles. Some programs are envisioned to stay in the stratosphere for up to 18 months at a time, and are solar-powered

Earlier, during 2010, the company had undergone a management and operational reorganization and is currently focusing on the opportunities associated with its core competency of marketing its UAV products in the US. In line with this, it had:

- Repositioned the company, with a revamped management consisting of Chairman, Michael K. Clark, formerly with JP Morgan and U.S. Army (RET) Major General Wayne P. Jackson
- Shed unprofitable activities, eliminated unnecessary spending and pared down headcount to four, settled an outstanding SEC claim for \$300k.

## Key Trends in UAV Market

### Sector Trends: UAV Market

UAVs are powered, aerial vehicles which do not carry a human operator, use aerodynamic forces to provide vehicle lift and can fly autonomously or be piloted remotely. Typically, their largest uses are in military applications – for performing reconnaissance as well as attack missions; they are also being used in a small but growing number of civil applications, such as telecommunication, firefighting or surveillance of pipelines.

Market Research Media, a leading market research firm, estimates that the US military market is set to grow at a CAGR of 10% between 2010 and 2015. The report further states that the market is expected to be US\$62bn over the period<sup>v</sup>, with annual spending exceeding US\$12.7bn by 2015. Earlier, between 1990 and 1999, the DoD invested over US\$3bn in Unmanned Air Systems development, procurement and operations. The figure has risen to US\$6bn, since September 11, 2001, clearly making the WSGI target market very desirable.

In the commercial application space, services such as wireless broadband, IPTV, and telecommunications are the key potential applications for UAVs. It is estimated that the IPTV service revenue shall grow exponentially from US\$1.3bn in 2009 to US\$22.1bn by 2015, thereby calling for a significant scale-up of services to this market segment. Over the same period, the Direct Broadcast Television and Satellite Radio markets are also set to witness significant growth, from approximately US\$70bn (2009) to over US\$110bn (2015). Despite its applications in military and defense, UAV applications in the civil and commercial space have been slow to appear, mainly because of concerns over the safety of flying unmanned aircraft in crowded civilian skies.

For more detail on trends see *Products and Marketing* section on page 10 of this report.

## Target Market

The company is looking at primarily government organizations (military, security, communications, environmental, agriculture) and commercial broadband operators (telecoms, cable operators, internet service providers, content providers, etc.) for deployment of its airships in coming years.

## Military/Government/Defense

HAA's are a relatively new business sector, with not many players offering a viable HAA long endurance airship. Currently, Lockheed Martin, in association with the US Army Space and Missile Defense Command (USASMDC) is engaged in the construction of a prototype HAA. Meanwhile, WSGI's STRATELLITE airship is expected to be ready for planned stratospheric flight testing by 2013. STRATELLITE applications for military purposes will be equipped with cutting-edge sensors, digital communications technology, and advanced avionics and enables strategic and tactical intelligence gathering and 24X7 threat surveillance operations. The cost-effective, high endurance airship can also inherently serve as communications/data relays across different platforms, host a common set of hardware to meet Multi-Agency requirements, and offer integrated capabilities for the tactical battlefield scenario.

The MAA market offers potential for a model such as the WSGI ARGUS ONE. The US government is offering substantial R&D awards to companies that are on the leading edge of HAA and related systems development. WSGI intends to compete for this funding and, given the status of its patent-pending ARGUS ONE model, is well poised to capitalise on the opportunities presented.

## Commercial Business

The commercial business currently is not a very competitive market and the company envisions a targeted approach to secure appropriate service providers for respective markets. WSGI plans to target telecommunication firms that need extensive receiver station infrastructure. The STRATELLITE is designed to cater to the mentioned need. The company's commercial efforts are designed to deliver traffic and logistical asset management, topographic mapping, security services and pipeline monitoring, among others.

## Key Variables in Determining WSGI's Revenue Estimates

- Number of units expected to be sold, for each product category – ARGUS ONE, STRATELLITE and SkySat
- Estimated contract price per unit of each product sold
- Airtime, equipment and contract charges
- Payroll and related taxes, consulting fees, R&D expenditure and general and administrative expenses

For more detail on key variables see *Key Variable Analysis* section of this report.

## News<sup>vi</sup>

- **World Surveillance Group Announces New Stock Ticker Symbol - WSGI (April 21, 2011)**  
World Surveillance Group Inc. (OTCBB: SNSR), announced that FINRA has approved a change in its ticker symbol. Effective at the open of the market on Monday, April 25, 2011, the Company will trade under the symbol "WSGI."
- **Argus One UAV Completes Initial Flight Testing (April 19, 2011)**  
World Surveillance Group Inc. announced that its Argus One UAV has successfully completed its initial series of flight tests to an altitude of 500 feet. The restricted, low altitude flight tests were conducted under tower control at Easton Airport by its technical partner, Eastcor Engineering. Additionally, Sanswire Corp. announced today that it has changed its corporate name to World Surveillance Group Inc. ("WSGI"). The new name reflects the Company's intention to focus on providing enhanced global intelligence, surveillance, and reconnaissance ("ISR") and monitoring services following its recently executed letter of intent to acquire satellite based tracking firm, Global Telesat Corp. ("GTC"). In connection with its name change and the Company's new focus and direction, the Company is unveiling a new website [www.wsgi.com](http://www.wsgi.com).
- **WSGI Invited to Yuma to Conduct Flight Testing and Demonstrations of Argus One Airship (April 14, 2011)**  
World Surveillance Group Inc. announced that the Company has been invited by the U.S. Department of Defense ("DoD") to conduct flight testing and demonstrations of its Argus One UAV at the U.S. Army proving ground facility in Yuma, Arizona. The Company expects to carry out such flight testing operations and demonstrations during a two week period in May/June 2011 and plans on conducting a series of tests ranging from ground based tactical launch scenarios to both tethered and free flight operations. The Company has been working with the DoD to finalize a flight safety plan relating to such test operations and will set the actual dates of the testing and demonstrations once such safety plan has been approved.
- **WSGI Enters Into Letter Of Intent To Acquire Global Telesat Corporation And Secures \$1.5m Commitment Letter From Space Florida (April 12, 2011)**  
World Surveillance Group Inc. announced that it has entered into a letter of intent (LOI) to acquire 100% of the outstanding shares of GTC, a New York based satellite tracking firm. The agreement includes the acquisition of all assets, inventory, government and commercial contracts, customer lists and all associated operations equipment owned and developed by GTC. Both the company's Boards have approved the transaction and the transaction is expected to be closed in the second quarter of 2011.  
In another development, the company has received a financing commitment for up to US\$1.5MM from Space Florida, an independent special district, body politic and corporate, and subdivision of the State of Florida.
- **WSGI Unveils New Unmanned Airship "ARGUS ONE" (March 28, 2011)**  
World Surveillance Group Inc. unveiled the company's new UAV – "ARGUS ONE." The launch of ARGUS ONE follows the company's recent filing of a provisional patent application in the United States for the new airship design and demonstrates the uniqueness of the company's UAV design. Argus One, named after the Greek god Argus, the all-seeing god with one hundred eyes, was designed to meet certain requirements for intelligence, surveillance and reconnaissance (ISR) applications for the US military and other governmental agencies. Argus One provides governmental and commercial solutions to a UAV market, which is projected to exceed US\$62bn by 2015.
- **WSGI Files Provisional Patent on New Airship Design (March 24, 2011)**  
World Surveillance Group Inc. filed a provisional patent application in the United States for a new airship design. The technology was developed for WSGI under contract by Eastcor Engineering, a US DoD prime contractor, specializing in high technology engineering products and services. The company filed the provisional patent to ensure protection of its intellectual property and position itself to launch and exhibit the company's technology.
- **WSGI Appoints New Chief Financial Officer (February 08, 2011)**  
World Surveillance Group Inc. hired Jeffrey Sawyers as the company's Chief Financial Officer and Treasurer. Mr. Sawyers has over 30 years of diversified financial management experience. Currently, Mr. Sawyers served as the Corporate Controller for Tijuana Flats, a restaurant chain with around 70

corporate, joint venture and franchise restaurants, where he was responsible for all the external financial accounting and reporting systems, audit and tax management, and banking relationships. Mr. Sawyers is a certified public accountant and a certified management accountant. He earned his Bachelor of Arts in Accounting from the University of South Florida in 1978 and then spent three years as a senior accountant at KPMG Peat Marwick.

- **WSGI Announces New Corporate Headquarters at Kennedy Space Center (November 18, 2010)**

World Surveillance Group Inc. relocated its corporate headquarters to a facility located on the grounds of the John F. Kennedy Space Center (Kennedy Space Center) with effect from December 1, 2010. Glenn Estrella, President and CEO, said; "We are extremely excited to relocate our corporate headquarters to Kennedy Space Center. This move is an unparalleled strategic opportunity for the company to be located next door to world renowned technological facilities and personnel. We believe our access to the resources at the Kennedy Space Center will enable us to accelerate the development and testing of our UAV airships."

- **WSGI Appoints New General Counsel (November 02, 2010)**

World Surveillance Group Inc appointed Barbara M. Johnson as the company's Vice President, General Counsel and Secretary. Ms. Johnson was previously a Partner in the Business & Technology Group at Choate Hall & Stewart, LLP, following a long career as a Partner and Associate in the Business Practice Group at Testa, Hurwitz & Thibault, LLP, both large, full service law firms in Boston, Massachusetts. Ms. Johnson specialized in advising early and later stage multi-national and international public and private companies across a wide range of industries, including in the defense area, both as a legal and a business advisor.

- **WSGI Secures Event Sponsorship of the High Altitude and Near Space Conference (September 01, 2010)**

World Surveillance Group Inc planned to participate as the event-level sponsor of the High Altitude and Near Space Conference. In addition, WSGI Chairman Michael K. Clark was to present a keynote address at the second annual technology event which will take place September 28-30 in Colorado Springs, CO at the Crowne Plaza Hotel and Conference Center.

- **WSGI to Construct New Mobile Hangar (July 08, 2010)**

World Surveillance Group Inc. announced that its STS-111 and SkySat UAV would be integrated with partner systems and payloads in a newly-built, company-owned hangar facility in Easton, Maryland. WSGI's new 172,000 cubic foot hangar is to be located at the Easton Airport, near integration partner Eastcor Engineering. It would also be utilized to showcase the fully integrated STS-111 and SkySat UAV's at upcoming flight demonstrations, at the Easton Airport, which are currently in the planning stage.

## Listing Information

World Surveillance Group Inc. is a public company, trading as WSGI on the OTC Bulletin Board. There are approximately 23,000 shareholders, who own an aggregate 329,852,704 common shares as of March 21, 2010.

## Major Shareholders<sup>vii</sup>

Name of the holder	Shares Held (in mn)	% of Shares Outstanding
Michael K Clark	12.28	3.7%
Jonathan Leinwand	11.88	3.6%
Global Telesat Services	8.50	2.6%
Global Telesat Corp	7.78	2.4%
Thomas G. Seifert	4.47	1.4%

## Contacts

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## Management and Governance<sup>viii</sup>

The management team at WSGI comprises experienced professionals with a proven track record.

### Mr. Michael K. Clark

#### *Chairman*

Michael K. Clark, 53, served as President of the Institutional Products Group at Fidelity Investments, prior to WSGI, where his achievements included increasing new business growth by 300% and doubling profitability from 12 to 24% between 2007–2009. Previously, he held a series of positions at JPMorgan Chase Bank, including Global Head of Sales and Product, Trust and Clearing Services; Chief Executive Officer, Trust and Clearing Services; and Chief Executive Officer, Worldwide Securities Services. In the latter role, he augmented the Assets under Custody from US\$9.3tn to US\$16tn and increased annual sales production from US\$360MM in 2004 to US\$920MM in 2007. Prior to JPMorgan Chase, he was the Head of Broker Dealer Clearance at Bankers Trust. He holds a BS from SUNY Maritime College and an Executive MBA from New York University.

### Glenn Estrella

#### *President and Chief Executive Officer*

Glenn Estrella, 47, served as Chief Administrative Officer and Senior Vice President at Fidelity Investments, prior to WSGI, where among other accomplishments he realigned and restructured the Fidelity Family Office Business Group, a move that eliminated over US\$40MM in annual expenses and increased revenue growth targets 20%. Earlier, he held various positions at JP Morgan, including Senior Vice President and Head of JP Morgan Chase's Latin America and Australia Trust Company; as Chairman and Chief Executive Officer of JP Morgan Systems and Services Technology; and as Global Head of Client Services and Managing Director of JPMorgan Clearance and Agency Company. He had also filled several roles at Chase Manhattan Bank. Glenn holds degrees from Ocean County College, Pace University, and an alumnus of the Harvard University.

### Mr. Jeffrey Sawyers

#### *Chief Financial Officer and Treasurer*

Mr. Sawyers has over 30 years of diversified financial management experience. Mr. Sawyers served as the Corporate Controller for Tijuana Flats, a restaurant chain with about 70 corporate, joint venture and franchise restaurants, where he was responsible for all the external financial accounting and reporting systems, audit and tax management, and banking relationships.

From 2004 to 2008, Mr. Sawyers served as Director of Finance and Special Projects at Curascript, Inc. and before that he was the Assistant Controller at Priority Healthcare. In these positions Mr. Sawyers was responsible for, among other things, preparation of all Securities and Exchange Commission filings and financial reporting, corporate accounting and treasury functions.

### Ms. Barbara Johnson

#### *Vice-President and General Counsel*

Ms. Johnson was formerly a Partner in the Business & Technology Group at Choate Hall & Stewart, LLP, following a long career as a Partner and Associate in the Business Practice Group at Testa, Hurwitz & Thibault, LLP, both large, full service law firms in Boston, Massachusetts. Ms. Johnson specialized in advising early and later stage multi-national and international public and private companies across industries, including in the defense area, both as a legal and a business advisor.

## Products and Marketing

### Unmanned Aerial Vehicles (UAVs) - Sector Overview

#### Definition<sup>ix</sup>

UAVs are powered, aerial vehicles which do not carry a human operator, use aerodynamic forces to provide vehicle lift and can fly autonomously or be piloted remotely. These aircrafts can be expendable or recoverable, and can also carry a payload.



Source: United States Department of Defense

UAVs fall into two categories - controlled from a remote location or flown autonomously based on pre-programmed flight plans using complex dynamic automation systems.

Typically, their largest uses are in military applications – for performing reconnaissance as well as attack missions. UAVs are also being used in a small but growing number of civil applications, such as telecommunication, firefighting or non-military security work, such as surveillance of pipelines.

#### Endurance

A key performance feature of point of comparison between peers is the UAV's endurance levels – the maximum flight duration it can sustain. To quite an extent, this depends on the fuel powering the engine, which typically would be internal combustion, or solar or even electric. One of the major problems with UAVs is they have no capability for in-flight refueling.

#### Functions

UAVs are often preferred for missions considered "dull, dirty, or dangerous" for manned aircraft and encompass a wide variety of functions. The majority of these functions are some form of

remote sensing, central to the reconnaissance role most UAVs cater to.

These vehicles operate in diverse environments, in high risk roles, including but not limited to:

- border patrol
- surveillance
- reconnaissance and national defense
- atmospheric research (including weather and atmospheric gas sampling),
- scientific research
- oceanographic research
- geophysical research
- mineral exploration
- imaging spectrometry
- telecommunications relay platforms
- police surveillance
- survey and inspection of remote power lines and pipelines
- traffic and accident surveillance
- emergency and disaster monitoring
- cartography and mapping
- search and rescue
- agricultural spraying
- aerial photography
- weather reconnaissance
- flight research
- and fire fighting monitoring and management.

#### Latest Trends – LTA UAV

LTA aircraft have been in vogue for over a century now and provide confidence in the use of airships in critical intelligence, surveillance, reconnaissance and communications relay missions.

These vehicles include tethered aerostats and the simple balloon. The aerostats are air buoys, used primarily for the support of military/national defense applications, can carry a payload of thousands of pounds and endure up to 30 days. There are thousands of aerostats deployed today globally. Each LTA vehicle has its place, with its own strengths and weaknesses. The following table provides a brief overview of the various platform types:

Platform Type	Payload	Endurance	Station Keeping	Line-of-Sight	Issues
Balloons	8,000 lbs @ 134k ft	1 day	Require multiple launches	450 nm	Completely dependent on wind and weather
Aerostats	2200 lbs <15k ft	15-30 days	Tethered	150 nm	Tether vulnerable; not mobile; takes up critical airspace
Airships (Mid Altitude) Manned or Unmanned	20-100 lbs @ <30k ft	2 - 5 days	Maneuverable, allowing precise location and mission profile variation/control	200 nm	None

Source: Company

However, airships enjoy a rather sizeable niche within the greater field of LTA vehicles. These have had very limited use over the last 75 years, having been overshadowed by HTA systems.

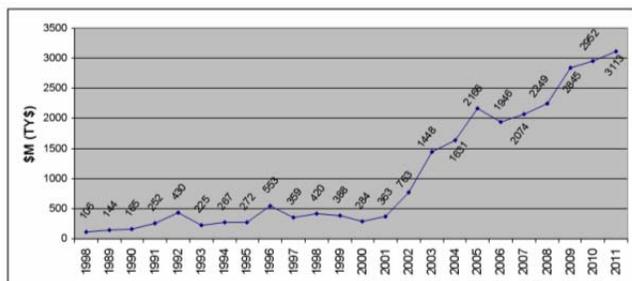
Currently, the advances in technology have made possible the construction of airships that can out-compete certain mission areas still supported by conventional aircraft.

The new technology is three-pronged:

- in the sphere of materials- an increased strength and reduction in weight
- in the area of avionics - impetus for the production of lighter and more capable avionics
- in the third area of energy storage and regeneration - new discoveries in the field of fuel gas, nano-batteries, solar power etc

### Market Outlook - Government Business<sup>x</sup>

The wide application of a UAV for reconnaissance purposes makes the military its primary market.



Source: Company

Between 1990 and 1999, the DoD invested over US\$3bn in Unmanned Air Systems development, procurement and operations. The figure has

risen to US\$6bn, since September 11, 2001, clearly making the WSGI target market/WSGI desirable. Over 9,000 UAVs are expected to be purchased over the next ten years, with inventory forecasted to grow from 675 in 2010 to 1400 by 2015. Over US\$2bn in lighter-than-air UAV contracts have been issued solely from the DoD. These estimates relate solely to the US military market and do not include any demand from other governmental agencies (Homeland Security, DEA, FEMA etc), international customers or commercial entities, thereby making the UAV market significantly larger even than the numbers set forth above.

Market Research Media, a leading market research firm, estimates that the US military market is set to grow at a CAGR of 10% between 2010 and 2015. The report further states that market size is expected to reach US\$62bn by 2015, with annual spending exceeding US\$12.7bn.

### UAVs as a Communication Relay

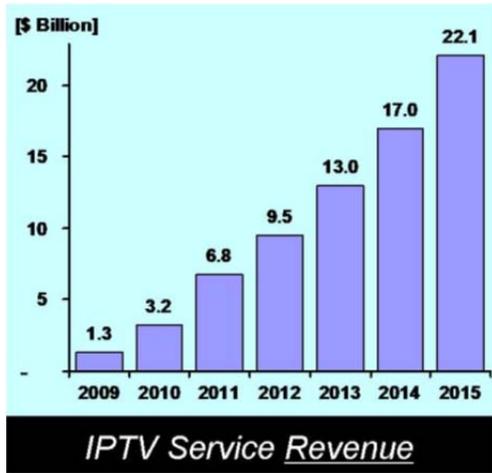
The Joint Vision 2010 envisages that by 2011, the existing and planned UAV capacities shall be able to meet only 44% of the total UAV requirement, to ensure information superiority. An earlier study, *Unmanned Aerial Vehicles as Communications Platforms*, dated November 4, 1997 observed, regarding the use of an UA as an **airborne communication node** (ACN) that:

- Tactical communication needs can be met much more responsively and effectively with ACNs than with satellites.
- ACNs can effectively augment theater satellite capabilities by addressing deficiencies in capacity and connectivity.

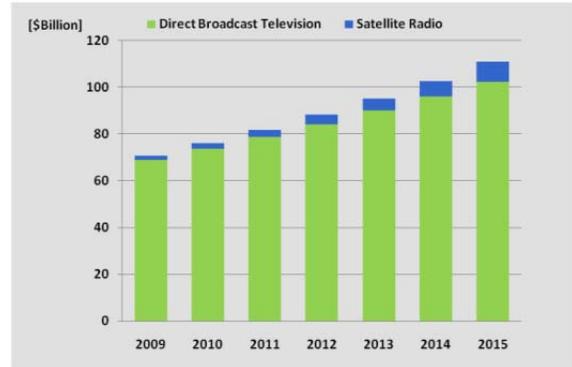
### Market Outlook - Commercial Application

Services including wireless broadband, IP-TV, and telecommunications services are a few of the potential commercial applications that are in demand around the globe. Where incumbent telephone and cable companies are struggling to extend the life of their landline infrastructure, they will eventually reach their capacity. The future of landlines is uncertain, as more and more people substitute mobile and wireless services for ones once exclusive to landlines. It is estimated that the IPTV service revenue shall grow exponentially from US\$1.3bn in 2009 to US\$22.1bn by 2015, thereby calling for a significant scale-up of services to this market segment.

Over the same period, the Direct Broadcast Television and Satellite Radio markets are also set to witness significant growth, from approximately US\$70bn (2009) to over US\$110bn (2015). The tables below depict the same:-



Source: Company



Source: Company

Despite its multi-purpose application in military and reconnaissance, civil and commercial UAV applications have been slow to appear, mainly because of concerns over the safety of flying unmanned aircraft in crowded civilian skies. Further, in the US, the commercial markets will only open once rules are established for the safe and effective operation of UAVs in national airspace, which is regulated by the Federal Aviation Administration (FAA).

## Company Products<sup>xi</sup>

All of the company's products are airships, relate to the efficient functioning of airships, are components of airships, or help transmit payload capabilities from air to ground.

The High Altitude class of prospective airships are generally referred to as HAAs but can also be called HAPs and HALEs. Similarly, the company also focuses on Mid Altitude (MAA) and Low Altitude Airships as well (LAAs).

### ARGUS ONE

**Altitude:** Mid Altitude (MAA)

**Atmosphere Range:** 10,000 - 30,000ft (3,050 - 9,150m)

The ARGUS ONE Mid altitude airship is intended to bring the concept of the STRATELLITE to lower altitudes. Named after the all-seeing, hundred-eyed Greek god Argus, the UAV is designed to be a customer's "eyes in the sky" even in remote locations.



Source: Company website

The ARGUS ONE is an unmanned autonomous airship with automated control for individual body modules. The 111-foot long, patent pending modular design provides a robust platform for a wide range of electronics suite applications. It provides many of the same features of the STRATELLITE for communications and ISR and can be used as a moving or a stationary platform.

### Features

- New airship design, significantly different from many of the LTA platforms that have been in operation for over a century

- Improved flight stability and aerodynamic control
- Integrated payload bay capable of carrying up to 30 pounds of high technology sensors, cameras or electronics packages
- Designed to perform low-to mid-altitude missions for short-to mid-durations of less than one week
- Rapid deployment from and rapid recovery to a standard box type truck
- Can be used as a moving platform for border or security/survey mission or as a stationary platform providing long term persistence over a single location
- Capable of supporting both tactical and strategic missions

### Technology

The technology for the ARGUS ONE was developed by Eastcor Engineering, a US Department of Defense (DoD) prime contractor, under contract for WSGI. The airship was specifically developed using technologies that take complete advantage of the microelectronics and command and control technologies protected under the International Traffic in Arms Regulations (ITAR) for potential US governmental customers.

ARGUS ONE will be flown with a tracking and monitoring system provided by Global Telesat Corp (GTC), a satellite based communications provider who entered into an LOI to be acquired by WSGI in 2011, which will process the data for monitoring through GTC's proprietary web-based online platform. All systems will be integrated into ARGUS ONE's pod bay, which is located at the front of the airship and can be attached or removed easily for rapid tactical launch scenarios and ease of mobilization.

### Potential and Advantages

The airship can wirelessly transmit critical live video and other information generated by its payload of electro-optical or infrared sensors, cameras or other high technology electronics directly to a ground control station or system.

It can be programmed to have multiple missions with a rapid change of equipment, shipped in normal size containers and can be readily deployed anywhere. The Navy envisions using the ARGUS ONE as an over the horizon

communications link with video feed as it follows a battle group.

ARGUS ONE's unique modular airship concept, platform stability, performance flexibility and design simplicity, confers the advantages of mission variety, complete sensor compatibility and cost effectiveness to its customers.

The ARGUS ONE has significant competitive advantages over existing manned aircraft, heavier-than-air fixed wing UAVs, tethered aerostats and balloons, or low orbit satellite alternatives. Key advantages include:

- Endurance of 2.5 - 5 days compared with leading UAVs which typically operate for 6-18 hours
- Rapid deployment from and recovery to a standard box type truck
- Mobility when not in use – no requirement of a huge and expensive hangar
- Low radar footprint making it virtual stealth since the payload bay located on the forward module of the airship is the only radar reflecting material on the airship.
- Significantly lower acquisition, maintenance and operation costs (view table below)

Platform	Type	Cost Flight/hour	Endurance	Op Cost p.a - 24X7 coverage	Acquisition Cost
AWACs	Boeing 707	\$20,000	11 h	\$175 M	\$200 M
JSTARS	Boeing 707	\$20,000	11 h	\$175 M	\$175 M
E-2C Hawkeye	Naval	\$18,700	4.7 h	\$163M	\$ 80 M
Global Hawk	UAV	\$26,500	35 h	\$232M	\$100 M
Predator	UAV	\$5,000	40 h	\$44M	\$12-18 M
420K TARS	Tethered aerostat	\$300-500	15-30 d	\$3.5M	\$20 M
<b>ARGUS ONE Airship</b>	<b>MAA</b>	<b>\$100-300</b>	<b>2-3 d</b>	<b>\$1.5M</b>	<b>\$3 M</b>

Source: Company

### Applications

ARGUS ONE is primarily used for communications and homeland and resource type security, both land and maritime based. Mission assurance through aircraft survivability, system reliability and low cost maintenance provide the basis for robust ISR services.

The market for the ARGUS ONE family of mid-altitude airships and the SkySat UAVs relates to the following applications, among others:

Governments, government agencies:

- Military
- Intelligence, Reconnaissance and Surveillance
- Border monitoring
- Drug enforcement
- High value asset tracking

Commercial Applications:

- Mobile communications system
- ISR platform
- Natural disaster instant infrastructure
- Nautical tracking for maritime shipping companies
- Oil pipeline monitoring
- Fleet vehicle maintenance, fuel theft, tracking
- Fleet generator operation diagnostic tracking
- Power grid infrastructure management
- Solar power infrastructure management
- Local vegetation production facility monitoring

### Current and Future Steps

WSGI unveiled ARGUS ONE to the public on March 28, following its recent filing for a provisional patent application in the United States for the new airship design.

ARGUS ONE UAV has successfully completed its initial series of flight tests to an altitude of 500 feet on April 19, 2011. The restricted, low altitude flight tests were conducted under tower control at Easton Airport by its technical partner, Eastcor Engineering.

The initial series of flight tests involved aerodynamic assessments of the Argus One's new airship design, its envelope and stability and propulsion systems. This series of low altitude flight testing in Maryland is designed to prepare the Argus One for its upcoming flight tests at the U.S. Army's proving ground facility in Yuma, AZ where higher altitude, untethered flight testing will commence. Once the Argus One airship design has been proven in these controlled tests, the Company expects to file for an experimental license from the Federal Aviation Administration ("FAA") that will enable the Company to perform more wide scale testing of its airship.

### SKYSAT

**Altitude:** Low/Mid Altitude (LAA/MAA)

**Atmosphere Range:** 10,000 - 30,000ft (3,000 - 9,000m)

The SKYSAT provides many of the same features of the STRATELLITE, for communications and ISR but is used as a moving platform for ISR missions or a stationary platform for communications.



Source: Company website

The SkySat mid-altitude airship features a semi-rigid, cigar based, non-modulating design. It is a traditional airship design that complements the ARGUS ONE family of airships and is designed to carry heavier payloads for durations of less than a week.

### Features

- Can be programmed to have multiple missions with a rapid change of equipment
- Can be shipped in normal size containers
- Readily deployment anywhere, as needed by government or business users
- Distributed loads, via lightweight structures
- Greater onboard power production
- Greater mission endurance of three to five days

### Technology

The airship's classic design, with a multi-chamber lifting gas management system, provides a robust platform for a wide range of electronics suite applications. Its loads are shared and distributed via lightweight structures. The resultant weight savings allows for greater mission endurance and onboard power production. It also permits integration of a large single sensor/telecommunications package.

### Potential and Advantages

Customers who prefer a conventional UAV design for various ISR applications is the typical target market for the SkySat. The SkySat is capable of supporting both tactical and strategic missions.

The rich heritage of the "Cigar" based airship concept, the stability of the platform, flexibility in performance and relative simplicity in design,

the SkySat brings all the advantages of mission variety, complete sensor compatibility and cost effectiveness to SkySat users.

### Applications

The SkySat is primarily used for communications and homeland and resource type security, both land and maritime based. Application in the Navy envisages using the SkySat as an over the horizon communications link as it follows a battle group.

The market for the SkySat UAVs relates to similar applications as the ARGUS ONE.

### Current and Future Steps

In Q2 2010, WSGI entered into a contract to sell a SkySat demonstrator to GTC for up to US\$1MM. Under the agreement US\$250,000 was paid in exchange for a 50% interest in the SkySat demonstrator to GTC. Further, WSGI must utilize the US\$250,000 for work required to prepare the SkySat for demonstrations in the US. GTC has an option to purchase the remaining 50% of the SkySat airship for US\$750,000 by December 30, 2011.

The company's recent acquisition of GTC is expected to bring an interesting dimension to the future of the SkySat program. Since inception GTC has grossed over US\$27MM in revenues and has operated with a positive cash flow and net profit every year. The company's recent LOI to acquire GTC is expected to enhance value through combining organic growth and strategic acquisitions, resulting in synergies and cost savings across the board.

### STRATELLITE

**Altitude:** High Altitude (HAA)

**Atmosphere range:** 30,000 ft (9,150m) and below

The STRATELLITE HAA is so named because it offers the functionality of a satellite in the stratosphere. The STRATELLITE was conceived to help solve infrastructure issues that plague many parts of the world, including the so called "last mile" (building expensive ground based infrastructure for very low density areas) issues.



Source: Company website

STRATELLITE is the largest of the WSGI UAV airships and is intended for high altitude long endurance missions, populating “near space” with surveillance and communications capability.

It is being designed to be able to keep a station in one location in the stratosphere, at approximately 65,000 ft (19,800 meters) for durations of 30 days to six months or more. 65,000 ft is the sweet spot in the stratosphere for optimal wind conditions to keep station using the least amount of power.

### Key Features

The STRATELLITE comes with the following features

- Revolutionary airship design
- Modular patent pending articulating, non rigid, design
- Communication area approximately 125,000 sq.m
- Planned stratospheric flight testing in 2013
- Services ranging from military (ISR and communications) to commercial (IPTV, Cell, Internet)
- Instant infrastructure to least developed country's (LDCs) or disaster areas
- 24X7X365 operation in the stratosphere
- Greater sensor resolution/detail
- Over 100 times more economical than terrestrial communications network deployment
- No signal lag time
- Can be brought down and serviced/updated unlike satellites

### Potential and advantages

STRATELLITE's presence in “near space” with high-tech sensors and communications suites offers enormous potential for both commercial and government applications. Whether hovering stationary at 65,000ft or flying a variety of mission profiles, the STRATELLITE offers many

of the features of satellites but with advantages of costs, sensor resolution, servicing and upgrades. Key benefits include:

- significant cost savings (it is miles, not thousands of miles away from its coverage area) and
- the ability to be cycled (flown) down for service and maintenance upgrades

The recent Discovery Channel series entitled 2057 featured a segment envisioning that the earth will be ringed by thousands and thousands of STRATELLITE type UAV airships providing state-of-the-art communications worldwide.

### Applications

There is a great need for voice, data and video information-transmission in the future performed by High Altitude Platforms in various fields;

- Border control, coast surveillance
- Force protection
- Over the horizon communication
- Mobile broadband communications
- Emergencies, use in disaster areas
- Marine radio service
- New traffic engineering systems
- Weather observation
- Water surveillance (pollution)
- Ozone and smog monitoring
- Radiation monitoring (UV and radioactive)
- Astronomic and terrestrial observation
- Documentation of conditions in the upper atmosphere
- Private communication services such as cellular phones
- Transmission of radio and television programming

### Partnerships

WSGI is currently working with multiple dedicated partners on WSGI's UAV program. These partners each contribute a unique set of attributes and all share the common goal of delivering a solution to the customer.

**a. L-3 Corporation, (NYSE: LLL) Command & Control System and Software a Division of L-3 Services, Inc.** under contract, L-3 has currently provided nearly US\$0.25MM in ISR equipment at no cost to WSGI for integration into the ARGUS ONE UAV. L-3 has also agreed to:

- provide their approved ground station
- execute operations for demonstrations of ARGUS ONE
- market the integrated systems to it's customers

- conduct demonstrations to various potential clients
- b. Eastcor Engineering** – currently company's main contractor for work on the ARGUS ONE and SkySat UAV. Eastcor interfaces with L-3 and carries out all technical work.
- c. GTC** – In Q2 2010 WSGI entered into a sales agreement with GTC for the purchase of 50% of the company's initial SkySat UAV, with an option to purchase 100% by December 31, 2011. Engineering and Electronics work is currently being conducted at Eastcor's facilities in MD, and the company expects to advance flight testing in 2011. GTC has recently entered into an LOI to be acquired by WSGI and is to be integrated as a wholly owned subsidiary. It is believed to be able to provide an ongoing revenue stream and specialized customer base to aid in the pursuit of government and DoD contract opportunities for ARGUS ONE.

## Argus MTS

The Argus MTS represents a new approach for aerostats which have been a very popular solution for ISR capabilities for U.S and foreign Governments around the world. The Argus MTS has all the characteristics of a standard aerostat but differs by utilizing the highly efficient Argus One modular designed body which can cope with winds more effectively.



Source: Company website

The Argus MTS is specifically designed for quick deployment. The whole system, including the deflated airship, is transported in a container on top of a vehicle (HUMVEE for military application). After attaching the payload to the tether line, an automatic sequence can be started, which inflates the aerostat and releases the tether until a preselected altitude has been

reached. The Argus MTS can be outfitted with various payloads consisting of electro-optical (day time) and night vision cameras, which have an effective surveillance diameter of about 150 miles at the blimp's operating altitude.

- Inexpensive, Mobile Tethered Solution (MTS)
- Prepackaged to be integrated into standard HUMVEE and deployed with 1 hr with 3 man team.
- Designed to hover at 3k feet for weeks at a time providing a persistent surveillance capability
- Simplistic approach to tethered aerostat technology, flexible, aerodynamic, articulating body can cope with weather more effectively than competition.

## WSGI's Target Market

WSGI uses proprietary technology in the mechanics and control process, which would limit its product reach to the US. The company is looking at primarily government organizations (military, security, communications, environmental, agriculture) and commercial broadband operators (telecoms, cable operators, Internet service providers, content providers, etc.) for deployment of its airships in coming years.

WSGI is engaged in the development of the STRATELLITE family of re-generatively powered HAAs with fully autonomous long endurance operation and the ARGUS ONE MAAs with fuel/gas powered, long duration (2-3 days). The manufacture and deployment of these airships are intended both for government/military and commercial use.

## Military/Defense/Government

HAAs are a relatively new business sector, with not many players offering a viable HAA long endurance airship. In April 2008, Lockheed Martin was contracted by the Missile Defense Agency to construct a prototype HAA, which was subsequently transferred to the US Army Space and Missile Defense Command (USASMDC) due to budget constraints.<sup>xii</sup> The USASMDC is continuing the development and demonstration of the HAA to align with the USASMDC mission.<sup>xiii</sup>

In the meanwhile, WSGI's STRATELLITE airship is expected to be ready for planned stratospheric flight testing by 2013. STRATELLITE applications for Military purposes

will be equipped with cutting edge sensors, digital communications technology, and advanced avionics and enables strategic and tactical intelligence gathering and 24X7 threat surveillance operations. These HAAs come bestow the following advantages:

- payload platform support
- cost-effectiveness
- computer controlled, GPS guided
- extended mission durations
- high altitude stratospheric (65,000 ft) operation and
- expanded operational and mission specific capabilities
- complement, communicate, and interoperate with "national systems"

The airship can be tailored to cater to a broad range of missions in the Government/Homeland Security agencies; due to the STRATELLITE's 125,000 sq. mile range, the company can provide mid-distance and near-shore Maritime Domain Awareness (MDA) including vessel tracking and cargo container surveillance; littoral surveillance for ports, waterways, coastal trails, and urban environments; ancillary border surveillance activity; and short-range optical/electronic surveillance including ground moving target indication (GMTI) radar for interdiction of narcotics, smuggling, and immigration challenges.

STRATELLITES can also inherently serve as communications/data providers across different platforms, host a common set of hardware to meet Multi-Agency requirements, and offer integrated capabilities for the tactical battlefield scenario.

However, the MAA UAV market is under exploited and offers potential for a model such as the WSGI ARGUS ONE. This market has generated extensive interest by the government/military and commercial sectors, with the US government offering substantial R&D awards to companies that are on the leading edge of HAA and related systems development. WSGI intends to compete for this funding and given the status of its patent-pending ARGUS ONE model, is well poised to capitalize on the opportunities presented.

### Commercial

As far as commercial applications are considered, as there is no competition, the company envisions a targeted approach to

secure appropriate service providers for respective markets.

WSGI plans to target telecommunication firms that need extensive receiver station infrastructure. The STRATELLITE is designed to cater to the mentioned need. The company's commercial efforts are designed to deliver a wide array of voice, data and video services, through its partners.

Commercial applications include:

- traffic and logistical asset management
- topographic mapping
- vehicle theft prevention
- security services
- pipeline monitoring
- aviation and boating services
- distance learning and
- real-time financial, entertainment and location based services

Arrowhead believes WSGI has enormous growth potential considering the demand condition in its markets and the wide spectrum of applications of its technology for the US military, government and commercial establishments.

## Risk Profile Analysis

WSGI has a moderately high risk profile, given the nascent stage of its operations. However, the company's recently-won financing commitment of US\$1.5MM from Space Florida, is expected to mitigate its otherwise risky prospect. Its key risks are that its flagship products – the ARGUS ONE and the STRATELLITE are both awaiting patent approvals with no guarantee as to approval. Further, it is dependent on technology partner Eastcor for the successful development and commercialization of its UAVs. Above all, WSGI's key risk lies in its financing capabilities – the company has a high debt position and negative working capital and operating losses. It has to raise additional capital, which might be expensive and difficult to obtain, given its current financial position.

However, given the recent Space Florida commitment, the LOI for the GTC acquisition and the prospects for its product pipeline, Arrowhead believes the company will be able to generate profits from 2013.

## Risk Assessment

### Operational Risk – MEDIUM

- WSGI is still in the early stages of product development, with only its SkySat family of products generating revenues and both the ARGUS ONE and STRATELLITE awaiting patent approval.
- The successful development of a commercially viable UAV may be hampered by a number of reasons, including:
  - failure to obtain the required regulatory approvals;
  - prohibitive production costs
  - competing products;
  - ineffective distribution and marketing

### Technology Risk- MEDIUM

- WSGI currently relies exclusively on its technical partner, Eastcor Engineering, for the development and commercialization of its airships and does not have any technical personnel on its payrolls. Any adverse change in the relationship could cause a significant delay in the company's product development and further postpone commercialization.

### Financing/Capex Risk - MEDIUM

- The company has received a financing commitment for up to US\$1.5MM from Space Florida, an independent special district, body politic and corporate, and subdivision of the State of Florida.
- WSGI currently has only US\$29,491 of cash and cash equivalents, as of FY2010. Working capital amounted to a negative US\$19.4MM and net loss stood at US\$9.8MM. It currently has no firm capital commitments, other than the US\$1.5MM financing from Space Florida.
- The company has high levels of indebtedness – debt at FY10 stood at US\$18.1MM. Pursuant to a Settlement Agreement entered into on March 22, 2011, US\$2.5MM of its debt was reduced. A high debt position could make it difficult for the company to obtain further financing, in addition to redirection of funds towards debt servicing rather than operations.

Furthermore, given its current cash position, WSGI would not be able to afford to make payment of all of its numerous debt obligations in cash unless it is able to raise additional funds.

- The company has only approximately 4MM shares of common stock available outside of what has been set aside for the GTC acquisition and potential financing arrangements. Virtually the company's entire authorized capital of 500MM shares is outstanding or reserved for other existing obligations. In addition to selling shares to raise capital to fund its operations, WSGI has historically issued shares of its common stock to satisfy debt and other obligations and employee compensation.

### Regulatory Risk – LOW

- The US Government and its defense departments and agencies are WSGI's key end markets. The company has not yet been qualified to be a defense contractor, nor has it done any business yet with the U.S. Government. If it fails to qualify, its revenue generation shall be under a cloud. On the other hand, if it does, WSGI will be required to comply with and will be affected by laws and regulations relating to the award, administration and performance of U.S. contracts. Government contract laws and regulations will impose added costs on its business and any violation of specific laws could result in the imposition of fines and penalties, the termination of any then existing contracts or the inability to bid on future contracts.
- The company products are subject to regulation by the Federal Aviation Administration (FAA), which currently does not allow any untethered flights by UAVs in commercial airspace in the US and is still evaluating how to address such flights. This increases R&D expenditure, by requiring the company to procure access to restricted airspace for testing and demonstrations of its airships

## Key Variable Analysis for Revenue Forecast

The key variables are the main quantifiable variables which influence the valuation of the company. The key variables can be exogenous (exchange rate, product price, etc.) or endogenous (production rates, costs of production) to the company performance. A low and high forecast is determined by Arrowhead for each variable. Each of the variables is considered independently for the purpose of this report because the final goal of the Arrowhead Due Diligence and Valuation Report is to state what the company is worth *at least* and *at most*.

### Variable 1 – Number of Units Sold

Arrowhead has considered the three flagship products – SkySat, ARGUS ONE and STRATELLITE to arrive at potential sales volume of the company. Based on company reports and estimates, Arrowhead forecasts the following installed capacity and timeframe in which the projects will start production.

Product	2011-2012	2013-2015	2016-2020	2021-2025
<b>ARGUS ONE</b>				
Low	1	4	10	20
High	3	6	15	30
<b>SkySat</b>				
Low	1	1	4	10
High	2	4	7	15
<b>STRATELLITE</b>				
Low	-	1	2	3
High	-	2	4	6

### Variable 2 – Contract Price per Unit

Based on SkySat sale to GTC in 2010, Arrowhead has calculated a low end cost per unit of US\$1MM and a high end cost of US\$1.2MM. Further, the company expects to realize US\$3MM for every unit of ARGUS ONE sold; a reasonable high estimate for the same could be US\$5MM. We also estimate that a prudent low estimate for the STRATELLITE platform would be US\$12MM and a prudent high estimate, US\$15MM. The company has a 100% interest in all its products.

Cost in US\$ '000	ARGUS ONE	SkySat	STRATELLITE
Low	3,000	1,000	12,000
High	5,000	1,200	15,000

### Variable 3 – Airtime, Equipment & Contract Charges

Arrowhead forecasts the following low end and high end price range for the company: -

Estimate	2011-2012	2013-2015	2016-2020	2021-2025
Low	10.0%	12.0%	8.0%	5.0%
High	15.0%	18.0%	15.0%	10.0%

## Variable 4 – Payroll and related taxes

With the size and operations of the company expected to grow in the near future, Arrowhead forecasts that the payroll and related tax expenditure would grow in the following range:-

Estimate	2011-2012	2013-2015	2016-2020	2021-2025
Low	6.0%	8.0%	10.0%	10.0%
High	12.0%	14.0%	16.0%	18.0%

## Variable 5 – Consulting Fees

Arrowhead forecasts that a prudent low growth estimate for consulting fees would be 20% in the first two years, and gradually decline to 10% by 2025; a prudent high estimate growth is assumed to be 30% initially and shall decline to 18%.

Estimate	2011-2012	2013-2015	2016-2020	2021-2025
Low	20.0%	18.0%	12.0%	10.0%
High	30.0%	26.0%	20.0%	18.0%

## Variable 6– R&D

Arrowhead forecasts that R&D expenditure shall reduce, with product maturity and progress. A comfortably low growth estimate would stand at 30% during the first couple of years and shall decrease to 10% by 2025, whereas a prudent high estimate would range between 35% and 25%, over the same time frame.

Estimate	2011-2012	2013-2015	2016-2020	2021-2025
Low	30.0%	32.0%	25.0%	20.0%
High	35.0%	36.0%	30.0%	25.0%

## Variable 7– General & Administrative

Arrowhead forecasts a prudent low estimate would be 10% for 2011 and 2012, with a gradual increase to 18% during 2021-2025. A reasonable high estimate would be between 15% and 22% during that period.

Estimate	2011-2012	2013-2015	2016-2020	2021-2025
Low	10.0%	12.0%	15.0%	18.0%
High	15.0%	18.0%	20.0%	22.0%

## Value –

The Fair Market Value for all of WSGI shares stands at US\$209.1MM to US\$776.1MM.

The Fair Market Value for a publicly traded share stands US\$0.63 to US\$2.35

### WSGI Corp Balance Sheet Forecast

<b>CONSOLIDATED BALANCE SHEET</b>	<i>all figures in '000 US\$, unless stated differently</i>		<i>Low bracket estimates</i>					
<i>year beginning January 1</i>	<b>2011E</b>	<b>2012E</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>	<b>2018E</b>
Total Current Assets	392	348	10,426	19,002	25,654	51,320	74,620	95,001
Total Non-current Assets	6,070	5,937	7,708	9,304	10,741	15,007	18,848	22,307
<b>TOTAL ASSETS</b>	<b>6,462</b>	<b>6,285</b>	<b>18,135</b>	<b>28,306</b>	<b>36,395</b>	<b>66,327</b>	<b>93,467</b>	<b>117,308</b>
Total Current Liabilities	20,994	22,376	24,034	26,025	28,413	30,562	33,034	35,877
Total Non-current Liabilities	1,500	4,400	3,700	3,000	2,300	1,600	900	200
<b>TOTAL LIABILITIES</b>	<b>22,494</b>	<b>26,776</b>	<b>27,734</b>	<b>29,025</b>	<b>30,713</b>	<b>32,162</b>	<b>33,934</b>	<b>36,077</b>
Total Shareholder's Equity	(16,032)	(20,491)	(9,600)	(719)	5,682	34,164	59,533	81,232
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>6,462</b>	<b>6,285</b>	<b>18,135</b>	<b>28,306</b>	<b>36,395</b>	<b>66,327</b>	<b>93,467</b>	<b>117,308</b>

### Important Information on Arrowhead Methodology

The principles of the valuation methodology employed by Arrowhead BID are variable to a certain extent depending on the subsectors in which the research is conducted, but all Arrowhead valuation research possesses an underlying set of common principles and a generally common quantitative process.

With Arrowhead Commercial and Technical Due Diligence, Arrowhead extensively researches the fundamentals, assets and liabilities of a company, and builds solid estimates for revenue and expenditure over a coherently determined forecast period.

Elements of past performance such as price/earning ratios, indicated as applicable, are present mainly for reference purposes. Still, elements of real-world past performance enter the valuation through their impact on the commercial and technical due diligence.

Elements of comparison such as multiple analyses may be to some limited extent integrated in the valuation on a project-by-project or asset-by-asset basis. In the case of this WSGI report, cash-flow forecasts are derived from the expected advertising revenue in coming years, with a high discount applied.

### Arrowhead BID Fair Market Value Bracket

The Arrowhead Fair Market Value is given as a bracket. This is based on quantitative key variable analysis, such as key price analysis for revenue and cost drivers or analysis and discounts on revenue estimates for projects, especially relevant to those projects estimated to provide revenue near the end of the chosen forecast period. Low and high estimates for key variables are produced as a tool for valuation.

In principle, an investor who is comfortable with the high brackets of our key variable analysis will align with the high bracket in the Arrowhead Fair Value Bracket, and likewise in terms of low estimates. The investor will also take into account the company intangibles – as presented in the first pages of this document for the analysis on strengths and weaknesses and on other essential company information. These intangibles serve as supplementary factors for adding or subtracting a premium in the investor's own analysis.

The bracket should be understood as a tool provided by Arrowhead BID for the reader of this report and the reader should not solely rely on this information to make his decision on any particular security. The reader must also understand that global capital markets contain inefficiencies, especially in terms of information, and that, on the other hand, corporations and their commercial and technical positions evolve rapidly: this present edition of the Arrowhead valuation is for a short to medium-term alignment analysis (one to twelve months). The reader should refer to important disclosures on page 25 of this report.

## Information on WSGI valuation

**WSGI Valuation Methodology:** The Arrowhead fair valuation for WSGI is based on the discounted cash flow (DCF) method of the three flagship UAVs, namely, SkySat, ARGUS ONE and STRATELLITE, and its recently acquired airtime and equipment business arm, GTC. The cash flow projections are derived using DCF.

**Time Horizon:** The time period chosen for valuation is ~176 months (2011-2025). While revenue is expected to ramp up significantly during the period 2013-16 due to the discount factor used, the later years are heavily discounted and have a marginal effect on the valuation. They are included to present a full project cycle situation.

## Underlying Business Plan

WSGI aims to penetrate the market of commercial and government customers by providing its unique aerial platforms to carry advanced Intelligence, Surveillance and Reconnaissance, (ISR) Sensor and/or Communications payloads. Its objective is to bring its first production model Mid Altitude UAV, ARGUS ONE, to market in Q2 2011 and thereby generate additional sales revenues for the company. It further aims to continue with the development of the SkySat UAV, its various larger Robotic UAV airships and its high altitude airship, the STRATELLITE.

WSGI has undertaken the following steps toward the accomplishment of its objective:

- Built a partnership with L-3 Services, Inc. to work jointly on preparing the ARGUS ONE UAV, so as to render in marketable by Q2 2011
- Further collaboration between the company and L-3, with Eastcor Engineering, for additional testing and demonstrations to potential Government customers.
- Entered into LOI to Acquire US Defense Contractor GTC, to whom the company sold a 50% interest in its SkySat program last year. GTC, a leading provider of satellite-based asset tracking and monitoring services for governments and commercial users, has also made equity investments in the company, the proceeds of which are being used to fund R&D
- Working with other defense contractor and technology companies including Globalstar., Elisra (Elbit Systems) and others
- Development of a long-term program based around renewable energy systems, with a view to have emissions-free vehicles. Some programs are envisioned to stay in the stratosphere for up to 18 months at a time, and are solar-powered

**Terminal Value:** Terminal value is estimated to depend on a terminal growth rate of 0%, representing the maturity, technology change and prospective competitiveness in the business.

**Prudential Nature of Valuation:** It should be noted that this Arrowhead Fair Value Bracket estimate is a relatively prudential estimate, the reasonable production from one of these assets, if completed, is heavily discounted (see Key Variables section). The valuation also discounts the eventuality of any of WSGI's products.

### **Key Variables in Determining WSGI's Revenue Estimates**

- Number of units expected to be sold, for each product category – ARGUS ONE, STRATELLITE and SkySat
- Estimated contract price per unit of each product sold
- Airtime, Equipment and Contract charges
- Payroll and related taxes, Consulting fees, R&D Expenditure and General and Administrative expenses

For more detail on key variables see Key Variable Analysis section of this report.

## Analyst certifications

I, Thomas Renaud, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security and the subject company.

## Important disclosures

Arrowhead Business and Investment Decisions, LLC received fees in 2011 from WSGI for researching and drafting this report and for a series of other services to WSGI including distribution of this report and networking services. Neither Arrowhead BID nor any of its principals or employees own any long or short positions in WSGI.

Aside from certain reports published on a periodic basis, the large majority of reports are published by Arrowhead BID at irregular intervals as appropriate in the analyst's judgment.

Any opinions expressed in this report are statements of our judgment to this date and are subject to change without notice.

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, any of the financial or other money-management instruments linked to the company and company valuation described in this report, hereafter referred to as "the securities", may not be suitable for all investors.

Investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary. Investors are advised to gather and consult multiple sources of information while preparing their investment decisions. Recipients of this report are strongly advised to read the *Information on Arrowhead Methodology* section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrate alongside the rest of their stream of information and within their decision taking process.

Past performance of securities described directly or indirectly in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from any of the financial securities described in this report may rise as well as fall and may be affected by simple and complex changes in economic, financial and political factors.

Should a security described in this report be denominated in a currency other than the investor's home currency, a change in exchange rates may adversely affect the price of, value of, or income derived from the security.

This report is published solely for information purposes, and is not to be considered as an offer to buy any security, in any state.

Other than disclosures relating to Arrowhead Business and Investment Decisions, LLC, the information herein is based on sources we believe to be reliable but is not guaranteed by us and does not purport to be a complete statement or summary of the available data.

Arrowhead Business and Investment Decisions, LLC is not responsible for any loss, financial or other, directly or indirectly linked to any price movement or absence of price movement of the securities described in this report.

## Valuation

Figures are in thousands US\$, unless indicated otherwise.

### WACC

Risk-free rate	3.4%	xiv
Beta	0.56	xv
Risk premium	6.0%	xvi
Additional Risk Premium	1.0%	xvii
Cost of Equity	6.9%	
Terminal Growth Rate	0%	xviii

### KEY VARIABLES

	No. of units sold 2011-2025	Contract Price per unit sold 2011-2025	Expenses 2011-2025
Max value	<i>Please refer to Key Variables section</i>		
Min value			

Time Period --->	0.75	1.75	2.75	3.75	4.75	5.75	6.75	7.75	8.75	9.75
Year beginning 1 <sup>st</sup> January	2011E	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E
<b>FCFE (High)</b>										
Net cash from operation	8,965	7,882	41,866	39,579	36,522	91,647	87,365	81,947	74,939	65,996
Capital Expenditure	(5,689)	(1,814)	(6,558)	(6,561)	(6,566)	(14,430)	(14,434)	(14,439)	(14,444)	(14,449)
Net Equity/ Debt Addition	1,500	3,000	-	-	-	-	-	-	-	-
Free Cash Flow to Equity	4,777	9,068	35,308	33,018	29,956	77,217	72,931	67,508	60,496	51,547
Discount Factor	0.95	0.88	0.82	0.77	0.72	0.67	0.62	0.58	0.54	0.50
Present Value of FCF	4,532	8,019	29,104	25,369	21,455	51,550	45,385	39,159	32,710	25,980
<b>FCFE (Low)</b>										
Net cash from operation	(1,344)	(2,530)	13,278	11,755	9,806	32,084	29,671	26,788	23,177	18,749
Capital Expenditure	(5,689)	(474)	(2,578)	(2,581)	(2,586)	(5,890)	(5,894)	(5,899)	(5,904)	(5,909)
Net Equity/ Debt Addition	1,500	3,000	-	-	-	-	-	-	-	-
Free Cash Flow to Equity	(5,533)	(4)	10,700	9,174	7,221	26,195	23,777	20,889	17,273	12,840
Discount Factor	0.95	0.88	0.82	0.77	0.72	0.67	0.62	0.58	0.54	0.50
Present Value of FCF	(5,249)	(3)	8,820	7,049	5,171	17,488	14,796	12,117	9,340	6,471

### ARROWHEAD FAIR VALUE BRACKET

	High	Low
Terminal Value (TV)	787,324	192,767
Present Value of TV	279,256	68,372
Present Value of FCF	486,344	140,555
Present Value of FCF + TV	765,599	208,928
+ Cash	10,495	186
<b>Equity Value Bracket</b>	<b>776,094</b>	<b>209,113</b>
Shares on issue ('000)	329,853	329,853
<b>Fair Share Value Bracket</b>	<b>USD 2.35</b>	<b>USD 0.63</b>
Current Market Price	USD 0.095	USD 0.095
Current Market Cap. (US\$)	31.34	31.34
<b>Target Market Cap. Bracket (US\$)</b>	<b>776.1</b>	<b>209.1</b>

xix *Undiluted*

## Notes

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- i Arrowhead Business and Investment Decisions Fair Value Bracket - AFVBTM. See information on valuation on page 26 of this report and important disclosures on page 25 of this report.*
- ii Source: Yahoo finance as of 25<sup>th</sup> April, 2011*
- iii 52 weeks to 25<sup>th</sup> April, 2011 Source: Yahoo finance as of 25<sup>th</sup> April, 2011*
- iv 3 months to 25<sup>th</sup> April, 2011 Source: Yahoo finance as of 25<sup>th</sup> April, 2011*
- v Source: <http://www.marketresearchmedia.com/2010/04/09/unmanned-aerial-vehicles-uav-market/>*
- vi Source: Company press releases*
- vii Source: Bloomberg as of 25<sup>th</sup> April 2011*
- viii Source- <http://ir.stockpr.com/wsgi/management-team>*
- ix Source: [http://en.wikipedia.org/wiki/Unmanned\\_aerial\\_vehicle](http://en.wikipedia.org/wiki/Unmanned_aerial_vehicle)*
- x Source: WSGI 10K 2010; Company website*
- xi Source: WSGI 10K 2010 ; Company website*
- xii Source: <http://www.globalsecurity.org/intell/systems/haa.htm>*
- xiii Source: <http://www.lockheedmartin.com/products/HighAltitudeAirship/index.html>*
- xiv Source: Bloomberg as of 25<sup>th</sup> April, 2011*
- xv Source: Bloomberg as of 25<sup>th</sup> April, 2011*
- xvi Source: Arrowhead BID estimate.*
- xvii Source: Arrowhead BID estimate.*
- xviii Source: Arrowhead BID estimate.*
- xix Source: WSGI 10K 2010, shares outstanding as of 21st March, 2010*