

**Instructions**

- ✓ Due by **Friday, May 16, 2014 at 3:00pm AZ time.**
- ✓ Entries that do not comply with these instructions will not be accepted. Please read carefully!
- ✓ Note that the ACA is subject to Arizona Public Records laws (A.R.S. §39-101, *et seq.*) – Please refer to the “Next Steps” document also provided with this application for more details.
- ✓ Complete this entire entry form using a **10-point font size**. Do not change this document’s margins or alter its format.
- ✓ **Your completed document must NOT exceed the following page limits: (A) one page company profile (this page); (B) ten pages of content for Parts 1 – 6 (on pages 2 – 11 only); (C) up to three OPTIONAL letters of reference/recommendation from advisors or industry experts, to be appended right after the application; and (D) OPTIONAL finalist pitch presentation slides, as discussed via separate correspondence, to be appended at the very end of the document.**
- ✓ You may change the relative sizes of the boxes’ lengths for Parts 1 - 6, but you must write your responses within the provided template. Recommended section lengths are provided.
- ✓ The bolded, black text in each of the boxes for Parts 1 - 6 are clarifying questions and content suggestions. We understand that you may not have answers to all the questions, but more complete applications tend to get better evaluations. If you wish, you may delete this bolded, black text in Parts 1 - 6 as you fill in the application.
- ✓ Save this file, plus any of the optional material you choose to include (described above), as a single PDF document no larger than 10MB. Please title your document “**company name\_AIC\_Spring\_2014\_Semi.pdf**”.
- ✓ **To submit:** Beginning October 24, 2013, upload your final proposal PDF document into the online platform, using the same login information that you used for the First Round. Please refer to the “Next Steps” document for details.
- ✓ The Arizona Commerce Authority reserves the right to remove applicants from this competition at our discretion.

**Company Profile**

Basic Information	
Company Name	World View Enterprises Inc.
Contact Name	Jane Poynter
Company Website	www.WorldViewExperience.com
URL of optional 5-minute video submission	http://vimeo.com/78265336

Sector (mark only one)	
	Advanced Materials
	Advanced Manufacturing
x	Aerospace / Defense
	Bio & Life Sciences
	Cleantech / Renewable Energy
	IT – Hardware
	IT – Software

Type an “x” in the left column of the above table that most closely matches your industry sector.

Funding History	Funding Needs
[Redacted Content]	

Other profile questions	
Affiliated university, accelerator and/or incubator, if any:	University of Arizona, University of Nevada Las Vegas
Legal form of company? (C-corp., S-corp., LLC, Partnership)	C-Corp
Intellectual property protection, if any	World View Trademarks; ParaWing: #61/768,183; capsule life support system: US20120183457A1

## Part 1: Executive Summary (recommended length 1 page)

World View's technology provides easy access to the stratosphere for hours, days, or weeks. Without this technology, this region of atmosphere/space is otherwise inaccessible to humans for more than mere minutes. World View makes transportation to the space frontier as accessible as flying on a commercial airplane, for all of us, for science, for humanity. The lower atmosphere, where planes fly, is home to more than a trillion dollar market. Now, World View is creating a new economy in the stratosphere. Using our deep expertise in extreme equipment design we are continually innovating to significantly drop the cost of access to space. World View's headquarters and laboratory are located in Tucson, Arizona and the launch site is in Page, Arizona. We expect to turn Arizona into the center of the stratosphere industry.

**What we do:** At World View, we launch people and equipment to the stratosphere and beyond. Half of our business focuses on space tourism; we will send passengers to the edge of space for a meaningful and moving experience. The other half of our business is devoted to serving industrial and research customers who need to launch people and payloads to the stratosphere for business and research purposes.

**Who we are:** Jane Poynter, CEO and Founder, is a Tucson resident of 25 years, who has a proven track record of building a thriving local business (Paragon Space Development Corp est. 1993). She has attracted management and advisory teams with world-renowned experience in luxury tourism, human spaceflight, aerospace engineering, earth and space science, and FAA regulation.

**Disruptive technology:** Currently, the technology used by World View is the only method that provides access to the stratosphere for multiple hours, days, months and ultimately years. World View's innovation plan will produce an ongoing series of inventions that will significantly lower the price of launching people and payloads into the stratosphere and into space. A lower cost access to the stratosphere changes the game for many companies who want access to the stratosphere. To mitigate technology risk, the initial launches will be done with thoroughly tested high-altitude balloon technologies that have been in use for decades.

**Business Model:** World View's business model includes two main revenue streams – B2B and B2C. The B2B customers are companies that send people and equipment to the stratosphere for industrial and research purposes. The B2C customers are individuals who wish to travel to the stratosphere as tourists for entertainment purposes.

**Market Conditions:** World View is turning the very expensive into the very attainable. The invention of the personal computer changed the computing market drastically. PCs made it possible to do heavy computing without having to purchase a hugely expensive mainframe. World View's far cheaper technology will allow people and businesses to access the stratosphere without having to use a rocket. This changes everything.

The space tourism market is now famous due to the excitement drummed up by companies like SpaceX and Virgin Galactic. Initially, space tourism will be possible only for the very wealthy, but as prices drop the market will develop to include a much larger subset of the world's population.

The industry and research markets are less obvious to the general public than space tourism. These behind-the-scenes markets include researchers who wish to collect data for research on solar events, atmospheric changes, weather patterns, and the stratosphere itself. Businesses are interested to use the stratosphere for communications, navigation, weather, and surveillance.

**Job and wealth creation in Arizona:** Anticipated hires in the next year: 22.

When World View is successful, Arizona stands to gain a growing company that includes sales, operations, high tech manufacturing, and R&D. Within a year, World View will stand up a US-based manufacturing facility dedicated to making the balloons that are critical to these flights. Launches will occur out of Page, Arizona, which stands to gain an influx of wealthy tourists. World View's headquarters and R&D are both located in Tucson, Arizona.

### World View's four main products:

1. Tycho 800 is a balloon-based flight system that flies up to the stratosphere and back down again. It serves as our 10% scale prototype flight system for tourism, and our minimum viable product for our B2B industry customers. Tycho 800 carries up to 800lbs of unmanned payload.
2. Tycho 8000 is a full-scale version of the same system. Tycho 8000 is capable of carrying 8000lbs of unmanned payload or the World View Capsule containing 8 people.
3. The World View Capsule can be flown by the Tycho 8000 system. The World View Capsule can take 6 passengers plus two crew members on flights to the stratosphere and back down to Earth. This is the vehicle used with tourists.

4. Atmospheric Satellite is the Tycho system modified to stay in the stratosphere for months so it can orbit earth carried by stratospheric winds, and will include navigation capabilities.

## Part 2: Go-to-Market Plan (recommended length 2 pages)

### Customer Development

World View has both B2C and B2B customers. B2C customers are tourists who are seeking a meaningful visit to the edge of space. Our B2B industry customers are companies and research groups that want to launch people and payloads to the stratosphere.

#### Tourism customers (B2C)

A single World View passenger ticket to the edge of space is \$75,000. Due to the ticket price, our customers are high wealth individuals.

Our target customers are experience collectors, those who take adventure and luxury vacations. Luxury travel is growing 50% faster and is now larger than sales for luxury goods. Our \$75k tickets are a standard luxury travel price: thousands of people every year spend this and more on cruises, private jet tours, heliskiing, climbing Mount Everest, seeing gorillas in Rwanda and lions while on an African safari.

We can divide our tourist customers into three different types: early adopters, value seekers, and space enthusiasts. The early adopters are sold on the idea that they will be the first of their friends to see the edge of space. The value seekers want to know that a ticket purchased now (2 years before they can actually take the trip) will save them money or will be somehow more valuable than a ticket purchased in 2016. The space enthusiast is simply fanatical about experiencing space. If the space enthusiast has the means to purchase a ticket, he is easily sold. Because these people are extremely wealthy, time is often more valuable than money. We are more likely to sell a ticket to a tourist customer with a quick text exchange instead of a lengthy presentation or conversation.

Filling our tourist customer pipeline requires: 1) brand awareness through targeted PR; 2) direct contact with customers at exhibits; 3) partnerships with entities such as Virtuoso travel agencies, American Express and airlines; and 4) our ticket-holders as ambassadors.

We use a public relations firm to leverage free media. We've had over 2.8 Billion media impressions since our media announcement in November, 2013, including articles in the New York Times, Wall Street Journal, Bloomberg, Aviation Weekly, and Forbes. Media exposure drives people to our website and from there we get inquiries about ticket sales. We alternate our PR efforts between luxury and tech media outlets

When we sell a ticket, we use our customers as ambassadors to help us connect with people in their network who might be likely to want a ticket too.

We have a series of technology and product rollouts that will begin in June 2014 with Tycho 800. Leveraging the news of Tycho 800's first flight will inspire excitement and a close of 10 more of our potential customers.

#### Industry Customers (B2B)

Industry customers are non-tourist customers that can be divided into research and commercial clients.

The research clients are groups like NASA, the DoE, DARPA, DoD, NIST, NSF, University researchers, and foreign government organizations who will be able to use our technology to run experiments and record data about the sun, stratosphere, weather, and earth. The World View management team and advisory board have well-established relationships with government customers around the world. Government and government-funded research groups are excited about the possibilities that World View offers in terms of accessibility and low cost. Many of these groups are approaching World View to discuss how they can get in line to use the technology as soon as it becomes available.

Commercial (industrial) clients are companies like Northrop Grumman, Ball, Google, Comcast, AT&T and others. These types of

customers have been reaching out to World View to inquire about World View technology and to discuss the impact that it might have on their service capabilities and bottom lines. Commercial clients generally wish to fly their own payloads on Tycho 800 or Tycho 8000 instead of using the World View capsule. When a business hires World View for an industrial launch, World View will provide the balloon and the launch facilities, processes, and team to get the payload into the stratosphere. Atmospheric Satellite is our navigable unmanned system that can circumnavigate the globe, carrying the payload around the world for such applications as communications, surveillance, remote sensing, and first response. Major communications and aerospace companies tell us that this product is a game-changer as it can replace the use of orbital satellites for certain applications because of its reduced cost and rapid deployment.

We have evidence that there is an industrial need for our technology. We have been approached by, and are in significant discussions with, a number of potential customers in the communications industry inquiring about major contracts. The early interest in our technology leads us to think that there is a huge and untapped market waiting for us here. World View will rely on the management team's strong experience in technical sales to develop inquirers into customers. Initial contracts could start as early as this year using our Tycho 800 system, including flying research payloads under the NASA Flight Opportunities program for suborbital and balloon-based stratospheric flights.

#### **Commercialization plan over the next 12 months**

Over the next 12 months we will continue R&D of the vehicle, flight system, and the passenger capsule. Tycho 800, which was initially built as a 10% scale test vehicle will be commercialized after testing is complete. Tycho 800 will be available to fly customer payloads before the end of 2014. Tycho 8000, the full-scale flight system for carrying the World View Capsule, will also be repurposed after R&D tests are complete; it will be used as a commercial vehicle for fly industry customer payloads. The balloon manufacturing plant will be prioritized to make balloons for World View, but can take orders from customers when available.



8000 and perform the first test flights. We will also begin to significantly grow the sales team by hiring a VP of Sales. Additionally, we will stand up a balloon manufacturing plant in the US that will reduce the risk of production scale problems than can arise when using an outside balloon vendor.

### Part 3: Market and Industry Analysis (recommended length 1 page)

#### Market Analysis

The FAA predicts that the B2C space tourism market will grow to over \$1B by 2022. Virgin Galactic, SpaceX and others are making strides in selling the promise of space tourism. Thanks to them, the market has been created ahead of our arrival. We address the non-rocket subset of the space tourism market. The non-rocket market segment focuses on tourist customers who want to enjoy the edge of space in a relaxed manner. These are the non-adrenaline junkies, those who are barred from rocket travel due to health and fitness limitations, and those who wish to travel with their families. The non-rocket subset of the space tourism market is estimated to grow to >750M by 2022.

#### The competitive landscape

The space tourism industry consists of a direct competitor (Zero2Infinity) and indirect competitors (SpaceX, Virgin Galactic, and XCOR). Indirect competitors are rocket-based companies. Direct competitors are other balloon-based companies. This is a small community world-wide; we are friendly with many of the people in competing companies.

**Direct competitors** - Zero2Infinity is World View's closest competitor for balloon-based space tourism. They have publicized that they are building Bloon, their high-altitude balloon vehicle. Their ticket price is twice World View's at \$150,000. They are keeping their development quiet, so we don't know exact details. Zero2Infinity is based in Spain. We are intimately aware of a few R&D challenges that anyone in this business will have to overcome. We know the world-wide limitations for R&D, vendors, and equipment. Success will be more difficult for them than it is for us due to a couple of unfair advantages that we possess. In particular, they do not have the technical depth that the World View team and its partner Paragon do with human spaceflight and high-altitude ballooning. We will begin manufacturing the balloon itself, which is something they are not able to do as easily as us as we have a relationship with the government-run TIFR to assist us in developing and testing balloon manufacturing facilities and operations. It will difficult and costly for them to gain such depth of expertise from commercial balloon manufacturers.

**Indirect competitors** – World View is highly differentiated from its indirect competitors, as they are all rocket-based providers, with high g-forces. Rocket-based tourism offers only a few minutes for people to see the Earth in space. World View offers a gentle flight with hours at altitude. Boeing, SpaceX and Virgin Galactic are the most prominent names in rocket-based space tourism. A fourth company, XCOR, is also developing a space tourism experience. SpaceX and Boeing are both developing a rocket to take passengers to low earth orbit. This is not available yet and won't be for the near foreseeable future. Virgin Galactic plans to rocket six passengers to 368,000 feet for a ticket price of \$250,000 (pre-sale price). Although the apex of the trip is technically higher than for World View, the view out the window is indistinguishable from that at 100,000 feet. The Virgin Galactic project is behind schedule by a number of years. XCOR's experience is for a single passenger who sits next to the pilot for the duration of the trip to 200,000 feet. A ticket on XCOR costs around \$100k.

#### How will you displace any incumbents?

There are no companies that are currently launching tourists to space. We would be surprised if our closest competitor, Zero2Infinity, was able to beat us to the first launch. However, we have planned for their success and created our strategy accordingly. Our strategy to displace them as the world-wide provider of balloon launches to the stratosphere lies with the balloon. We are aware of some upcoming manufacturing volume problems associated with the current vendors of high altitude balloons. World View's new manufacturing plant will allow us to have a steady supply of balloons that grows with our needs, and allows us to

dramatically reduce the cost of production. Unless Zero2Infinity does the same, they will still be dependent on the external vendors for their balloons.

#### **Distribution channel partnerships**

We have been exploring potential channel strategies with groups like Exclusive Resorts and Inspirato, we are also in active talks with United Airlines for a co-branding and first class ticket sales partnership. By offering World View Experience to members of these luxury membership groups, we will be able to connect with a highly targeted set of potential customers with much less effort on the sales side. Additional partnerships include other major airlines and luxury automobile manufacturers, with whom we are developing relationships for cross-promotion and access to their high-mileage high-wealth customers. A single airline with whom we are in discussions has over 600,000 such customers. We are already developing partnerships with potential partners in countries around the world to fill our international customer pipeline, and in preparation for when we expand to launch sites outside the U.S. This includes high-end casinos in Europe and Asia who are in need to exclusive experiences for their VIP customers.

#### **Part 4: Technical Product Description and Plan** (recommended length 2 pages)

##### **Briefly describe your product or service and summarize the value proposition.**

World View designs, builds, and operates airborne vehicles that travel between Earth and the stratosphere. Our balloon technology can spend hours, days, or even months in the stratosphere. No other technology can do this.

**Tourist experience:** Early in the morning, six tourists enter a comfortable passenger capsule that is affixed under a high-altitude balloon. When the vehicle is launched, it rises for ~90 minutes and during this time the passengers are free to gaze out the window, talk with each other, and even send messages to their loved ones on the ground through social media. The passengers stay at 100,000 feet in the stratosphere for 2 hours. While floating high above the Earth, they will enjoy favorite beverages and gourmet treats while they admire the unparalleled view. When the trip is over, the balloon vents gas to begin its descent. To fly home, the capsule rides under the wings of a parafoil (a parachute that can be navigated) and the pilot steers to a predetermined landing site. The balloon was released during the descent and a ground crew recovers it when it lands on the ground under its own control system. The capsule contains comfort accommodations ie. bar and a restroom.

The World View value proposition for tourists:

- A gentle trip to the edge of space for hours.
- A life-changing trip to see our planet in the blackness of space. A view that has previously been available only to astronauts.
- No special gear or training needed, and instead street clothes, with refreshments, music and access to social media to communicate the experience with loved ones at home.
- No health requirements or restrictions for age
- No intense pressures or environmental effects
- A family activity

**Industry payload launch service:** World View launches unmanned payloads to the stratosphere for research and commercial purposes. Payloads can remain aloft for a few hours or for months. We have four product choices for industrial customers: 1) Tycho 800 which handles 800lb payloads; 2) Tycho 8000 which handles 8000lb payloads, 3) Tycho World View Capsule which flies equipment and workers together; and 4) Atmospheric Satellite which can keep payloads aloft for months and circumnavigate the globe or hang in one place.

Atmospheric Satellite is what communications companies are currently requesting. This technology is a game changer. These companies want to replace the current way of doing things ie. telecommunications and sensor equipment circling the globe in low earth orbit on a satellite. Instead, this equipment will ride on our balloon technology to orbit the earth in the stratosphere.

The value proposition for business is:

- Much lower-cost method to do research in the stratosphere or carry payloads such as communications equipment to circumnavigate the globe. Orbital satellites capable of performing similar communications operations require launches from highly regulated launch facilities via expensive rockets. World View balloons can fly from many locations easily and inexpensively.
- Rapid deployment of payloads with preparation time in hours to weeks instead of months or years for rocket-launched low earth orbit satellites.
- Future capability to place equipment in the stratosphere for up to a year.
- New capability to have manned flights to the stratosphere using the World View Capsule for business purposes. This has never been done before.

## Technology Validation

### Remaining product development risks

#### Tourism product development

The tourist trip product is a combination of technology implementation and passenger experience, much like a luxury hotel's product is a combination of real estate and experience. The technology (Tycho 8000+World View Capsule) is being tested as described above. The experience side of our tourist product is being developed through conversations with customers, study of other luxury experience products, and reliance on our luxury tourism advisors. Tourist customer development is an ongoing process. Our first full-time hire was an Experience Manager whose role is devoted to connecting with and understanding the tourist customer.

Page, Arizona is our primary launch location in the U.S. as it has favorable weather. Eventually, we expect to have tourist launches in multiple places around the world. However, a tourist launch location is practical only if the weather patterns are predictable in that region since tourists prefer to know their launch date a few weeks or months in advance. A location with tricky weather patterns may not be suitable for tourist launches. We will have to research different locations to determine which will be added to our offerings elsewhere around the globe.

#### Industry launch product development

We launch unmanned payloads to the stratosphere using our four products: Tycho 800, Tycho 8000, and Atmospheric Satellite. We launch manned payloads using Tycho 8000+World View Capsule.

Tycho 8000, World View Capsule, and Atmospheric Satellite are all still in technical development. Product development will occur over the next few months as we continue conversations with industrial customers who are requesting launch services. Currently, we understand that industrial customers are most interested in Atmospheric Satellite as a replacement for low orbit satellites. This product development is customer-driven, which is good because we can rely on the customer to help guide development. The risk here is that this technology is highly disruptive to low orbit satellite technology. Disruptive technology often causes unexpected changes in the market.

World View's industrial product offerings were added to the business model because we were getting attention from serious potential customers on a level that was impossible to ignore. We have plans to onboard business development leadership to leverage and expand our current relationships with industrial partners.

### Competitive differentiation

World View uses safe and reliable balloon technology to comfortably take tourists to the stratosphere for a few hours. Compared to other space tourism companies, our cost to customers is the lowest. Unlike rocket-based companies, our experience is hours long, not just minutes. The calm nature of the flight, the longer duration of time in the stratosphere, and

the number of passengers in a capsule (6) makes World View the obvious choice for family trips, weddings, and other events. Similarly, we are the only choice for businesses and researchers who need to accompany their equipment as it goes to the stratosphere.

### **The World View unfair advantages**

World View has the benefit of a direct and intimate strategic partnership with Paragon Space Development Corporation. The founders of World View previously founded Paragon. Paragon is the leader in aerospace equipment designed to put living things in extreme environments. They are the only company in the world that has both human spaceflight and high-altitude balloon experience. This relationship allows Paragon to do contract R&D for World View. This capability and relationship is a huge unfair advantage.

We have a strong relationship with Tata Institute of Fundamental Research Balloon Facility (TIFR), the high-altitude balloon manufacturer. They are based in India and the company is owned by the government. They are the only company that manufactures balloons for human transport and are not allowed to manufacture them commercially, so they have started transferring their balloon manufacturing knowhow to World View.

### **Useful life span of the World View vehicles and parts**

High-altitude balloons are currently one-time use only, although we have plans to develop a reusable balloon. After each flight, the capsule will require a small amount of maintenance such as cleaning the windows and repairing any minor damage from landing. Each capsule is built to last 10 years. There will be some consideration made to upgrading interior design and external paint due to wear and tear. The parafoil (landing gear) lasts 1,000 flights.

### **Intellectual Property**

We own World View trademarks and have submitted a provisional patent application: 61/768,183 for improved parafoil technology. In the future we will own patents covering numerous technologies used in stratospheric launches and travel. We have an exclusive license from Paragon to use their patent for the Space Humidity Control System (US20120183457A1) that keeps our tourist customers comfortable at extreme altitude. World View has an agreement with Paragon that any intellectual property invented under contract for World View is owned by World View. This is standard for commercial contract R&D work.

### **Non-IP barriers to entry**

There are many elements of this business that would be very difficult for a competitor to replicate. Our team has decades of deep industry knowledge in aerospace and high-altitude science. Similarly, we have deep experience running a company in this industry including established relationships with vendors (balloon manufacturers, R&D, and luxury experience vendors). We have relationships with pilots and astronauts who are very specialized in training and limited in number around the world. We also have knowledge about the process or regulatory approvals with FAA and state airspace regulatory agencies. World View also has made significant progress toward customer relationships development with both tourism customers and research/industrial customers. We are developing deep knowledge in balloon design and operations, which is deceptively hard to master.

## **Part 5: Economics** (recommended length 2 pages)

### **Pricing and Customer ROI**

Careful pricing is key to success in this business with both our tourist and industry customers. We are dedicated to continually innovating new technologies that lower costs, making near space increasingly affordable over the next decade. During development of our current technologies, we focused on the final cost to our customers. This has allowed us to provide a launch at half the cost of our closest competitor. Market surveys of the space tourism market have shown that sales significantly increase as the price drops below \$100,000. World View priced its offering at \$75,000 to allow customers access to the edge of space for less than any other provider, and with longer time aloft.

### **Downstream value chain analysis**

**Arizona tourism:** Tourist launches are set to occur in Page, Arizona. This beautiful and rural desert town will experience an influx of patrons with deeper pockets than most. Our tourism customers are high wealth individuals who are used to spending large sums on luxury items, dining, and entertainment. If World View is successful, Page, Arizona stands to gain a long-term boom in economy. Similarly, our tourism and hospitality partners will gain high-end business through our activities.



**Innovations in worldwide communications:** World View's balloon technologies allow for multiple disruptive innovations in the communications sector. Downstream communications customers will be able to experience major advances in connectivity for data and voice transmission once we are serving the industrial market. World View providing a lower cost of launching communication equipment may result in consumers of cell and internet directly feeling changes in service and price.

**US manufacturing and R&D:** The US has seen a distinct loss in manufacturing and R&D jobs over the last few decades. World View will put a new balloon manufacturing plant in the US in the next year. High tech R&D is expected to continue many years into the future to lower the cost of launches significantly. World View will contribute significantly to economic development growth through the addition of many skilled manufacturing and high-paying technical jobs.

**Financial model summary for tourism**



**Describe any critical financial assumptions or milestones**

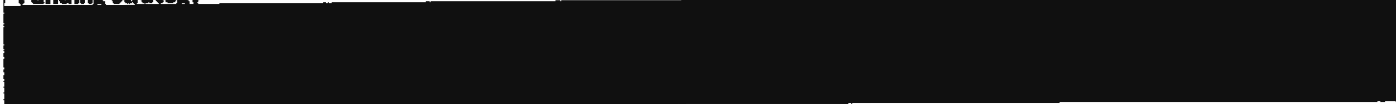


We are assuming a single launch site in the US, which will be in Page, Arizona. It is possible that we will have multiple launch sites around the world by 2018. Adding additional international launch locations could increase ticket sales due to more exposure in new tourist markets.

**Provide a draft high-level budget and brief budget narrative of funding priorities for use of the AIC funds.**

AIC Award Budget	Provide a budget narrative for each category below. It is helpful to identify functional area of expenditures. E.g. R&D, marketing, sales, etc.	\$ in 000s
<b>Personnel</b>	Three salaries. one balloon manufacturing manager and two balloon manufacturing technicians to develop balloon manufacturing processes, and transfer the existing manufacturing methods from India at TIFR to World View's plant. Salaries are budgeted for one year, plus taxes and benefits.	230
<b>Operating Expenses</b>	One trip to India and 5 visits vendors in the U.S.	19
<b>Total Funding Requested</b>		<b>249</b>

**Funding strategy**



View to begin work on the balloon manufacturing plant much earlier than was originally budgeted. Reliance on an overseas third party vendor leaves us open to the possibility that production stops and World View operations stop too. Owning and operating our own balloon manufacturing plant is powerful for us. It gives us the ability to ramp balloon production in time with our needs; to control the quality of balloons; and to begin R&D on reusable balloons sooner. Further, this allows us to gain an unfair advantage over our competitor, Zero2Infinity, who is reliant on outside vendors for their balloons. We originally scheduled to start developing the balloon manufacturing plant in 2015, but we have now determined that it is the highest schedule risk for all our offerings, and so it is important to start as soon as we can. The Arizona Innovation Challenge Award enables us to take this important step.

[REDACTED] We used that capital to accomplish significant R&D, regulatory, and sales milestones. This round allowed us to design, build, and test two prototypes. The 1% scale prototype (Tweety) was successfully flown for the first time in May. We were also able to complete development and initial flight of the 10% scale prototype. The 10% prototype (Tycho 800) will be converted to a small scale vehicle for industrial and research use (revenue stream) after we have used it for all of the necessary testing. On the sales front, World View hired an Experience Manager to focus on the presale of tourist tickets. We were also able to overcome important regulatory hurdles during this time. The FAA determined we would be regulated as a commercial spacecraft, which is a huge milestone as the arm of the FAA that oversees commercial spaceflight understands the space environment as was established to promote commercial spaceflight.

**Describe exit strategy – acquisition by suppliers, competitors, strategic partners, IPO, etc.**

#### **Part 6: Risk vs. Talent Narrative** (recommended length 2 pages)

**Please provide a very brief history or timeline of your company from its founding or incorporation to present.**

- August 2011, Paragon Space Development Corporation starts feasibility study and incubates World View as an internal project. The study verifies the technical feasibility for balloons to safely transport passengers to the edge of space and down again using a sealed capsule. It also validates the business viability.
- August, 2012, World View became its own legal entity. World View and Paragon retain a strategic partner relationship.
- December, 2012, Paragon wins a proprietary high-altitude balloon project and develops operations, know-how and IP that validates and improves the World View technical concept.
- [REDACTED]
- November 2013, the FAA determines World View will be regulated as a spacecraft. World View announces the company to the media. December, 2013, Mark Kelly is announced as the company's Director of Flight Crew Operations.
- January, 2014, we hired our first employee, an Experience Manager, to focus full time on Tourist sales. This enabled us to start pre-selling tickets the same month.
- March, 2014, significant talks start with industrial customers including a major communications and an aerospace company.
- April 2014 we launched our 1% scale setup (Tweety), which behaved very well in spite of high winds.
- We are prepared for the launch of the 10% scale prototype (Tycho 800) in June.

**Risk reduction milestones**

our Tycho products for our industrial customers as well.

**Briefly list and describe your key team members.** Jane Poynter, CEO, cofounded and was President of Paragon Space development Corp. that, for two decades has built spacesuits, spacecraft life support and high-altitude ballooning projects. She has received the Entrepreneur of the Year Award from the National Association of Female Executives. She was on the design team and in the first crew of Biosphere 2, and has flow experiments on the International Space Station. Astronaut Mark Kelly, Director of Flight Crew Operations, is a two-time Shuttle Commander and Navy test pilot. Dr. Alan Stern, Chief Scientist, is former head of science for NASA. Taber MacCallum, CTO, cofounded Paragon and was previously on the design team and in the first crew of Biosphere 2. He holds patents for space and diving technologies.

**Briefly describe any holes in your leadership team. What are your plans to address any recruiting needs in the next 12 to 18 months?** Over the next two years, World View will hire flight crews, pilots, balloon manufacturer technicians, sales team, a full management team, and expand our Arizona-based engineering team. With assistance from AICA, we will hire a balloon manufacturing manager to stand up our manufacturing systems, and balloon techs to test manufacturing processes in the next 12 months. Another key hire will be a VP of Sales to develop the sales process and sales team on both the tourist and industrial/research sides of the business.

**Briefly list and describe your key advisors, and their contributions to date.**

Philippe Bourguignon, CEO of Exclusive Resorts and former Chairman and CEO of Euro Disney, has been critical to developing pricing strategies for tourism. Milton Pedraza, Luxury Institute, has advised on our customer relations and passenger experience. Julian Nott, the father of modern ballooning, has advised on launch technology, balloon design and operations; Danny Ball, NASA's foremost scientific ballooning expert, selected Page Arizona for launch operations because of its exceptional weather; Michael Tanne, a technology business strategist, has advised on our business strategy; Pamela Meridith, Chair Space Law Practice at Zuckert Scouff & Rasenberger, developed our FAA strategy and helped get us approved to be regulated by the commercial spaceflight regime.



444 N. Capitol St. NW, Suite 837  
Washington, DC 20001  
15 May 2014

For: Jane Poynter  
World View Enterprises

Dear AIC Reviewers,

World View is a welcome addition to our growing community of space tourism businesses. Principals Jane Poynter and Taber MacCallum are breaking new ground in the industry both through new technology advances and through much needed changes in the regulatory environment.

It is a pleasure to count World View as one of the newest member companies of the Commercial Spaceflight Federation. They have already made significant headway working with regulatory agencies on updating policies. Jane and Taber understand that it is the responsibility of industry to help keep spaceflight regulation appropriate during times of fast paced technology advances. Founders, inventors, and engineers must help guide policy-making to allow the benefit of innovation to improve spaceflight safety.

World View has my enthusiastic support going forward. When they are successful, many people will have access to the experience of seeing the Earth from space. As a former astronaut I can attest that this simple vision is life-changing, and I have no doubt that the World View experience will have a positive ripple effect on our species.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Lopez-Alegria", written over the word "Sincerely,".

Michael Lopez-Alegria  
President  
Commercial Spaceflight Federation





Tuesday, May 13, 2014

Jane Poynter  
CEO and President  
World View Enterprises  
3481 E Michigan St, Tucson, AZ 85714

Dear Jane,

I am happy to provide this Letter of Endorsement for World View in its effort to apply for an award of funding through the Arizona Innovation Challenge.

World View has made staggering progress in developing a vehicle to transport tourists to the stratosphere using balloons. This technology is very promising for all that it might do in the future for tourism in Arizona as well as for communications and satellite companies.

The Arizona Technology Council (AZTC) is thrilled that World View is adding to the already strong aerospace industry in our state. Further, we are happy that World View headquarters are located in Tucson and that your launch site will be in Page. Arizona is strong in aerospace and we know that World View will be well supported as it grows provided it remains headquartered in Arizona.

Those of us at the AZTC look forward to following your continued progress and success. We already count you among the growing number of serial entrepreneurs in Arizona who are working hard to further develop our impressive high-tech economy.

We look forward to the benefit that World View's development and growth will have on high-tech and manufacturing jobs in Arizona. We expect very good things.

Sincerely,  
ARIZONA TECHNOLOGY COUNCIL

A handwritten signature in black ink, appearing to read "Steven G. Zylstra", is written over a light blue circular stamp.

Steven G. Zylstra  
President + CEO



MICHAEL F. HANNLEY  
PRESIDENT

May 16, 2014

World View Enterprises  
3481 E. Michigan Street  
Tucson, AZ 85714

Arizona Innovation Challenge Judges

I am interested in World View as both a local good investment and as a technology company that will benefit the state. Jane Poynter, CEO and President of World View, has been very successful in building Paragon Space Development Corporation with Taber McCallum. She is a proven businesswoman and an asset to Arizona.

As President of Bank of Tucson, I think hard about how our local businesses impact Arizona's economic development. Gems like World View don't come along every day. The responsibility lies with us, the service providers of Tucson, to have a responsibility to support World View and its potential.

With that, I give my vote of confidence that World View is about to grow into an undeniable force. I fully support the Arizona Innovation Challenge in granting World View a financial award. The judges can be sure that the award will increase the speed of World View's growth and will add more jobs to our economy faster.

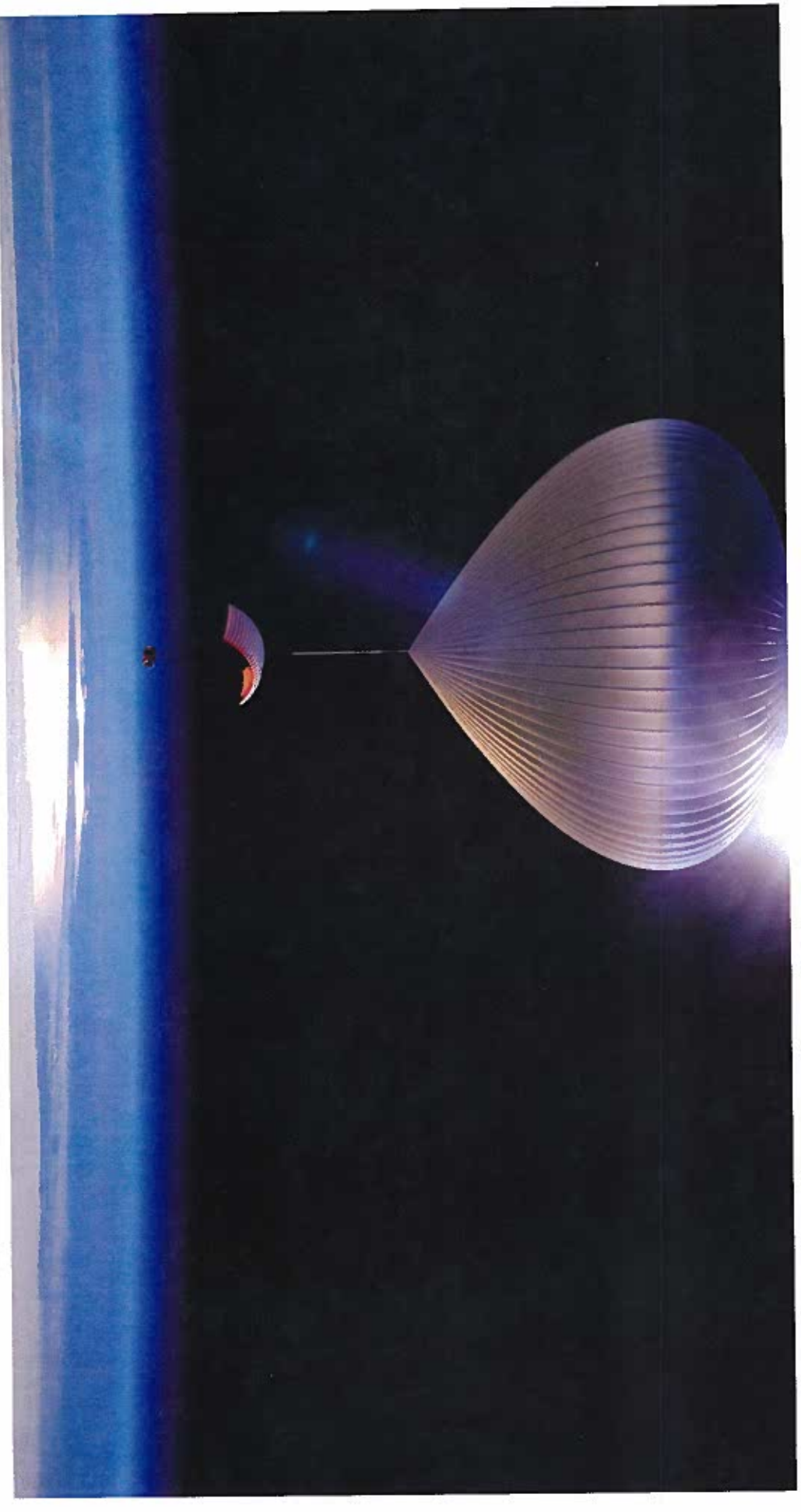
It makes sense for Arizona Innovation Challenge to support World View. The company will ultimately give back many times over to the state in terms of jobs, revenue, tourism, and a high-tech image. Granting this award to World View will be seen as evidence that the AIC knows how to pick'em.

Sincerely

Michael F. Hannley  
President



**Your view of the world will never be the same**



# Making the space frontier accessible

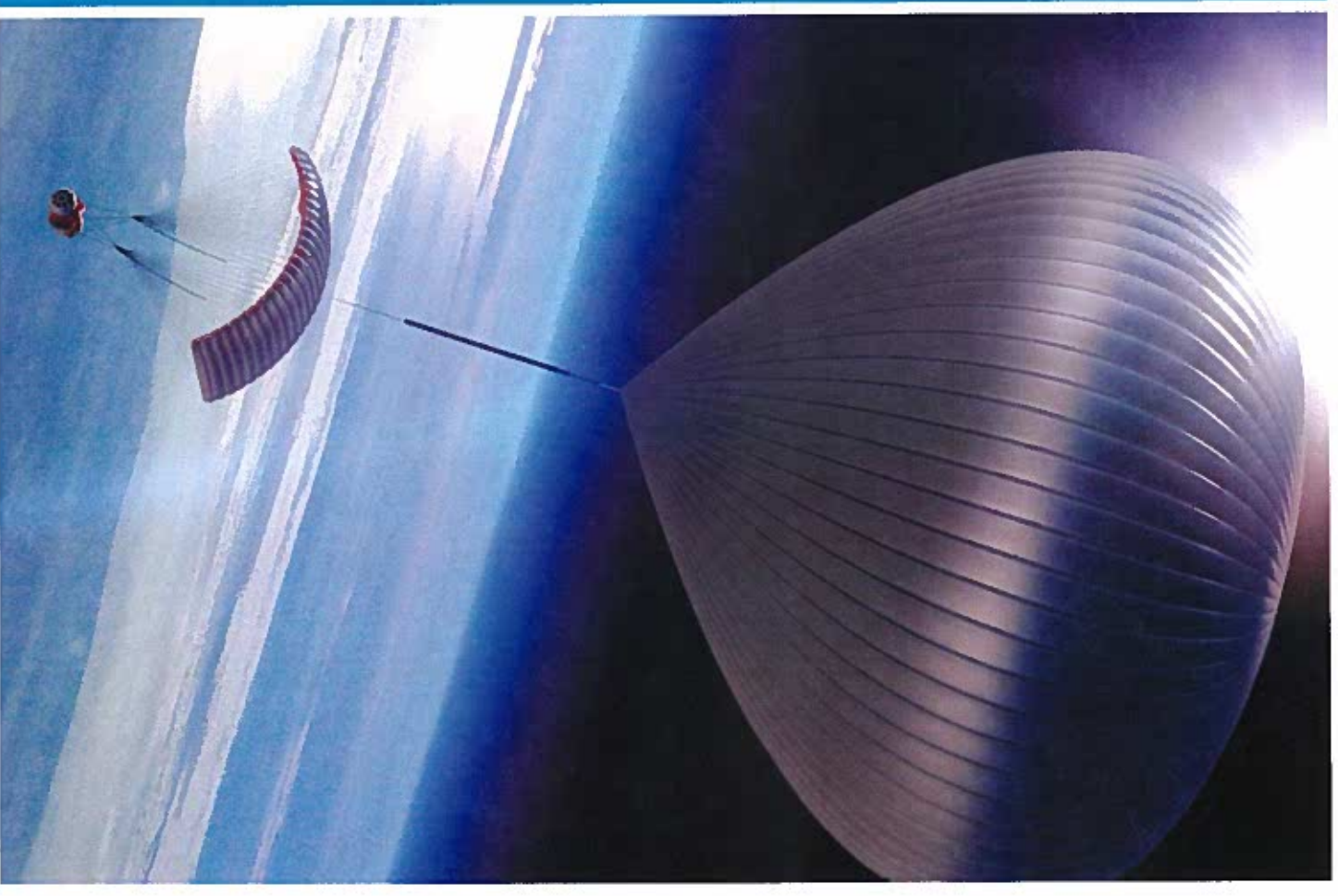
- We are making travel to the space frontier as accessible as flying on commercial airplanes for all of us, for science, for humanity.
- We are leading the emergence of a new economy in the stratosphere.
  - There is over \$1T business in the lower atmosphere where planes fly, orbiting the earth and in deep space, and currently ~\$0 in the stratosphere.
- We launch people & equipment to the stratosphere & beyond.





Large addressable markets  
for our high-altitude balloon  
technology:

- B2C: Space tourism
- B2B: Industrial launches  
and Atmospheric Satellites



# B2C: Space tourism, \$1B market<sup>1</sup>

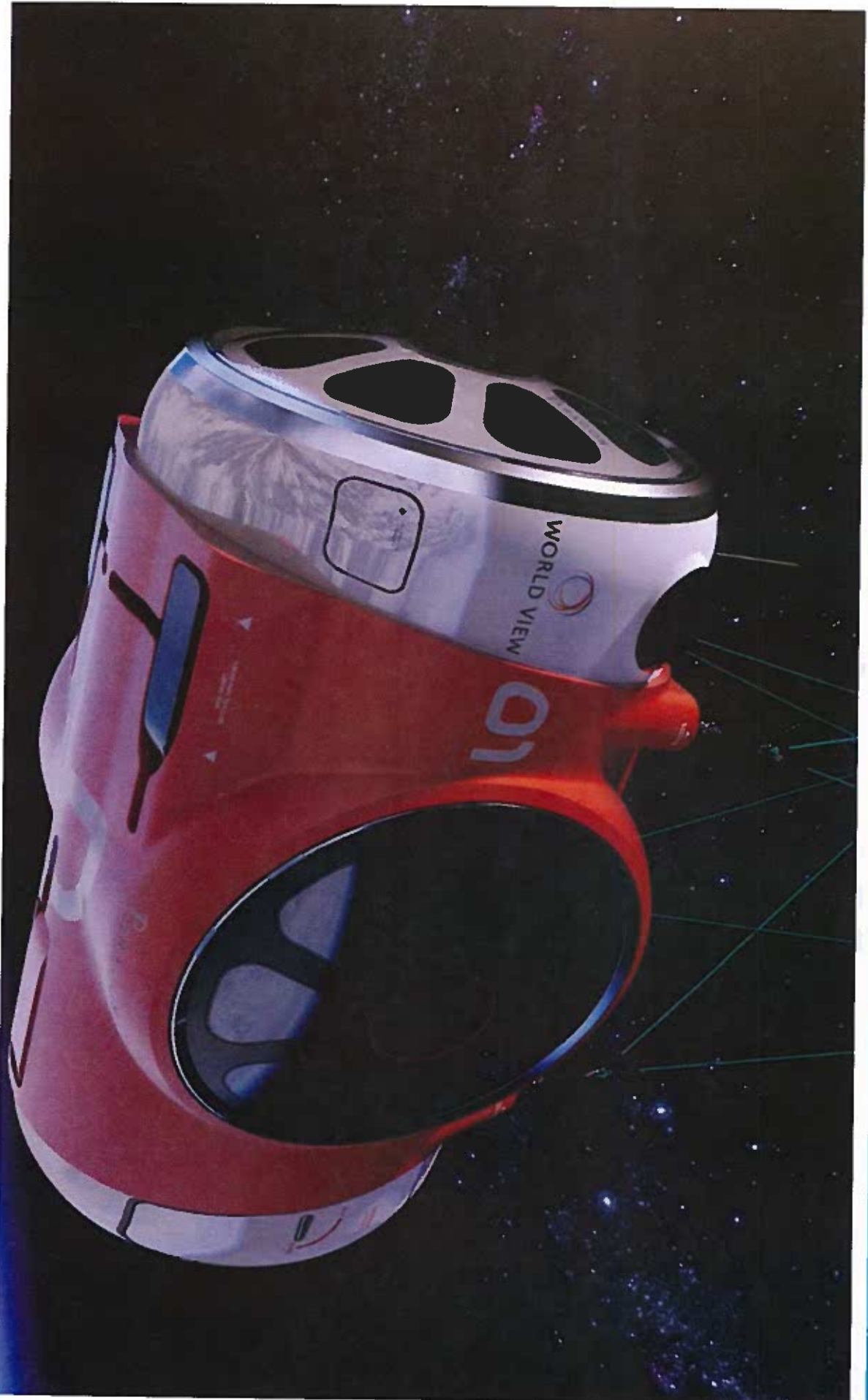


World View addresses a broader market than rocket-based suborbital flight:

- **Breath-taking view of Earth in space for hours** instead of a few minutes compared with rocket-based suborbital flight.
- **Voyagers are gently** lifted to 100,000' in a comfortable, sealed capsule.
- **No medical requirements**, no training, plus a refreshments bar and amenities.
- **6 passengers and 2 crew.**

1. FAA, March 10, 2012





Watch the World View Experience [here](#)



“If everybody could do that once, it would completely change the face of global politics... education, everything!”



English TV host James May significantly moved after a one-hour trip to only 70,000 feet in a spy plane







# WORLD VIEW



Lift off from the launch pad.

Higher than commercial jets (45,000 Feet).

Higher than U2 spy planes (75,000 Feet).

Reach altitude 90,000 feet minutes after launch. Float for 2 hours above 100,000 feet.

Start descending with the balloon.

The balloon separates from the capsule and floats to the ground, where it is recycled (50,000 Feet).

The ParaWing glides the capsule down to the landing site.

Arrive at the landing site. Total flight time is 4 hours.

Private aircraft returns passengers to launch site.



The distance between the launch and landing sites changes depending on the time of year (0-300 miles).

# World View started preselling \$75k tickets January 2014, and has a growing customer list



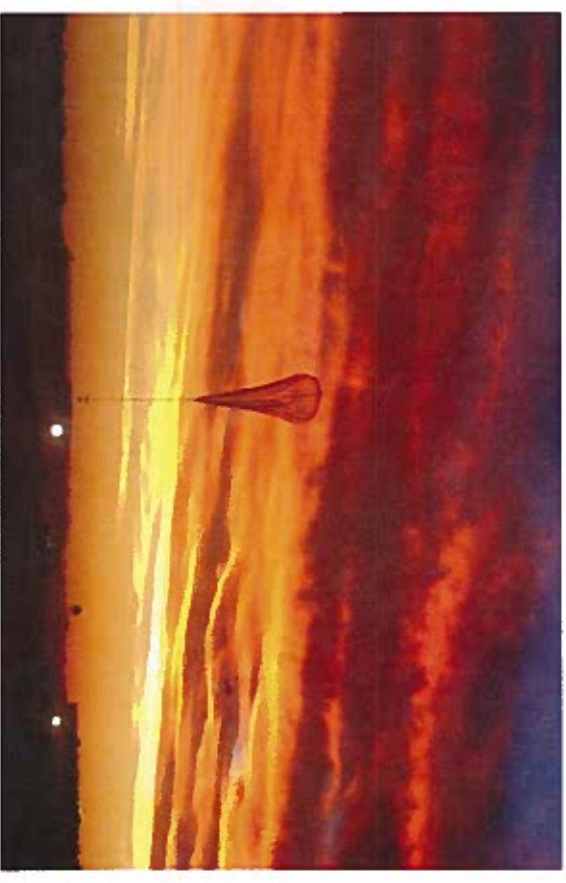
- Virgin Galactic has presold over 650 tickets now at \$250k (>\$130 million)
- Xcor (single passenger rides) has presold >200 tickets at \$95k (\$19 million)
- Neither has an operational vehicle





# B2B: Industrial launches, \$2B market (est.)

- **Atmospheric Satellites**
  - Our balloon technology (without capsule) carries instruments around the globe, similar to near Earth satellites but at a fraction of the cost
  - Orbit the globe or stay in one spot



Photos from 2013 World View Flight tests



# Atmospheric satellites: many applications



Communications



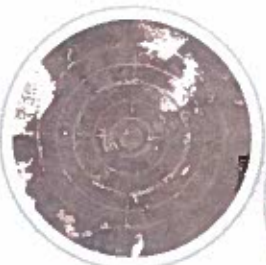
Remote sensing



Research



First response



Surveillance



Weather

## Other applications

- oil and gas pipeline surveillance
- natural disaster communications and remote sensing
- narcotics interdiction
- border patrol
- CO<sub>2</sub> & atmospheric monitoring
- Earth observations
- agricultural crop monitoring
- solar and astro- physics



# Rapid, affordable deployment

- Rapid deployment in hours to weeks instead of years for rocket launches
- Launch location flexibility instead of highly controlled and expensive rocket ranges
- Payload is recovered unlike orbital satellites
- Reduced cost



# World-class management & tech team



**Jane Poynter, CEO**

Co-founder, Paragon Space Dev. Corp, specializing in space technologies. Member of design team and first crew to live inside Biosphere 2 for two years



**Taber MacCallum, CTO**

Co-founder, Paragon. Member of design team and first crew to live inside Biosphere 2 for two years



**Dr. Alan Stern, Chief Scientist**

Former NASA Assoc. Administrator for Science, Assoc. VP Southwest Research Institute



**Astronaut Mark Kelly, Director of Flight Crew Operations**

Four Shuttle flights: piloted two, commanded two. Retired U.S Navy Captain and test pilot, flying over 60 different aircraft. 39 combat missions in Desert Storm



**Grant Anderson, Paragon Chief Engineer**

Co-founder and Chief Engineer Paragon. Led International Space Station solar array design. Paragon is WV's technical partner



**WORLD VIEW** ®

# Exclusive powerful partners



Paragon Space Development Corporation is the only known company in the world with extensive experience in human spaceflight *and* high altitude ballooning. Twenty years in:

- Spacecraft including Inspiration Mars, NASA's Orion Multipurpose Crew Vehicle and commercial spacecraft
- Spacesuits
- Hazardous environment dive suits
- Mine refuge chamber atmosphere control



WORLD VIEW®



# Our Advisors are global leaders

## Technical

- **Julian Nott:** Designed and flew first balloon capsule
- **Danny Ball:** World's foremost expert in massive balloon operations (NASA)
- **Dr. Jonathan Clark:** World's expert in physiology of high altitude manned ballooning (NASA)

## Luxury and travel

- **Philippe Bourguignon:** CEO of Exclusive Resorts, previously Euro Disney
- **Milton Pedraza:** Luxury Institute

## Regulatory

- **Pamela L. Meredith:** Chair, Aviation Law Attorney specializing in FAA licensing

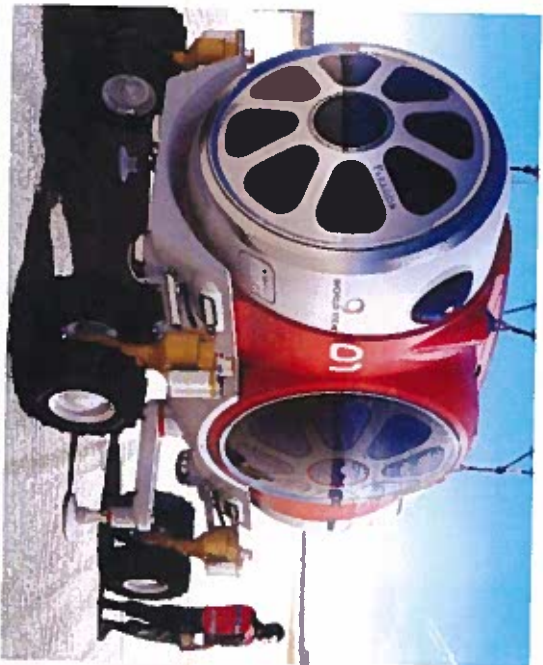
## Strategy

- **Michael Tanne:** Entrepreneur and strategist, e.g. ICON Aircraft and Moon Express





# Proven technologies ripe for innovation



The capsule uses  
existing spaceflight  
technology

We have  
successfully flown  
balloons to 100,000'

Similar parafoils are  
flown regularly by  
the military

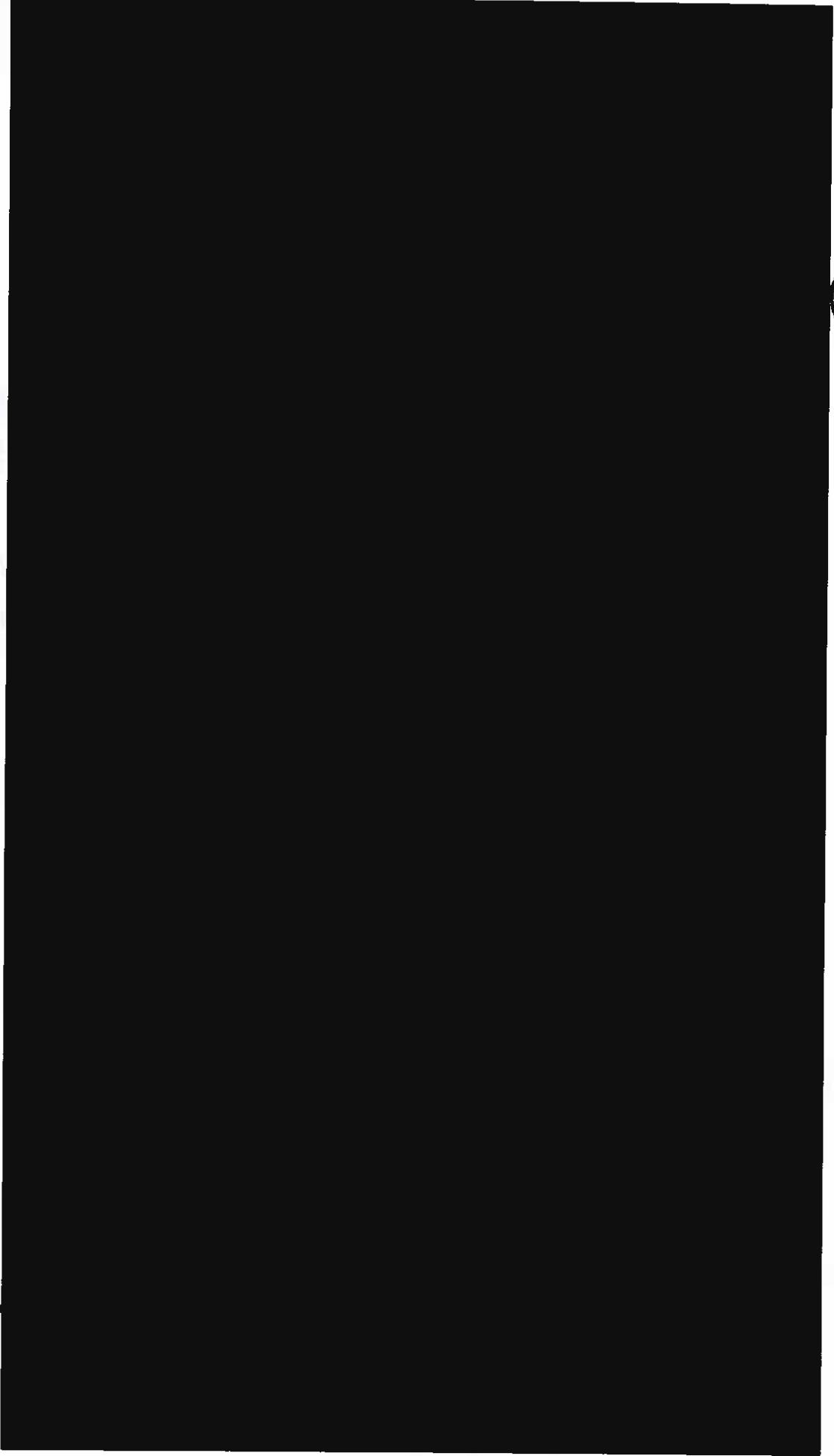
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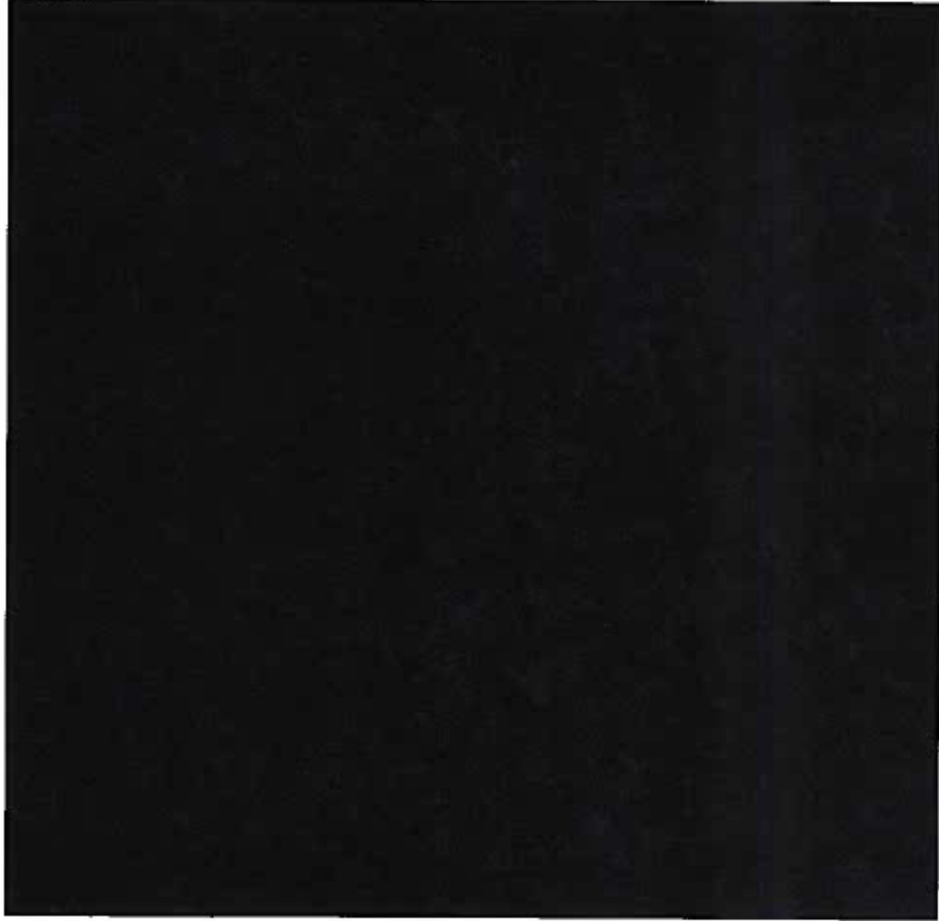


WORLD VIEW

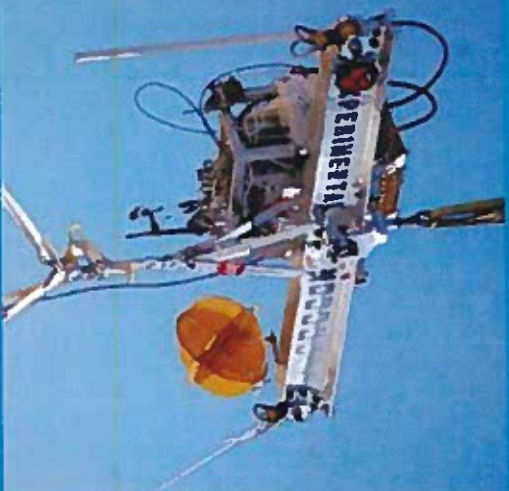






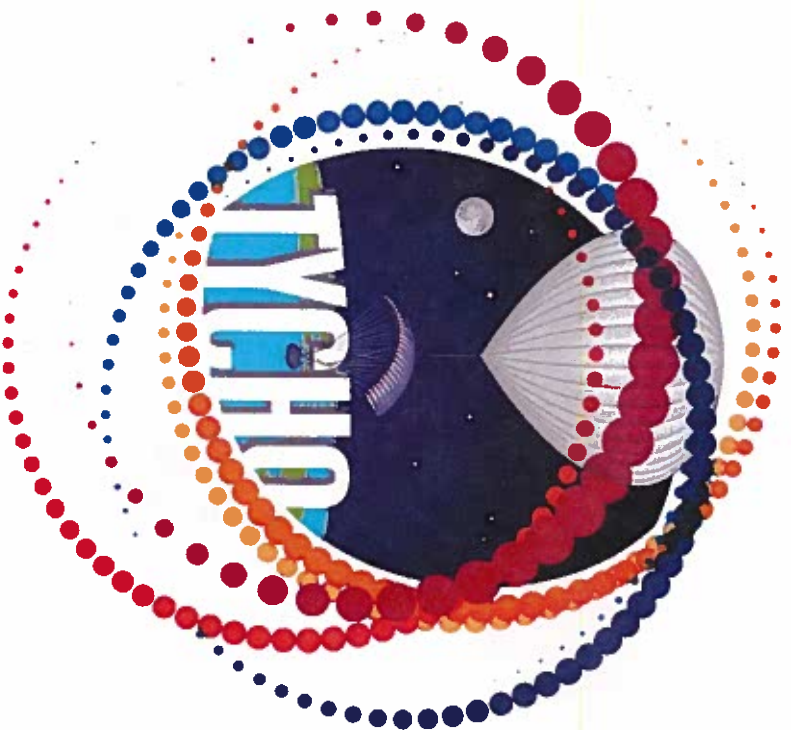


# Successful test flights to >100,000 feet





# Tycho, our first atmospheric satellite



- Tycho, our first atmospheric satellite product, Flies this spring to finish up the seed round funds
- Tycho is also the 10%-scale prototype of our system that will carry people



1.8 billion media impressions and counting

*The New York Times*



*The Telegraph*

THE  TIMES

 msnbc **FOX**

**Forbes**

**FRANCE  
24**

**CBSNEWS**

*The Washington Post*

**AVIATION WEEK**

**HUFF  
POST**

 腾讯科技

**THE WALL STREET JOURNAL.**



Please join us on a our voyage to the edge of space!

*"When we saw Earth rising in the distance... it made us realize we all exist on one small globe. "*

FRANK BORMAN, ASTRONAUT

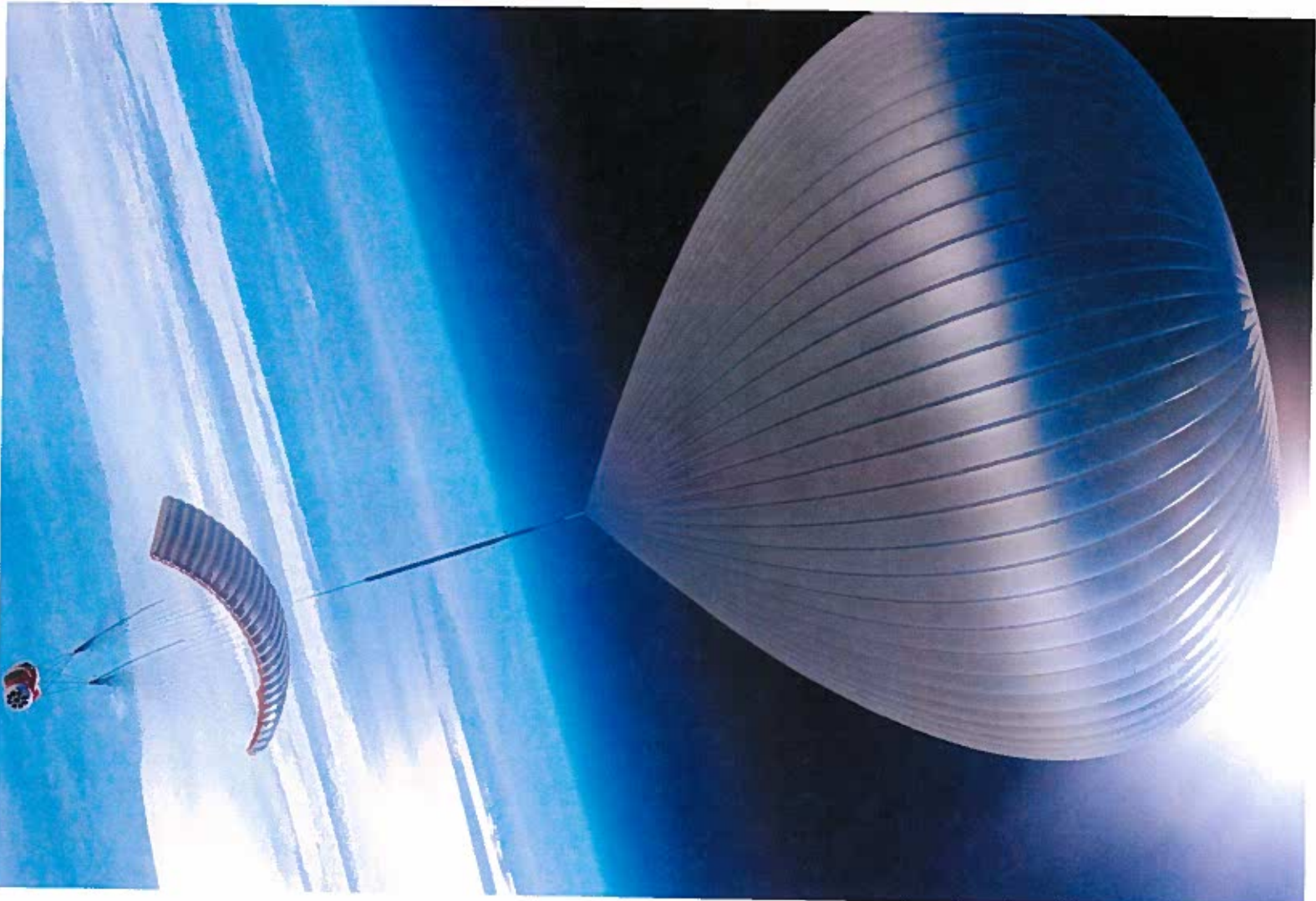
# World View Enterprises, Inc.



Jane Poynter  
CEO

520-271-8686

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Your view of the world  
will never be the same

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