



Space Operations Inc.  
Executive Summary 2025

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## PREFACE

Space Operations, Inc (SpaceOps) is a locally (Huntsville, Alabama) owned and operated company that was established to provide reliable, and technologically sophisticated spacecraft hardware focused on fulfilling the needs of carrying flight crews and vital cargo into space. The Corporation will develop, operate and maintain spacecraft vehicles for use by the U.S. Government, major prime contractors, satellite manufacturers, and other organizations or individuals with a requirement or a desire for space flight.

SpaceOps will use proven flight rated technologies and the latest modern avionics and flight systems available for integration into SpaceOps' newly manufactured flight vehicles. Each vehicle will be fully tested and certified for flight safety by the FAA.

This Business Plan outlines the business, market, technical, financial, and regulatory factors for growing SpaceOps into a robust and substantial corporation. It is important to recognize however, that this plan is only a point of departure for what will necessarily be a dynamic process in a rapidly changing marketplace. While the authors of this plan have exercised diligence in their efforts and are confident that the scenarios described herein are reasonable and feasible, we have not carried out all of the final negotiations, agreements, and other detailed steps that will be necessary to implement this Plan. It is likely, therefore, that the implementation of the plan will be faced with opportunities and decisions that could differ from the exact conditions and precise sequence of events we have described.

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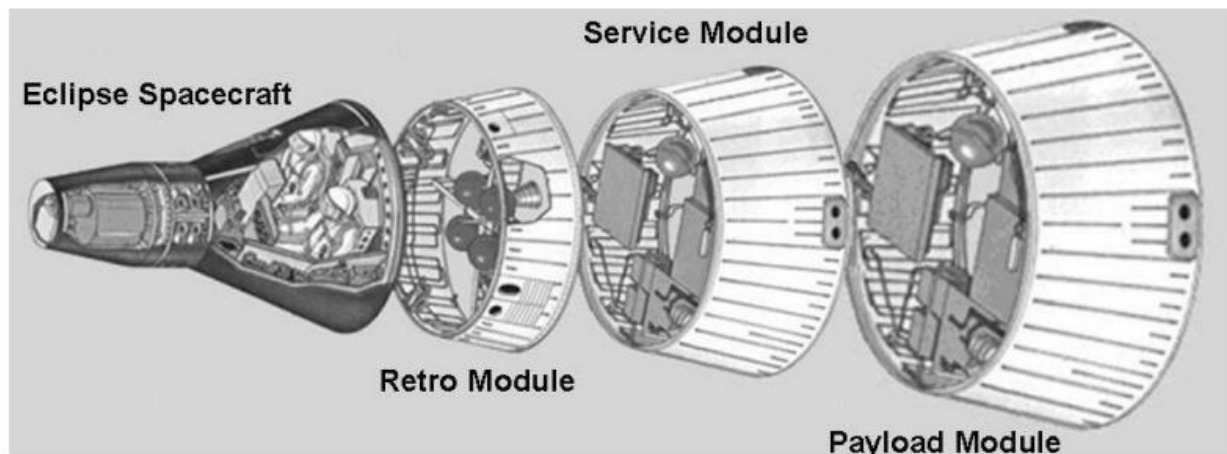
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## Executive Summary

Space Operations, Inc (SpaceOps) has been established to satisfy a growing worldwide demand for reliable, affordable, and high quality spacecraft vehicle capacity for carrying flight crews and vital cargo into space. This Business Plan represents SpaceOps' business strategy and objectives to become operational in an emerging and dynamic space flight marketplace. The Plan contents have been developed to provide evidence of the validity and soundness of this endeavor

### Concept

SpaceOps will utilize previous flight rated and proven technologies to form the basis for manufacturing spacecraft vehicles, and will incorporate the latest modern avionics and flight systems for ensuring safety, reliability, and economical operation. Utilizing the best technology and lessons learned from NASA's Mercury, Gemini, and Apollo Programs will help to develop the new design for SpaceOps' soon to be manufactured spacecraft "Eclipse". The spacecraft will be designed to carry two crew members able to conduct Extra Vehicular Activities (EVA) once in orbit. The spacecraft will be able to carry approximately 40,000 pounds of cargo, depending on the ultimate weight of the spacecraft and the booster requirements.



The business model is built to solve the problem of 'blank sheet design' that all other industry players battle. The Eclipse spacecraft will be a 21st Century version of the Gemini. The structure will be nearly identical to the original NASA plan with avionics and electronics substituted for modern 'off-the-shelf' products that need only be integrated. The research and development activities which typically take decades and billions of dollars have already been completed. In fact, the Gemini has flown thirteen times previously and is already man-rated. SpaceOps has 90% of the original plans converted to a 3-D CAD model. Phase 1 of the business model is approximately 50% completed.

SpaceOps could enter into a Space Act Agreement with NASA. The agreement could allow SpaceOps to engage NASA facilities, technicians and engineers for some of the manufacturing and system engineering work on the project. The NASA space flight centers, especially Marshall in Huntsville, Alabama and Johnson in Houston, Texas, have many hundreds of available engineers and technicians that could be included in the agreement. Additionally, they have specialized manufacturing processes and assembly

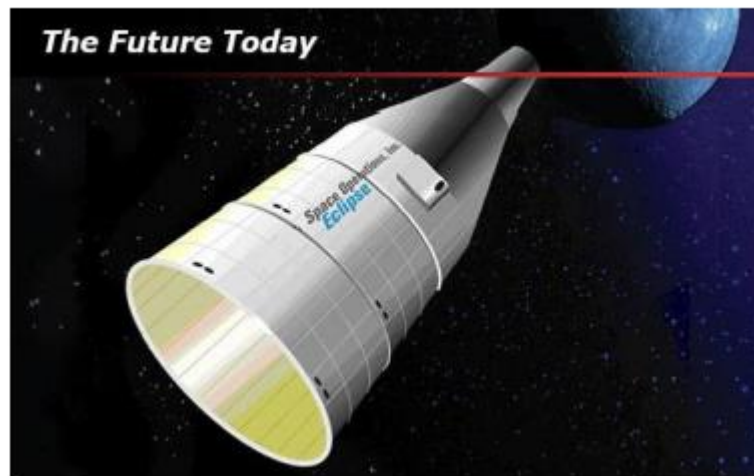
facilities that could be available for rent. SpaceOps was established to fill a significant void of readily available modern-day spacecraft in the United States. SpaceOps' Eclipse spacecraft will offer an economical and safe alternative for U.S. Government agencies, prime contractors, satellite manufacturers, and other organizations or individuals having a desire or requirement for space flight. Launch operations will be conducted by proven, certified contractors that have the experience and capacity for safely launching a fully loaded (including crew and cargo) Eclipse spacecraft into orbit. As a result of outsourcing the launch role to a major contractor, SpaceOps can concentrate on crew flight training, planning cargo capacity, and preparing flight manifests, and will as a result, avoid the expense of maintaining a launch operation on a daily basis. In addition, by outsourcing the spacecraft manufacturing, SpaceOps can avoid spending millions of dollars on facilities and equipment infrastructure and engineering manufacturing expertise.

## Mission

SpaceOps' mission is to ensure that reliable, technologically-sophisticated, competitively- priced flight certified spacecraft are developed and properly maintained while performing their assigned space mission. The company will provide a carefully selected array of technologies that are capable of meeting the stringent requirements of traveling into earth orbit. SpaceOps will emphasize affordability, reliability, safety, customer service, and responsiveness in responding to customer's space requirements.

## Background

SpaceOps is a professional spacecraft services company providing support to government agencies, foreign nation space programs, major corporations and other users with a requirement for traveling into earth orbit. Our broad base of expertise enables us to manage the complicated aspects of spacecraft in orbit services from design and construction, through implementation, operations,



recovery, and maintenance. Our experience with innovative technologies, combined with attention to quality and detail, enables us to design and implement a state-of-the-art spacecraft and provide space travel services for our customers on schedule and within a competitive price range. There continues to be a major demand for orbital space travel. This growth is in part, a result of the explosive use of satellite launches by other countries now entering into competition with the United States. As the demand for space travel and maintenance of Space Station systems and satellite repair grows, so does the need for quality and price-competitive manufacturing of new spacecraft vehicles. Customers are demanding more dependable, economical, and trustworthy spacecraft companies that can provide the services necessary to meet their requirements in orbit while maintaining and enhancing their business profitability. By utilizing existing proven and tested designs from previous NASA Programs, SpaceOps will be able to save hundreds of millions of dollars, and will be able to offer its customers an affordable inorbit alternative to relying on the Russian Soyuz spacecraft.

## The Company

Although officially founded in January, 2011, as a “C” corporation, SpaceOps has been in the planning and development stage since CY2006. The founders have been actively proving the concept of developing a spacecraft that is safe, reliable, and economically efficient. Once the planning for developing the spacecraft was complete, and the feasibility of the methodology and concept proven, the founders officially incorporated the company. The company is privately held by a group of investors/shareholders, officers, and Board of Directors. The company’s primary goal is to provide spacecraft services that are either not readily available or not available at a reasonable cost and within a reasonable time frame. To meet this challenge, SpaceOps will:

- Partner with Launch Operation Contractors and Hardware Manufacturers in offering spacecraft services.
- Leverage the best of current technology, thus creating a spacecraft that is reliable, capable, cost effective, and of the highest quality.
- Fully utilize the benefits of new technologies that are not widely employed by existing spacecraft developers and/or were not available two or three years ago.
- Carefully select target market segments and tailor the range of service offered to those markets.
- Establish credibility, confidence, and long-term customer loyalty by fostering the rapid development of a fully-redundant, high capability spacecraft that is specifically designed for satisfying and meeting in-orbit requirements

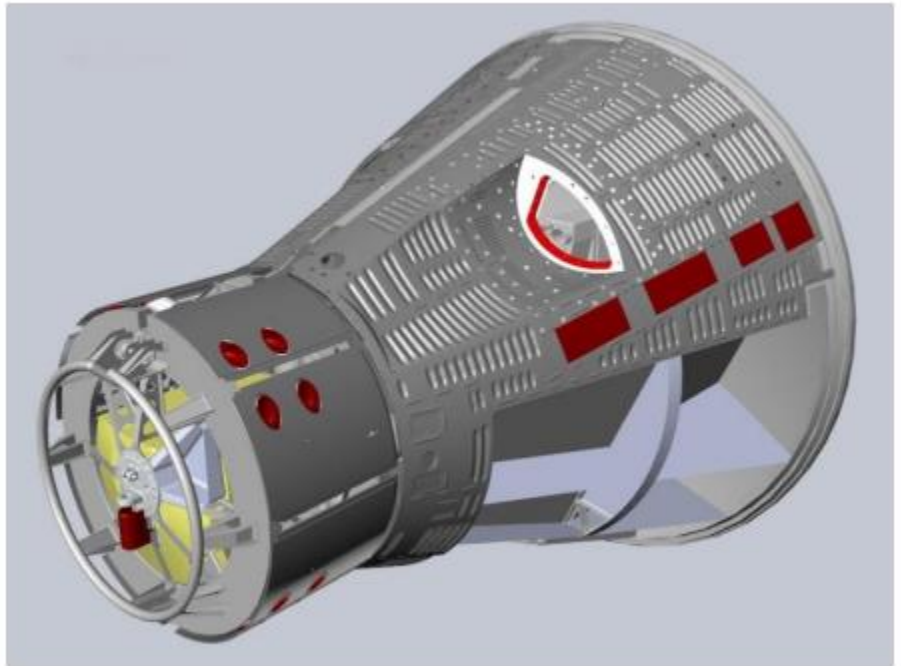
## The Target Market

SpaceOps will place special emphasis on marketing the U.S. Government and their agencies, in providing spacecraft services for shuttling astronauts back and forth to the International Space Station, construction and replenishment of space stations, satellite deployment and servicing, and debris de-orbiting. Marketing efforts will also be placed on 7 supporting manufacturers of satellites and organizations and individuals having a requirement or a desire to travel in space. Although the United States Government will be given first priority for seats and cargo on the spacecraft, whenever the U.S. government has no immediate requirement, other countries, companies, and individuals will be given an opportunity to reserve a seat and/or cargo space. A major objective of SpaceOps is to propel the company into a prominent market position with steady growth over a relatively short period of time. The current industry demand for spacecraft access combined with the growing interest in the next-generation infrastructure, places SpaceOps in the right industry at the right time. The company will secure contracts one year in advance of launch date for crew seating and cargo reservations. This time period will be utilized for mission planning, crew training for assigned tasks, and preparing the spacecraft for the launch mode.

The plan to position the company is well underway.

The company has:

- Identified the major users having in-orbit space travel requirements.
- Organized the users into groups and identified their common needs.
- Conducted meetings with partnering contractors to discuss major milestones and schedule completion dates.
- Conducted meetings with former astronauts on crew requirements and potential customer spacecraft users.



GEMINI CAPSULE

## The Management

The present management team consists of experienced professionals who have successfully managed and operated companies specializing in the aerospace industry for a number of years. Their knowledge and contacts within the space industry will prove invaluable in assisting SpaceOps in the achievement of its goals and objectives.

All individuals on the team are highly experienced in the major components that make up a spacecraft development organization, and have unique experience in the design, construction, operations, and maintenance of the major functions associated with developing spacecraft for launching into orbit. The Eclipse Spacecraft will be built and maintained utilizing the same high standards of quality, within budget, and well within time constraints.

## The Board of Directors

The SpaceOps Board of Directors membership includes the following individuals:

- Craig Russell                                      Chairman of the Board
- Herbert Guendel                                      Vice Chairman of the Board, CTO
- Peter Llewellyn                                      Board Member, CFO

Additional members may be appointed by the Board in the future to add certain space industry expertise in assisting the corporation in meeting its goals and objectives.

## Board of Advisors

Since SpaceOps is headquartered in the center of space technology, the company has immediate access to experts in the various aspects of manned space flight operations to serve as advisors to complement the Board of Directors.

The advisor's role is to provide design review, question business and engineering assumptions, facilitate introduction to business and political allies, and provide historical context to original design decisions.

Additional members of the advisory team include:

**Herbert Guendel** and **Andy Prince**, both with ample experience in managing space projects at NASA-MSFC

**Peter Llewellyn** with expertise in commercial business development, startups and administration.

**Dr. Mohammad Seif**, Professor and Chair of the Mechanical Department at Alabama A&M, with expertise in GD&T and manufacturing processes.

**Mike Broome**, Marine veteran with experience in communications and MBSE.

## Financing Requirements

Funding requirements for SpaceOps' design, manufacturing, training and launch of the Eclipse spacecraft will be spread over three phases. Phase 1 will cover the design of the spacecraft and associated costs for personnel, supplies, equipment, and the development of flight crew procedures. Phase 2 will pertain to the actual manufacturing of the spacecraft, adding modern avionics, flight systems, safety features and training. Phase 3 will be utilized for launching the spacecraft into orbit and will include the cost of recovery of the vehicle. The minimum funding required for each phase is as listed below:

In utilizing pre-existing (public domain) drawings, proven technologies, and materials, Phase 1 funding has been considerably reduced. Phase 2 will overlap onto Phase 1 and Phase 3 will overlap onto Phase 2 because some milestones will require startup in the previous phases in order to meet launch target milestones. SpaceOps is looking for a total investment of \$160,000,000 to take the company through all three phases of start-up activity. The company is looking for private investors as well as traditional and alternative market lenders.

The company seeks a minimum of \$40,000,000 for the completion of Phase 1, an additional \$67,000,000 for Phase 2, and \$53,000,000 for Phase 3. For a total of 160 million dollars.



## SpaceOps' Key to Success

The identified major tasks that are necessary for the SpaceOps Organization to be successful are as follows:

- Identifying a critical mass of high probability customers.
- Establishing an efficient organization and obtaining necessary financing.
- Staffing the organization with dedicated employees and managers who have the required technical and business skills.
- Obtaining all necessary leases, agreements, permits and licenses in a timely manner and on reasonable terms.
- Forming partnerships or alliances to share risks. (Launch Operation agreements, manufacturing agreements, et al.)
- Establishing marketing channels and overcoming barriers to entry.
- Controlling costs to meet or exceed pricing objectives.
- Leveraging the best of current and newly-developed technologies to build a top-quality space craft that can be deployed quickly and cost effectively.