



MIND THE GAP IN LOW EARTH ORBIT

For more than 20 years, the International Space Station (ISS) has supported continuous international crewed operations. An entire generation has never known a world where people aren't living and working in space.

The success and longevity of the ISS is due in no small part to its international nature. Far too often, we take the ISS partnership for granted, when in fact it represents an unprecedented international collaboration that has proved that global human spaceflight cooperation is both possible and beneficial.

Moreover, for the past two decades, the ISS has proverbially and literally been an outpost on the frontier of science. More than 3,000 experiments have been conducted on the ISS in a diverse array of fields ranging from fundamental physics and Earth observation to biomedical studies and advanced manufacturing demonstrations.

Not only has the ISS supported unique science, the station has also been a singular

source of soft power for the United States. America has served as the heart and glue for the station's international coalition, enabling the U.S. to maintain its role as the world's preeminent spacefaring nation. However, in the harsh environment of space, nothing is permanent. Ideally, the ISS could serve as a platform for innovation for another decade and NASA should leverage every bit of utility it can get out of the station for as long as it can. Unfortunately, the ISS will inevitably need to be retired, and it is incumbent upon NASA and the entire American space community to avoid a space station gap.

This has happened before, with America losing the ability to launch astronauts into space and depending exclusively on Russia for crewed transportation for nearly

a decade. This capability gap represented a holistic failure of planning and foresight that, thanks to public private partnerships and commercial space capabilities, the nation is now starting to recover from. Yet, despite having only recently overcome a human space launch gap, the U.S. is already facing a space station gap that could be more pernicious than any other challenge that NASA has faced in the modern era.

THE PRICE OF INACTION

If the space industry and relevant policy-makers fail to take robust action quickly, the U.S. will experience a crippling and lengthy space station gap. At a time when scientists are only beginning to understand the importance of microgravity research, development and manufacturing, the U.S. will lose access to low Earth orbit (LEO) and all the scientific benefits this unique environment has to offer. Additionally, America's ability to train astronauts and prepare for long-duration missions to the moon and Mars will be lost, and NASA's

astronaut corps will shrink to a fraction of its current size.

Moreover, a space station gap will result in ceding both LEO and global leadership to China.

In April, China launched the first element of its new 66 metric ton three-module space station. China has learned from our experience with the ISS and is replicating both the capabilities of the station as well as the diplomatic and geopolitical benefits that a crewed LEO platform offers. During the next two years, China will conduct a flurry of activities to build this next-generation orbital outpost. Unless plans for an American commercial space station are executed with alacrity, this Chinese station will soon become the only crewed platform in LEO. In addition to ceding the benefits of microgravity research, development and manufacturing, as well as astronaut training to China, the U.S. will lose its role as the global leader in human spaceflight.

Space has always been closely intertwined with global politics. The Apollo era competition to land humans on the moon of course serves as the primary example of this, but the ISS's role in geopolitics potentially rivals even that of Apollo. Over the past two decades, the ISS has served as a beacon of global cooperation supporting experiments from more than 100 nations and astronauts from 18. The ISS has deepened existing relationships with longtime American allies while broadening U.S. outreach to countries that are new to human spaceflight. Additionally, under the auspices of American leadership, ISS operations, including launch activities, have been both transparent and safe.

If the U.S. cedes LEO to China, we will abandon not only science and astronautics, but also our values, leaving China to set the agenda for humanity's future in space. China will become the new global leader in astronautics and will enjoy the nontrivial political and diplomatic benefits that such a position brings. By becoming the only nation with a crewed platform in

If the U.S. cedes LEO to China, we will abandon not only science and astronautics, but also our values, leaving China to set the agenda for humanity's future in space.

LEO, China will demonstrate, in both perception and reality, that its technologies and organizational capabilities are superior to the U.S. in this vital arena.

China already weaves space in to its overall geopolitical strategy, including satellites and astronaut seats in its trade agreements and treaties. China also wisely leverages space in its relationship with the United Nations and has already selected payloads that will be flown on its space station from a variety of developing countries. A U.S. space station gap wherein China has the only crewed platform in orbit will further a narrative of American decline in the face of Chinese preeminence, the results of which will harm our nation's global soft power and the perception of the U.S. and the values it stands for.

Lastly, it's important to note the devastating effect a space station gap will have on the American space launch industry. America has spent billions of dollars developing new cargo and crew systems. These programs have energized the U.S. space launch industrial base and spurred innovations that have allowed America to recapture the commercial space launch market, which had previously been lost to overseas competition. Without a space station, demand for launch services will drop dramatically, jeopardizing not only American capabilities and science in LEO, but also U.S. launch capabilities and competitiveness. The negative effects of the loss of crewed LEO operations will thereby be felt far beyond NASA and will inevitably become a nontrivial threat to national security as well.

The overwhelming cost to the U.S. of a space station gap could not be more clear.

Fortunately, the solution is equally apparent. Public-private partnerships and the rise of commercial space is transforming the space world.

Due in no small part to innovative leadership by NASA through initiatives such as the Commercial Orbital Transportation Services (COTS) program and the Commercial Resupply Services (CRS) contracts, the private sector has been able to deliver cargo and crew to LEO.

COMMERCIAL LEO DESTINATIONS

The obvious next step is for commercial firms to provide NASA with not just transportation, but a platform in LEO. A commercial space station could deliver all the benefits generated by the ISS along with renewed global outreach, enhanced affordability and continued scientific innovations. However, even with the private sector's efficiencies, designing, developing and deploying a commercial space station will require substantial time and resources.

The private sector can meet this challenge, but it cannot do so alone. As in the COTS and CRS programs, NASA has a critical role to play. Specifically, NASA must serve as a catalyst and customer for the new commercial station. The agency must do all that it can to help stimulate demand for microgravity services. This means supporting projects on the ISS now that demonstrate how the microgravity environment can be used to manufacture new substances, produce advanced technologies and develop cutting-edge medical treatments that could transform a variety of fields here on Earth.

NASA should focus its support on activities with the greatest near-term >

COMMENTARY Mike Gold

< > potential to generate revenue that could help pay for the costs of a future commercial space station.

Unfortunately, although important to both space station operations and American competitiveness, profitable on-orbit manufacturing is unlikely to develop in the near future. Therefore, NASA has an immediate and vital role to play as a sophisticated customer for a commercial space station, and the agency's Commercial LEO Destinations (CLD) project is a step in the right direction.

Over its 60-year history, NASA has been a trailblazer, not just in exploration, but also in technology investment and procurement methodology. Other Transaction Authority, which led to the rise and dominance of the American commercial space industry, was first utilized at NASA through Space Act Agreements (SAAs). SAAs were used for COTS, which garnered substantial private sector investment. Through COTS and other public-private partnerships such as the Bigelow Expandable Activity Module, NASA has expertly utilized its power as a customer to encourage outside investment. NASA purchasing systems and hardware sends a strong signal to investors and entrepreneurs who subsequently follow the agency's lead.

In regard to private sector capabilities, buoyed by private equity, SPACs and venture capital generally, the commercial space field has never enjoyed greater financial wherewithal. NASA would be wise to leverage this unprecedented period to further evolve the commercial space paradigm. Under COTS and CRS, the government paid for the private sector to develop services that the government then purchased. This model was wildly successful and saved the taxpayer billions of dollars. For activities that are within the reach of the private sector, NASA has and should continue to enter into public-private partnerships, allowing the agency to focus its resources on the frontiers of exploration and technology.



A Northrop Grumman Cygnus cargo tug developed under NASA's Commercial Orbital Transportation Services program approaches the International Space Station's Canadarm 2 in February.

Despite past success, the existing commercial space paradigm must continue to evolve, and the next step is for the government to serve primarily as a customer. The private sector has the desire and ability to fund the development and deployment of a commercial space station.

However, for companies to access sufficient capital to field a commercial space station, NASA must lean forward as much as it can to reassure industry that it will be a robust and ongoing customer. NASA's desire to continuously fly two crew members in LEO and perform 200 investigations per year is a good start. If NASA can incorporate such a commitment into the initial CLD SAAs and potentially include additional crew and investigations in the future, such actions will position the private sector for success.

Change is inevitable, but it is also beneficial and necessary for institutions, ideas and even individuals to survive and thrive. The environment in LEO is changing and American capabilities must also change to

meet tomorrow's challenges. China is wisely investing in crewed LEO operations and making strong diplomatic overtures to build a global coalition for its space program. To avoid ceding LEO to China, the U.S. must lean into its traditional strengths, specifically, entrepreneurialism and innovation, both of which are driven by the freedom and diversity that are the twin pillars of American society.

Taking the concept of a commercial space station from idea to reality will require a concerted effort from all of us. NASA, Congress, the executive branch and industry must all work quickly and in unison. Together, we can build a bridge that will allow America to safely and successfully cross over the space station gap, on a path toward a future of peace and prosperity in LEO and beyond for the U.S. and all of humanity to enjoy. **SN**

MIKE GOLD IS REDWIRE'S EXECUTIVE VICE PRESIDENT OF CIVIL SPACE BUSINESS DEVELOPMENT AND EXTERNAL AFFAIRS.

Forward Looking Statements

This document includes “forward looking statements” within the meaning of the “safe harbor” provisions of the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as “forecast,” “intend,” “seek,” “target,” “anticipate,” “believe,” “expect,” “estimate,” “plan,” “outlook,” and “project” and other similar expressions that predict or indicate future events or trends or that are not statements of historical matters.

Such forward looking statements include estimated financial information, including without limitation, forecasted revenue and revenue CAGR. Such forward looking statements with respect to revenues, earnings, performance, strategies, prospects and other aspects of the businesses of Genesis Park Acquisition Corp., Redwire or the combined company after completion of the Business Combination are based on current expectations that are subject to risks and uncertainties. A number of factors could cause actual results or outcomes to differ materially from those indicated by such forward looking statements. These factors include, but are not limited to: (1) the occurrence of any event, change or other circumstances that could give rise to the termination of the merger agreement governing the proposed business combination; (2) the inability to complete the transactions contemplated by the merger agreement due to the failure to obtain approval of the shareholders of Genesis Park Acquisition Corp. or other conditions to closing in the merger agreement; (3) the ability to meet NYSE’s listing standards following the consummation of the transactions contemplated by the merger agreement; (4) the risk that the proposed transaction disrupts current plans and operations of Redwire as a result of the announcement and consummation of the transactions described herein; (5) the ability to recognize the anticipated benefits of the proposed business combination, which may be affected by, among other things, competition, the ability of the combined company to grow and manage growth profitably, maintain relationships with customers and suppliers and retain its management and key employees; (6) costs related to the proposed business combination; (7) changes in applicable laws or regulations; (8) the possibility that Redwire may be adversely affected by other economic, business, and/or competitive factors; and (9) other risks and uncertainties indicated from time to time in other documents filed or to be filed with the SEC by Genesis Park Acquisition Corp.

You are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Genesis Park Acquisition Corp. and Redwire undertake no commitment to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law.

Additional Information

In connection with the proposed business combination between Redwire and Genesis Park Acquisition Corp., Genesis Park Acquisition Corp. intends to file with the SEC a preliminary proxy statement / prospectus and will mail a definitive proxy statement / prospectus and other relevant documentation to Genesis Park Acquisition Corp. shareholders. This document does not contain all the information that should be considered concerning the proposed business combination. It is not intended to form the basis of any investment decision or any other decision in respect to the proposed business combination. Genesis Park Acquisition Corp. shareholders and other interested persons are advised to read, when available, the preliminary proxy statement / prospectus and any amendments thereto, and the definitive proxy statement / prospectus in connection with Genesis Park Acquisition Corp.’s solicitation of proxies for the special meeting to be held to approve the transactions contemplated by the proposed business combination because these materials will contain important information about Redwire, Genesis Park Acquisition Corp. and the proposed business combination. The definitive proxy statement / prospectus will be mailed to Genesis Park Acquisition Corp. shareholders as of a record date to be established for voting on the proposed business combination when it becomes available.

Shareholders will also be able to obtain a copy of the preliminary proxy statement / prospectus and the definitive proxy statement / prospectus once they are available, without charge, at the SEC's website at <http://sec.gov> or by directing a request to: investorrelations@redwirespace.com.

This document shall not constitute a solicitation of a proxy, consent or authorization with respect to any securities or in respect of the proposed business combination.

Participants in the Solicitation

Genesis Park Acquisition Corp. and its directors and officers may be deemed participants in the solicitation of proxies of Genesis Park Acquisition Corp. shareholders in connection with the proposed business combination. Genesis Park Acquisition Corp. shareholders and other interested persons may obtain, without charge, more detailed information regarding the directors and officers of Genesis Park Acquisition Corp. in Genesis Park Acquisition Corp.'s prospectus relating to its initial public offering filed with the SEC on November 24, 2020. Redwire and its directors and executive officers may also be deemed to be participants in the solicitation of proxies from the shareholders of Genesis Park Acquisition Corp. in connection with the Business Combination.

Information regarding the persons who may, under SEC rules, be deemed participants in the solicitation of proxies to Genesis Park Acquisition Corp. shareholders in connection with the proposed business combination will be set forth in the proxy statement / prospectus for the transaction when available. Additional information regarding the interests of participants in the solicitation of proxies in connection with the proposed transaction will be included in the proxy statement / prospectus that Genesis Park Acquisition Corp. intends to file with the SEC.