

# SPACENEWS®

Redwire opens digital engineering facility aimed at national security space agencies

by Sandra Erwin — August 19, 2021



Redwire opened the Hyperion Operational Space Simulation Laboratory to help customers design next-generation space architectures. Credit: Redwire

Redwire's Dean Bellamy: DoD could use digital engineering to develop satellites, test their performance and resilience against cyber attacks

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WASHINGTON — Redwire is opening a digital engineering facility where government agencies and aerospace companies can prototype hardware, design space architectures and concepts of operations, the company announced Aug. 19.

The facility, called Hyperion Operational Space Simulation Laboratory, is a virtual environment accessible from remote locations.

Redwire, based in Jacksonville, Florida, is a new space venture formed in 2020 that has since acquired a number of companies focused on space infrastructure and manufacturing technology.

The digital engineering lab was funded by Redwire in hopes to attract government customers that want to experiment and prototype systems in a digital environment that replicates real-world hardware and software — a technique known as digital twin.

Dean Bellamy, Redwire's executive vice president of national security space, said the Hyperion facility could be used by the military, for example, to develop new satellite designs, test their performance and resilience against cyber attacks.

Defense Department acquisition programs get criticized for taking too long and not keeping up with threats, Bellamy said. The use of digital engineering would allow DoD to experiment with digital models before it buys hardware.

Developing satellites with digital twins makes it easier to upgrade systems with new software, Bellamy said.

"So as we build and manufacture the satellite, you're making the architectural trades, building the concept of operations and planning technology improvements," he said.

"Once you launch that satellite, if you wanted to make any modifications to that software or maybe add third party software, we can do it on the ground with the digital twin which is the backup, before you actually do it to the spacecraft," he added.

Redwire boosted its expertise in digital engineering and spacecraft development when it acquired Oakman Aerospace, based in Littleton, Colorado.

Oakman Aerospace developed a modular open systems architecture aimed at government and commercial space companies planning next-generation systems.

The Air Force Research Laboratory last year awarded Redwire a contract for a Hybrid Architecture Laboratory Operational Environment to model concepts for military operations such as the Joint All-Domain Command and Control (JADC2) which is a Pentagon initiative to connect sensors and share data across the military services.

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The digital engineering lab can help to simulate complex concepts like JADC2. “It brings in the entire architecture so it can be visualized,” Bellamy said. At the new Hyperion facility, users can see how a satellite constellation performs when it’s transferring data or how systems respond against cyber threats.

“This allows you to actually digitally do architecture trades and move things in and out,” he said.

Digital engineering is one of the technologies in which Redwire plans to make large investments in order to grow its government and national security business, Bellamy said.

Bellamy, a retired U.S. Air Force colonel, joined Redwire in May. He was previously vice president of space strategies at Peraton, a government contractor that works with DoD, NASA and the intelligence community.

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**Additional Information**

In connection with the proposed business combination between Redwire and Genesis Park Acquisition Corp., Genesis Park Acquisition Corp. filed with the SEC a definitive proxy statement / prospectus on August 11, 2021 and is mailing the 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 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 is being mailed to Genesis Park Acquisition Corp. shareholders as of August 2, 2021, the record date established for voting on the proposed business combination.

Shareholders are also able to obtain a copy of the definitive proxy statement / prospectus, without charge, at the SEC's website at <http://sec.gov> or by directing a written request to Genesis Park Acquisition Corp., 2000 Edwards Street, Suite B, Houston, Texas 77007.

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.

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Information regarding the persons who may, under SEC rules, be deemed participants in the solicitation of proxies from Genesis Park Acquisition Corp. shareholders in connection with the proposed business combination is set forth in the definitive proxy statement / prospectus for the transaction. Additional information regarding the interests of participants in the solicitation of proxies in connection with the proposed transaction is included in the definitive proxy statement / prospectus Genesis Park Acquisition Corp. filed with the SEC.