

5 Space Stocks to Watch Despite Virgin Orbit's Crash Back to Earth

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Space stocks have seen 'falling orbits' over the past year with eResearch's equal-weighted space index down over 34%. Adding to the decline, Richard Branson's [Virgin Orbit](#) filed for bankruptcy this week, after a launch failure negatively impacted finances.

Virgin Orbit Looming Bankruptcy

Virgin Orbit aimed to launch small satellites into orbit using a modified Boeing 747 plane, filed for Chapter 11 bankruptcy this week after facing a series of financial and technical challenges. The company had failed to secure enough funding to recover from a rocket launch failure in January, which was supposed to be the first orbital space launch from British soil.

Virgin Orbit said it was looking for a buyer who would be interested in its cutting-edge launch technology and its remaining assets. The company also laid off 85% of its workforce last week, leaving only a few employees to maintain its operations.

Impact on Virgin Galactic

The Virgin Orbit bankruptcy filing has raised questions about the future of Virgin Orbit's sister company, [Virgin Galactic](#), which also relies on Branson's Virgin Group for funding and shares some of the same technology, personnel, resources, and infrastructure.

Virgin Galactic, which aims to fly paying customers to the edge of space on a suborbital spaceplane, has faced its own challenges in recent years. The company has delayed its first commercial flights several times, citing safety issues and regulatory hurdles. It also faces competition from other space tourism ventures, such as [Blue Origin](#) and [SpaceX](#). Virgin Galactic's stock price has plummeted from a high of \$60.67 in February 2021 to \$3.17 today.

Virgin Orbit's bankruptcy could affect Virgin Galactic's ability to access capital, talent, and technology from its parent company and other investors. It could also damage the reputation and credibility of Branson's space ventures, which have been criticized for being overly ambitious and unrealistic. Some experts have suggested that Virgin Galactic may need to find a new partner or buyer to survive in the increasingly competitive and crowded space industry.

But NASA is going to the Moon!

Despite Virgin Orbit's looming bankruptcy, there is positive news in the industry as [NASA named four astronauts](#) this week who will venture around the Moon on Artemis II. Currently planned to launch in November 2024, the approximately 10-day Artemis II flight will launch on NASA's Orion spacecraft and Space Launch System (SLS) rocket.

Reuters also reported this week that a Starship Super Heavy rocket launch test by Elon Musk's SpaceX company could happen on April 10, according to a planning notice posted by the Federal Aviation Administration (FAA). The upcoming test flight will be the first orbital flight of SpaceX's complete, 394-foot (120-meter) tall Starship rocket system, which comprises of a Starship spacecraft mounted on a "Super Heavy" first-stage booster featuring 33 rocket engines.

eResearch's Equal-Weighted Space Index and Stock Price Changes – Index Down 34.3% Year-over-Year

Name	Apr 05 Close (US\$)	Price Δ 30-days	Price Δ 60-days	Price Δ 90-days	Price Δ YTD	Price Δ YoY
Aerojet Rocketdyne	\$56.28	0.4%	0.8%	0.3%	0.6%	40.5%
AST SpaceMobile	\$4.23	-39.4%	-30.5%	-6.8%	-12.2%	-59.6%
Astra Space	\$0.35	-31.0%	-47.7%	-19.3%	-19.3%	-91.8%
Boeing	\$209.55	-1.1%	1.7%	2.2%	10.0%	9.6%
DISH Network	\$8.60	-21.1%	-43.0%	-42.7%	-38.7%	-73.3%
EchoStar Corporation	\$17.71	-11.5%	-5.8%	8.3%	6.1%	-28.8%
Intuitive Machines	\$10.02	-29.2%	10.0%	-0.1%	0.2%	3.7%
Iridium Communications	\$60.83	-0.4%	2.0%	14.4%	18.3%	43.2%
KULR Technology	\$0.80	-33.9%	-37.5%	-35.5%	-33.4%	-64.5%
Lockheed Martin	\$491.88	2.4%	7.1%	3.1%	1.1%	10.8%
Magellan Aerospace	C\$7.10	-24.1%	-23.6%	-17.8%	-29.0%	-28.1%
Maritime Launch Services	C\$0.18	5.9%	5.9%	80.0%	56.5%	
Maxar Technologies	\$51.19	-0.2%	-0.8%	0.5%	-1.1%	30.9%
Momentum Inc.	\$0.49	-34.0%	-53.7%	-45.3%	-36.5%	-84.9%
Northrop Grumman	\$473.44	0.7%	7.4%	-10.4%	-13.2%	4.7%
Planet Labs PBC	\$3.66	-20.3%	-26.2%	-23.4%	-15.9%	-36.8%
Redwire Corporation	\$2.73	-27.6%	1.5%	28.2%	37.9%	-57.9%
Rocket Lab USA	\$3.68	-17.0%	-30.8%	-11.9%	-2.5%	-55.7%
Sidus Space	\$0.51	-32.8%	-1.0%	-49.4%	-53.1%	-84.9%
Spire Global	\$0.61	-39.6%	-50.4%	-35.2%	-36.5%	-70.1%
Telesat Corporation	C\$11.74	2.1%	-9.0%	-7.4%	18.5%	-44.6%
Terran Orbital	\$1.66	-29.2%	-14.6%	24.6%	4.9%	-76.7%
Viasat	\$33.31	-7.2%	-9.3%	-4.4%	5.2%	-32.9%
Virgin Galactic	\$3.17	-41.3%	-47.8%	-13.3%	-8.8%	-69.9%
Virgin Orbit	\$0.16	-86.6%	-90.8%	-90.2%	-91.2%	-97.8%
eResearch's Equal Weighted Space Index (1-Year): Down 34.3% year-over-year						

5 Space Stocks to Watch

Industry reports have the space industry hitting a value of \$1.4 trillion by 2030, so that could translate into a sizeable potential for revenue and profit growth for space-focused companies, as well as increasing demand for their products and services.

With multiple public and private companies entering the industry, these new entrants are lowering the cost and increasing the frequency of launching rockets and satellites, as well as offering new services such as space tourism, asteroid mining, and point-to-point transportation. These activities can create more opportunities for investors to participate in the

space economy and support its development.

Here are 5 space stocks to watch with positive EBITDA and low Enterprise Value to EBITDA (“EV/EBITDA”) that should weather any ‘cosmic’ investing storms.

[Aerojet Rocketdyne \(NYSE: AJRD\)](#)

Aerojet Rocketdyne is a leading company in the aerospace and defense industry. It designs, develops, and manufactures propulsion systems for rockets, missiles, satellites, and spacecraft. Aerojet Rocketdyne has a history of innovation and excellence that spans more than seven decades. It supports critical missions for the U.S. government, commercial customers, and international partners.

[Lockheed Martin \(NYSE: LMT\)](#)

Lockheed Martin is an American corporation that operates in the fields of aerospace, defense, information security, and technology. It is the world’s largest defense contractor by revenue and provides products and services for the U.S. Department of Defense and other government agencies, as well as international customers. Some of its flagship products include the F-35 fighter jet, the Orion spacecraft, the Aegis combat system, and the Sikorsky helicopter.

[Magellan Aerospace \(TSX: MAL\)](#)

Magellan Aerospace is a global, integrated aerospace company that provides complex assemblies and systems solutions to aircraft and engine manufacturers, and defense and space agencies worldwide. Magellan Aerospace is a leader in the development and production of advanced aerospace technologies, such as microsatellites, castings, and horizontal tail assemblies.

Maxar Technologies (NYSE: MAXR)

Maxar Technologies is a space technology company that specializes in manufacturing communication, Earth observation, radar, and on-orbit servicing satellites, satellite products, and related services. It also provides high-resolution satellite imagery, geospatial data, and analytics for various industries and applications.

Viasat (NASDAQ: VSAT)

Viasat is a global communications company that provides high-speed satellite broadband services and secure networking systems to government and commercial customers. Viasat's products and services enable fast, reliable and secure access to data, voice, and video applications across air, land, and sea.

eResearch's Space Industry Comp Table

Name	Ticker	Apr 05 Close (US\$)	Mkt Cap (US\$ M)	Cash (US\$ M)	Debt (US\$ M)	EV (US\$ M)	REVENUE (US\$ M)			EBITDA (US\$ M)			EV/Revenue			EV/EBITDA		
							2021A	2022A	2023E	2021A	2022A	2023E	2021A	2022A	2023E	2021A	2022A	2023E
Aerojet Rocketdyne	NYSE:AJRD	\$56.28	\$4,529	\$333	\$359	\$4,555	\$2,188	\$2,238	\$2,321	\$303	\$273	\$300	2.1x	2.0x	2.0x	15.0x	16.7x	15.2x
AST SpaceMobile	NASDAQ:ASTS	\$4.23	\$323	\$239	\$13	\$323	\$12	\$14	n/a	-\$84	-\$141	n/a	24.5x	22.0x				
Astra Space	NASDAQ:ASTR	\$0.35	\$103	\$103	\$13	\$13	\$0	\$9	\$27	-\$154	-\$248	-\$137		0.5x	0.2x			
Boeing	NYSE:BA	\$209.55	\$128,164	\$17,220	\$58,582	\$169,561	\$62,286	\$66,608	\$78,609	\$1,639	\$1,647	\$5,297	2.7x	2.5x	2.1x	101.9x	101.4x	31.5x
DISH Network	NASDAQ:DISH	\$8.60	\$4,594	\$2,621	\$24,231	\$26,671	\$17,881	\$16,679	\$16,192	\$3,928	\$2,763	\$2,228	1.5x	1.6x	1.6x	6.8x	9.6x	12.0x
EchoStar Corporation	NASDAQ:SATS	\$17.71	\$1,484	\$1,678	\$1,651	\$1,553	\$1,986	\$1,998	\$1,875	\$683	\$617	\$530	0.8x	0.8x	0.8x	2.3x	2.5x	2.9x
Intuitive Machines	NASDAQ:LUNR	\$10.02	\$183	\$9	\$23	\$197	\$73	\$0	\$389	-\$37	-\$19	-\$31	2.7x		0.5x			
Iridium Communications	NASDAQ:IRDM	\$60.83	\$7,802	\$169	\$1,507	\$9,140	\$615	\$721	\$792	\$352	\$380	\$458	14.7x	12.5x	11.4x	25.7x	23.8x	19.7x
KULR Technology	NYSE:AM:KULR	\$0.80	\$95	\$10	\$0	\$85	\$2	\$4	\$15	-\$11	-\$18	-\$16	34.4x	20.8x	5.4x			
Lockheed Martin	NYSE:LMT	\$491.88	\$124,343	\$2,547	\$16,646	\$138,442	\$67,044	\$65,984	\$65,745	\$9,010	\$8,620	\$9,814	2.1x	2.1x	2.1x	15.5x	16.2x	14.2x
Magellan Aerospace	TSX:MAL	C\$7.10	C\$419	C\$41	C\$63	C\$445	C\$688	C\$765	C\$832	C\$39	C\$26	C\$39	0.6x	0.6x	0.5x	11.2x	16.9x	11.2x
Maritime Launch Services	NEOE:MAXQ	C\$0.18	C\$69	C\$3	C\$8	C\$73	C\$0	C\$0	n/a	-\$C2	-\$C6	n/a						
Maxar Technologies	NYSE:MAXR	\$51.19	\$3,882	\$52	\$2,394	\$6,225	\$1,770	\$1,605	\$1,898	\$427	\$286	\$526	3.5x	3.9x	3.3x	14.5x	21.7x	11.8x
Momentus Inc.	NASDAQ:MNTS	\$0.49	\$49	\$61	\$21	\$9	\$0	\$0	\$2	-\$99	-\$90	-\$56	20.5x	22.6x	3.0x			
Northrop Grumman	NYSE:NOC	\$473.44	\$71,207	\$2,577	\$15,000	\$83,298	\$35,667	\$36,602	\$38,324	\$8,734	\$7,680	\$5,343	2.4x	2.3x	2.2x	9.7x	11.0x	15.8x
Planet Labs PBC	NYSE:PL	\$3.66	\$1,023	\$409	\$22	\$636	\$131	\$191	\$255	-\$87	-\$135	-\$44	4.7x	3.2x	2.4x			
Redwire Corporation	NYSE:RDW	\$2.73	\$183	\$28	\$109	\$327	\$138	\$161	\$235	-\$33	-\$35	-\$2	1.9x	1.6x	1.1x			
Rocket Lab USA	NASDAQ:RKLB	\$3.68	\$1,849	\$472	\$157	\$1,524	\$62	\$211	\$288	-\$91	-\$105	-\$73	23.1x	6.8x	5.0x			
Sidus Space	NASDAQ:SIDU	\$0.51	\$18	\$2	\$2	\$18	\$1	\$7	\$10	-\$3	-\$10	n/a	12.5x	2.4x	1.8x			
Spire Global	NYSE:SPIR	\$0.61	\$87	\$70	\$112	\$128	\$43	\$80	\$106	-\$52	-\$50	-\$20	3.0x	1.6x	1.2x			
Telesat Corporation	TSX:TSAT	C\$11.74	C\$143	C\$1,678	C\$3,884	C\$3,705	C\$758	C\$759	n/a	C\$623	C\$494	n/a	4.4x	4.4x		5.4x	6.8x	
Terran Orbital	NYSE:LLAP	\$1.66	\$258	\$94	\$171	\$335	\$41	\$94	\$241	-\$34	-\$125	-\$38	7.7x	3.4x	1.3x			
Viasat	NASDAQ:VSAT	\$33.31	\$2,599	\$182	\$3,273	\$5,723	\$2,406	\$2,867	\$2,649	\$389	\$463	\$502	2.4x	2.0x	2.1x	14.6x	12.2x	11.3x
Virgin Galactic	NYSE:SPCE	\$3.17	\$961	\$909	\$476	\$498	\$3	\$2	\$12	-\$310	-\$491	-\$489	138.7x	197.4x	37.2x			
Virgin Orbit	NASDAQ:VORB	\$0.16	\$50	\$71	\$58	\$37	\$7	\$0	\$133	-\$158	-\$173	-\$129	5.7x		0.3x			
Mean (If EV/Revenue <20; EV/EBITDA <100)													4.2x	3.0x	2.4x	12.1x	13.7x	14.6x
Median													3.5x	2.5x	2.0x	14.5x	16.2x	13.1x

Imperial Mining Sets Comprehensive 2021 Plan at Crater Lake after \$2.6M Financing

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After a positive summer drill program at its flagship **scandium-rare earth** Crater Lake Property in northeastern Quebec, [Imperial Mining Group Ltd.](#) (TSXV: IPG) successfully closed a \$2.6 million financing in December to accelerate the project forward in 2021.

Imperial Mining plans to use the proceeds to complete definition drilling at Crater Lake's "TG Zone", and to deliver both a 43-101 Resource Report and a Preliminary Economic Assessment (PEA) by the end of June 2021.

Last trading at \$0.16, Imperial Mining Group has a market cap of \$20 million and a PEA could re-rate the company, shifting it closer to the \$175 million market cap of NioCorp Developments Ltd. (TSX: NB | OTCQX: NIOBF) that has a Feasibility Study at its Elk Creek niobium-scandium project in Nebraska, United States.

Peter Cashin, President & CEO of Imperial Mining Group, recently [commented](#), "I am very pleased of the positive response that the market has shown for our private placement. The financing was oversubscribed, and we believe that it was motivated by the recent significant announcements in the critical metal space, in particular for scandium and the rare earths."

Scandium Alloys at Home and in Space

Manufacturers in many industries, including automotive,

aerospace, and defense, recognize that scandium-modified aluminum alloy materials could become a critical input into their production processes.

With the push for lighter and stronger materials to make vehicles more fuel-efficient and the need for tough and durable metal alloys for the resurgence in space activity, scandium-aluminum “superalloys” have been already used by NASA and the European Space Agency (ESA).

In a March 2020 speech at the Satellite 2020 Conference, Elon Musk, founder of Tesla (NASDAQ: TSLA) and SpaceX stated that the aerospace engineers at SpaceX were going to switch to a different alloy “pretty soon” to replace the current stainless-steel alloy, known as 301.

Scandium-aluminium alloys are highly valued as an important lightweight material and are one-third the weight of steel and 60 % of the weight of titanium alloys.

Scandium-aluminium alloys are also corrosion-resistant and can be used in a variety of industries, including aerospace, automotive, and consumer products, such as baseball bats, bicycle frames, and golf clubs.

A small percentage of scandium alloyed with aluminum enables aluminum to be effectively welded to another piece of scandium-aluminum alloy, without the need for heavy hardware to join the pieces together.

Scandium-aluminium alloys are currently being used by California-based Relativity Space, a private aerospace manufacturing company. Relativity Space’s massive 3D printer can create a rocket from raw material to flight in 60 days.

The automotive industry could be a large market opportunity for

scandium. With scandium-aluminum's self-welding abilities, engine blocks could be constructed using 3D printers.

In addition, according to a recent report, the average passenger vehicle contains over 150 kilograms of aluminum and the average light truck contains over 230 kilograms of aluminum. If only 1% of the traditional aluminum used in the approximately 17 million light vehicles (cars and light trucks) produced in the United States each year, switched to scandium-aluminum, that impact would create a demand for 35 tonnes of scandium each year.

With current scandium production estimated between 25-35 tonnes per year as such, this type of demand would immediately double the current supply requirement.

Scandium

Scandium is an element, sometimes classified as a rare earth metal, and currently, there are no primary scandium mines. Supply comes from the by-product of other mineral extractions from deposits in China, Russia, and more and recently, Australia.

Scandium is not traded on any metal exchange and the price is negotiated between buyer and seller. According to the most recent USGS data sheet on scandium, over the past five years, the price for scandium-oxide has averaged \$4,560 per kilogram.

Scandium and other "critical metals" were thrust into the spotlight last year when President Trump signed an Executive Order addressing the threat to the United States' supply chain from relying on "critical minerals" from "foreign adversaries", specifically identifying China. The 35 mineral commodities deemed critical under the definition included aluminum, gallium, graphite, lithium, manganese, niobium, the rare earth elements group, and scandium.

Crater Lake Property – Scandium & Rare Earth Metals

The 100%-owned Crater Lake Project is located 200 kilometres northeast of Schefferville, Quebec, and covers 2,780 hectares (approximately 6,900 acres). The project hosts three zones of mineralization (Boulder, TG Zone (TGZ), and STG), determined by scandium-rich outcrops, boulders, and recent drilling.

Highlights from the summer drill program included Hole #CL20037 from the TGZ that returned intervals grading up to 253 grams per tonne (g/t) Scandium Oxide (Sc_2O_3) over 29.14 metres (m), including 9.3 m grading 299 g/t Sc_2O_3 and 21.69 m grading 271 g/t Sc_2O_3 including 9.16 m grading 299 g/t Sc_2O_3 .

Importantly, the true thickness of the scandium mineralized zone is estimated to be up to 110 m and is open at depth and along strike.

The company sees major positive factors with the project, including:

- The resource is exposed at the surface, so it is amenable to a low-cost open-pit operation.
- The deposit is high grade relative to its peers and could reduce the CapEx to develop the mine and the OpEx to run the mine.
- The preliminary metallurgy showed strong scandium mineral recoveries.
- The project is in the mining-friendly jurisdiction of Quebec and supported by Quebec's recently launched \$90 million "critical minerals" development fund and Plan Nord, Quebec's economic development strategy to develop natural resource extraction in northern Quebec.
- The deposit is located in close proximity to the 9 aluminum smelters and one alumina refinery in Quebec.

Final Comment

Look for the definition drill results, 43-101 Resource Report, and the PEA to potentially lift the stock price higher this year.